Chwarae Cymru
Play Wales

Playing and being well

A review of recent research into children's play, social policy and practice, with a focus on Wales

Literature review

Acknowledgements

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Chapter 1

Background, scope and summary

Playing and being well: A review of recent research into children's play, social policy and practice, with a focus on Wales has been commissioned by Play Wales, and its policy context is a Welsh one. From the start, the devolved government in Wales has taken a rights-based approach to policy for children and has worked in partnership with Play Wales to develop national policy and strategy in support of children's play. The Welsh Government was the first in the world to make children's play a statutory responsibility for local authorities through its Play Sufficiency Duty, part of the Children and Families (Wales) Measure 2010. At the time of carrying out this literature review, the Play Sufficiency Duty has been in operation for ten years and the Welsh Government is carrying out a Ministerial Review of Play.

The aim of *Playing and being well*, therefore, is to provide current evidence to inform this ongoing work. It also provides an update to *Play for a Change: Play, Policy and Practice – A review of contemporary perspectives*, a literature review carried out by Stuart Lester and Wendy Russell and published by the National Children's Bureau and Play England in 2008. Most of the research for the review was carried out between April 2021 and January 2023 and reflects what was available at that time.

1.1 Scope and approach

Building on *Play for a Change*, we have reviewed three key interrelated and overlapping areas of research:

- contextualising and framing the research on children's play through looking at current research into childhood and social policy relating to children (chapter 2);

- reviewing contemporary research on the role of play in children's wellbeing (chapter 3) and on children's play patterns (chapter 4);

- reviewing approaches to supporting children's play (chapter 5).

Mostly, we have drawn on academic research, but in places (for example in discussions on policy or practice) it has been appropriate to review also the 'grey' literature in policy and advocacy documents and also practitioners' writings (particularly in chapters 2 and 5).

Children's play has been researched across a range of academic disciplines, including biology, evolutionary studies, ethology, neuroscience, developmental and educational psychology, depth psychology, sociology, geography, anthropology, folklore, philosophy, policy studies and more. We have drawn mostly on empirical research (particularly in chapters 3 and 4). However, given that we have sought to bring a critical eye, and given the concerns expressed by some writers regarding both the colonisation and over-romanticisation of children's play by adult advocates and researchers alike, we have also used conceptual research and theory.

In terms of geography, we have drawn on research carried out in minority world countries[1] such as the UK, Northern and Western Europe, North America and Australasia, as this provides comparative data, particularly on play patterns and actions to support children's play. When discussing demographic or policy matters, we have

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[1] The term 'minority world' refers to what is more commonly called 'developed' or 'Western' countries, or more recently, the Global North. Its converse, the 'majority world', is so called because the majority of the world's population inhabit those countries that are often termed 'developing'. Although the terms 'majority' and 'minority' world risk oversimplification, they do seek to 'shift the balance of our world views that frequently privilege "western" and "northern" populations and issues' (Punch and Tisdall, 2012, p. 241).

drawn on Welsh and UK data. We have been open to reviewing literature on children aged 0 to 18 years, although some age ranges have been better researched than others in ways that vary across the three key areas of research. We have defined 'recent' research as research published since 2005, although most sources are considerably more recent than that. As with geography, the currency and relevance of research changes depending on whether it is about, for example, policy, children's play patterns or the benefits of playing. Broadly speaking, we have used the most up-to-date sources we have been able to find. Occasionally, where relevant, we have made reference to classic texts outside of this time frame.

We have had access to three university libraries and have mostly used EBSCO's Discovery service, an inclusive academic search engine that covers most relevant academic databases. At times we have also used Google Scholar. The search terms used are too many to list and have been based on specific areas of research. As the topics were too broad for a systematic review, we have used an integrative, narrative and creative approach (Montuori, 2005; Toracco, 2016). This has involved searching and selecting sources and using 'snowballing' (following up relevant references in articles) to either broaden or refine sources. The narrative, creative aspect involves synthesising sources into conceptual themes and using this to create an original commentary. Given the enormous range of research into childhood and children's play, what we have reviewed is necessarily partial, and given our own research interests and practices, our interpretation is also partial. Although we have made efforts to include a range of perspectives and their critics, we have drawn on a variety of conceptual tools to help us both to organise the material with some kind of coherence and to interpret it. In addition, whilst the team has considerable experience of reading (and some of us teaching) across a range of natural and social science academic disciplines, we acknowledge our limitations in interpreting and summarising complex scientific research, for example details of neuroanatomy and neurochemistry. We have done our best to give an authentic review of this material, but it is possible that there may be misrepresentations due to our lack of specialist knowledge.

1.1.1 A note on language

Language is important and powerful. Technical language allows those working in the same field to communicate clearly with each other. At the same time, it can exclude those who are not specialists. Technical language may comprise, for example, details of brain anatomy or neurological processes, or theoretical concepts from across a range of academic disciplines. It is difficult not to use the language without misrepresenting or oversimplifying complex processes and concepts. The research reviewed here uses terms that we have tried to explain when first introduced, but there may be places where this is not the case. In addition to this, we have provided a glossary at the end of the review.

Language is also important and powerful because it is performative. That is, words often do not merely describe in neutral ways, they act to construct particular ways of understanding that often imply norms and therefore 'abnormality' or otherness. Language changes over time as people become aware of how certain words can either dehumanise, marginalise or judge those who do not comply with what is seen as normal or present an affirming identity. One example is the capitalisation of the term 'Black'. The quotation below gives a flavour of the power of such details:

'black with a lower case "b" is a color, whereas Black with a capital "B" refers to a group of people whose ancestors were born in Africa, were brought to the United States against their will, spilled their blood, sweat and tears to build this nation into a world power and along the way managed to create glorious works of art, passionate music, scientific discoveries, a marvelous cuisine, and untold literary masterpieces. When a copyeditor deletes the capital "B," they are in effect deleting the history and contributions of my people' (Tharps, 2014).

Sometimes there is disagreement about appropriate terminology, and it is difficult to know which words are respectful and appropriate. In addition, often the language used in academic and professional literature differs from the language that some members of the communities being described would themselves prefer. In this review, we have tried to use terms preferred by the communities we describe, although such expressed preferences are not always consistent. In places, and particularly when quoting texts, we have used the language from the articles.

1.2 What has changed over the last 15 years?

Over the 15 years since the research for *Play for a Change* was carried out there have been many changes and developments worth noting, both in research and global and national events.

1.2.1 Research into children's play

There has been a significant growth in academic interest in children's play as evidenced in new academic journals (for example, the *International Journal of Play*, the *American Journal of Play* and the *International Journal of Playwork Practice*, all set up since 2007); the publication of several handbooks on academic research on children's play (for example, Brooker *et al*., 2014; Johnson *et al*., 2015; Pellegrini, 2011; Smith and Roopnarine, 2019) and theory books on play (a few examples include Cohen, 2019; Henricks, 2015a; Lester, 2020; Sicart, 2014; Smith, 2010; Sutton-Smith, 2017).

Although multi-national corporations such as LEGO and Ikea have been investing in research into children's play for some time, this has expanded. One example is the establishment of the LEGO Foundation sponsored Play in Education, Development and Learning (PEDAL) Research Centre at Cambridge University. Another is the establishment at the 2018 World Economic Forum of The Real Play Coalition, co-founded by Unilever (through the Dirt is Good brands of Persil and Omo), the LEGO Foundation, Ikea Group and National Geographic, with current partners being LEGO Foundation, Ikea Group, National Geographic, UNICEF and Arup, working in partnership with Placemaking X and the Resilient Cities Network.

There have been changes, too, in conceptual and methodological approaches to studying childhood and children's play. *Play for a Change* introduced what were at the time fairly radical ideas challenging the dominance and exclusivity of the perspective that play's contribution to childhood was to help children progress through developmental stages towards adulthood. Whilst not dismissing such a perspective, *Play for a Change* offered 'additional perspectives on the key concepts of play and development that are more complex, differentiated and relational' (Lester and Russell, 2008, p. 14). These concepts included a systems approach that sees development as a lifelong reciprocal and entangled relationship of genes, body and environment, and evolution as more than genetic inheritance, thereby dissolving nature/nurture binaries. In addition, *Play for a Change* was published just as what has been called a 'new wave' of childhood studies was emerging that also sought to look beyond classic binaries of nature/culture, adult/child, agency/structure towards a more relational approach (Prout, 2005).

Over the ensuing 15 years, these ideas have been taken up and developed further by childhood scholars across both what are termed the natural and the social sciences (terms that themselves create a binary distinction and can constrain inter- and trans-disciplinary working), often drawing on concepts from philosophy. The ideas are complex and difficult to summarise without oversimplification. Nonetheless, we suggest here, in this introductory chapter, that what connects these different threads is a radical relationality. This relationality is more than interaction of separate organisms, contexts and processes. Phenomena (for example, space, play, bodies and life itself) do not have a stable and fixed pre-existence but are continually in a process of becoming through and as encounters. Such encounters include the tangible, such as other bodies (human, non-human, elemental, organisational), material objects, landscapes, and also the less tangible, such as affects, sensations, desires, as well

as systems and processes (for example, calendars, rules, codes of behaviour, systems of oppression) (Änggård, 2016; Lester, 2020; Mereweather, 2020; Murris, 2019; Prout, 2007; Rautio, 2013a, 2013b; Spyrou, 2017; Taylor and Pacini-Ketchabaw, 2015). Relationality decentres 'the child' (Prout, 2007; Spyrou, 2017; Taylor and Pacini-Ketchabaw, 2015) and brings into focus the liveliness of material objects, turning attention to how human and material forms mutually shape and are shaped by each other (Lester, 2020; Mereweather, 2020; Murris, 2019; Rautio, 2013a, 2013b).

When we began this review, we had thought that we would merely report on this relational turn alongside other, still dominant, more human-centred, binary and linear worldviews. However, as we researched the literature on childhood studies, policy, wellbeing, play and children's play patterns, relationality emerged as central to the narrative we were developing. That narrative is one of a relational capability approach to wellbeing. How this narrative developed and what we mean by it is described in the outline to chapters below.

1.2.2 Policy changes

At international policy level, the intervening 15 years has seen the publication of the United Nations Committee on the Rights of the Child's General Comment on Article 31, children's right to play in 2013. Across the UK, it has seen the introduction of the statutory Play Sufficiency Duty in Wales (which requires local authorities to assess and secure sufficient opportunities for children to play) and the statutory incorporation of play sufficiency assessments in Scotland through the Planning (Scotland) Act 2019, with all three devolved UK countries having active play policies. This is in contrast to the UK government, where the English Play Strategy was cut by the incoming Coalition Government in 2010.

Perhaps one of the most significant shifts in thinking in the 15 years since *Play for a Change* is in appreciating the relevance of broader policy initiatives and the relations between these and children's capability to play. Such a shift has emerged through a range of interrelated forces, including climate change, public health concerns, the influence of advocates for child-friendly environments and, in Wales particularly, the requirement of the Play Sufficiency Duty to work cross-professionally. These forces have shown the relevance of policies concerning sustainable development, planning, urban design and active travel.

Also of significance in the Welsh policy context is the Welsh Government's radical and overarching Well-being of Future Generations (Wales) Act 2015. This act is radical because it places Wales amongst a small number of wellbeing economy governments (including Scotland, Iceland, New Zealand and Finland) focusing on sustainable development through not only economic wellbeing but also social, environmental and cultural wellbeing. The Well-being of Future Generations (Wales) Act 2015 places this broader understanding of wellbeing at the heart of all the work of identified public bodies, which have a duty to plan for a sustainable future, through setting localised objectives for meeting the seven nationally identified wellbeing goals:

- A prosperous Wales

- A resilient Wales

- A healthier Wales

- A more equal Wales

- A Wales of cohesive communities

- A Wales of vibrant culture and thriving Welsh language

- A globally responsible Wales (Jones *et al*., 2020; Welsh Government, 2015).

All other local authority policy making aligns with these wellbeing plans, including the Play Sufficiency Duty. Here, too, is a requirement to work in collaborative and integrated ways with all stakeholders. Whilst children do not explicitly feature much in the Well-being of Future Generations (Wales) Act 2015, other than in terms of health measurements and child development (together with a focus on adverse childhood experiences), the aspirational and overarching nature of the act makes it of interest to this review.

1.2.3 Geo-politics, global economics and other world events

Alongside these policy changes there has been a period of major interrelated political, geopolitical, economic and climate upheaval. Given the relational approach we have taken to this review, such seemingly macro scale forces are deeply enmeshed with children's micro scale everyday lives and their capability to play. This means that our approach to the review is political and underpins both the idea of a relational capability approach to children's wellbeing and the associated acknowledgement that children's capability to play is a matter of spatial justice. The global financial crisis of 2008 led to a period of austerity politics in the UK that brought rising precarity in terms of employment and housing, increasing child poverty and a stark increase in inequalities (Marmot *et al*., 2020) with an estimated 335,000 'excess deaths' (that is, more than would normally be expected) between 2012 and 2019 being attributable to austerity measures (Walsh *et al*., 2022). Specifically for children's play, austerity measures saw unprecedented public spending cuts and the loss of many play and playwork services and infrastructure (Brown and Wragg, 2018; Children's Rights Alliance England, 2015; Gill, 2015b; McKendrick *et al*., 2015; Voce, 2015b, 2021).

The Brexit referendum in 2016 and the UK's subsequent departure from the European Union has added to political and economic uncertainties (Dhingra *et al*., 2022; Welsh Government, 2021f), being projected to make the UK poorer in the long term (Dhingra *et al*., 2022). The European Union (EU) Withdrawal Agreement Act 2020 has implications on human rights generally, implicating children's rights (British Academy, 2020; Children's Commissioners of the United Kingdom of Great Britain and Northern Ireland, 2020). Changes to immigration policies as a result of Brexit have also led to problems of recruiting and retaining staff in health and other public services affecting children (Marmot *et al*., 2020).

The current cost of living crisis has arisen through disruptions to global supply chains as a result of the COVID-19 pandemic (see below), the climate crisis, and the Russian invasion of Ukraine, with consequences predicted to be worse than the pandemic (The Lancet Editorial, 2022). A survey by the Food Foundation (October, 2022) found that one in four UK households with children (four million children) had experienced food insecurity in the previous month, an increase over the previous six months, with these households also experiencing problems with energy costs. Disabled people and households with non-white ethnic groups are disproportionately affected, as is the geographic distribution across the UK. The impact of this crisis on children adds to the educational and health challenges already faced during the pandemic (The Lancet Editorial, 2022).

The COVID-19 pandemic

The COVID-19 pandemic and its impacts have been affected by – and are affecting – many of the issues raised above. The pandemic, including associated lockdowns and other mitigating measures, has created major disruptions to children's lives, including their ability to play with friends.

The first UK lockdown between mid-March to mid-May 2020 required people to stay at home and places such as schools, playgrounds, leisure centres, play centres and other sites where children could meet up and play with friends were closed. During the first lockdown period, the Welsh Government and local authorities in Wales took a number of steps to encourage and support children's play, including:

- keeping childcare settings and schools open for the children of critical workers, with some school hubs employing playworkers

- distributing play packs to vulnerable children

- Play Wales and other organisations sharing play ideas on social media (Welsh Government, 2022).

Children's experiences of the pandemic have varied enormously. Lockdown measures exacerbated already existing inequalities, for example:

- parents in lower-paid jobs not being able to work from home

- families falling into poverty

- unequal access to the resources for home schooling

- children living with domestic violence, disabled children and young carers having limited or no access to support and care services

- children living in poor quality accommodation and with no access to private outside space (Casey and McKendrick, 2022; Children's Commissioner for England, 2020; Cowie and Myers, 2020; Holt and Murray, 2021; Kallio *et al*., 2020; Mukherjee, 2021).

For some children, lockdowns meant more time spent playing with family members and pets, or with friends online. Stories of playful reclaiming of low-traffic streets also abounded in the media and in research, including rainbow trails, teddy bear trails, rock snakes, chalk trails, doorstep discos and doorstep bingo (Casey and McKendrick, 2022; Cowan *et al*., 2021; Kourti *et al*., 2021; Mukherjee, 2021; Russell and Stenning, 2022). Overall, however, children's advocates were concerned about the effects of reduced opportunities for playing, particularly with friends (Barron and Emmett, 2020; Barron *et al*., 2021; Casey and McKendrick, 2022; Kourti *et al*., 2021).

Whilst some children are reported as having been more physically active as a consequence of having more free time, spending some of that time outdoors playing and exercising (Alma Economics, 2021), most studies conclude that children were less physically active, particularly outdoors (Kourti *et al*., 2021). Others report that disparities in obesity rates between children of different ethnic backgrounds and socio-economic status further increased during the pandemic (Jenssen *et al*., 2021).

The significant body of research into children's experiences of the pandemic and mitigating measures offers insights into the importance of play in children's lives (Casey and McKendrick, 2022). For example, the significant reduction in road traffic during the first lockdowns made streets quieter (although not necessarily safer as there were incidents of speeding and an increase in delivery traffic), and there were significant drops in some forms of air pollution as a result (Stenning and Russell, 2020). Many local authorities made changes to road layouts to make them safer for pedestrians and this was encouraged by the UK government (Russell and Stenning, 2021). A number of campaigns asked the UK government to acknowledge children's need and right to play, both through appreciating their ways of using road space and through prioritising play in the return to school (Ferguson *et al*., 2021; Stenning and Russell, 2020; Summer of Play Campaign, 2021; Play First UK, 2020). One international study recommends embedding opportunities for play in policies relating to preparedness for future pandemics and similar crises (Andres *et al*., 2023).

1.3 'Playing and being well': why we chose this title

Finding a title for a review such as this is not easy. It is important to capture key narratives, and titles should ideally be memorable and distinct while at the same time easy to find through an internet search. This may suggest that if we feel the need to explain the title, we have not met these key elements of a good title. Nonetheless, we feel it does deserve some explanation.

As the work progressed, it was clear that the relationship between play and wellbeing was beginning to emerge as significant because that was what the academic research was saying. Such a focus also fits well with the Welsh Government's Well-being of Future Generations (Wales) Act 2015.

So why not call it 'Play and Wellbeing'? Broadly, the answer lies in what each of the two words 'play' and 'wellbeing' perform, returning to the argument that language can privilege particular understandings of concepts. Following what we found in much of the literature, we wished to trouble taken-for-granted assumptions embedded in these two key words and offer forms that unsettled readers slightly and that could disrupt a little (but not too far) the power of common-sense understandings – not to dismiss them, but to add something more.

Both 'play' and 'wellbeing' are nouns, words that describe *things*. A problem with seeing both play and wellbeing as things is that they become fixed. In addition, such words need defining, a process that further fixes ideas about play and wellbeing. Play becomes an activity that can be provided, it has an opposite (not-play), it can be judged as good or bad, it can be instrumentalised. Wellbeing becomes something that individuals either have or not, something that we can achieve, once and for all.

Talking about 'playing' and 'being well' foregrounds processes and relationality. It foregrounds the myriad objects, affects, ideas, practices and more that come together to produce moments of playing and being well in temporary assemblages.[2] It means paying attention to the conditions that support the emergence of playing and being well in fluid and sometimes fleeting ways and in ways that bring change that can have both immediate and longer-term effects. It also means that interventions to support children's play need to acknowledge the differences and singularities of such assemblages. Although some broad principles can be made about what makes playing and being well more likely, these are also influenced by many other local and individual conditions.

We played with *Playing and being well* as a title to see how it felt. One potential way of reading the title might be to see 'well' applying to both playing and being. Initially, we felt this might be problematic if it reinforced ideas about which forms of playing are seen as 'better' than others. An instrumental view of playing connects it to the development of specific skills, meaning that those forms of play thought to develop desired skills are promoted over others that might be seen as disruptive or taboo (Rautio, 2014; Sutton-Smith, 2017; Woodyer *et al*., 2016). On further reflection, and looking at the literature, we conclude that there *are* forms of playing that are problematic for players, for those being played or for others. Seeing play unproblematically as a force for good romanticises it and can obscure playing that, for example, reproduces, performs and perpetuates power inequalities (Bryan, 2019, 2020, 2021; Göncü and Vadeboncoeur, 2015; Grieshaber and McArdle, 2010; Kinard *et al*., 2021; McDonnell, 2019; Trammell, 2020, 2023), is addictive (Sicart, 2014), dangerous, or harmful in other ways (Sutton-Smith, 2017). However, bringing a relational approach to both playing and being well acknowledges harmful forces that can enable forms of play that are not conducive to being well. This is different from adult

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[2] The concept of the assemblage is drawn from the work of Deleuze and Guattari (1998) and refers to *ad hoc* groupings of diverse phenomena that can include people and their relationships, histories, material and symbolic artefacts, technologies, desires, and so on. Assemblages are not fixed entities but are more akin to 'events'; they and the phenomena that combine to co-create them have properties of emergence, opportunism, multiplicity and indeterminacy, meaning that they are open and responsive to what happens along the way.

linear judgements about play, learning and development in that it shifts attention away from a future focus on isolated children's minds and bodies and towards the combined effects of those forces. If all the conditions are right for children to engage in forms of play that they value, it is more likely that moments of being well will also emerge.

The following sections give a brief overview of each chapter, focusing on how the narrative of a relational capability approach develops across each area of research.

1.4 Contextualising and framing the review (chapter 2)

Chapter 2 offers a contextualisation for the review by considering the contemporary literature on studies of childhood and on policy relating to children and play, including assumptions made about children, play and the politics of the production of knowledge itself. Knowledge is never a neutral affair, its ongoing production is also relational. It is always situated, always imbued with questions of power, and so is always an ethical matter; in addition, the way we understand things affects how we act. Narratives, paradigms and understandings produce material-discursive practices[3] that affect adults' relationships with children across all areas of life including family life, the public realm, the cultural sector, education, health, leisure, policy and law. Approaches to studying childhood and children's play – and the critiques of such approaches – highlight the dominance of adult imaginaries over children's lived experiences. Similarly, much research is embedded in minority world perspectives that have their origins in Enlightenment age theories and that retain much of the original colonialist assumptions (Abebe, 2019; Aitken, 2018a; Burman, 2017, 2018; Garrison, 2008; Hanson *et al.*, 2018; Knight, 2019; Konstantin and Emejulu, 2017; Malik, 2019; May, 2011; Owen, 2020; Rudolph, 2017; Spyrou, 2019; Tisdall and Punch, 2012; Varga, 2020). The many different perspectives offered in chapter 2 and throughout the review demonstrate the impossibility – indeed the undesirability – of a single truth about childhood and children's play that can be asserted as 'evidence' and used to inform policy and practice. Instead, it aims to show the value of appreciating multiple ways of knowing and of acknowledging that the way we think affects what we do in supporting children's play.

1.4.1 Studying childhoods

Chapter 2 offers a review of approaches to studying childhood and children, including critiques of these approaches. It opens with a discussion on 'developmentalism' as a consistently dominant narrative in theories of childhood. 'Developmentalism' in this context refers to the dominance of over-simplified and reductive accounts of fixed, predictable and normative ages and stages of child development, and their enduring influence on policy and professional practices. The chapter then reviews the broad field of 'social' studies of childhood that emerged in the second half of the twentieth century as a challenge to the dominance of developmental psychology in childhood studies. Within this 'new paradigm' (Hammersley, 2016; Holmberg, 2018; James and Prout, 1997; James, Jenks and Prout, 1998; Prout, 2011), the naturally developing child was seen as a social construction alongside other constructions such as the evil child and innocent child. Rather than passive objects of socialisation and development, children were seen as active agents in their own lives.

A third and more recent approach to studying childhood is then introduced, one that is sometimes termed a 'new wave' (Holmberg, 2018; Kraftl and Horton, 2019; Kraftl *et al.*, 2019; Ryan, 2011). This has emerged alongside broader philosophical, political and theoretical moves away from modernist forms of thinking (that sought clarity, truths and

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[3] 'Material-discursive practices' is a term that acknowledges the dynamic interrelationships of understandings, meanings, language, material things and practices that can become so embedded as to be seen as common sense, sometimes difficult to look beyond.

stability) and towards a diverse range of 'post' approaches (postmodernism, poststructuralism, posthumanism to name a few). Such approaches work with the postmodern era of intense change characterised by social, economic, geopolitical and environmental uncertainty, risk and insecurity, together with widening inequalities (Prout, 2011). This broad ('new') wave encompasses diverse perspectives, including posthumanism and new materialism, that mark a move away from seeing childhood or play as a fixed identity category and towards looking at how both are continually produced through relational practices (Goodenough *et al.*, 2021; Kraftl and Horton, 2019; Kraftl *et al.*, 2019; Lenz Taguchi, 2014; Lester, 2020; Murris, 2016a, 2016b; Spyrou *et al.*, 2019; Taylor, 2011). Doing so foregrounds movement, the rhythms and flows of everyday life, difference and continual change. Relationality decentres 'the child' (Prout, 2007; Spyrou, 2017; Taylor and Pacini-Ketchabaw, 2015) and brings into focus the liveliness of material objects, attending to how human and material forms mutually shape and are shaped by each other (Lester, 2020; Mereweather, 2020; Murris, 2018; Rautio, 2013a, 2013b).

1.4.2 The universal child, difference, inequality and intersectionality

Here we review theorisations of power, inequality and different childhoods. Despite studies of multiple childhoods, the assumption of 'the child' remains, based historically on norms that are white, patriarchal, heteronormative, European/USA and middle class (Abebe, 2019; Burman, 2019; Butler *et al.*, 2019; Dowd, 2016; Dyer, 2017; Hanson *et al.*, 2018; Robinson and Jones Diaz, 2006; Shallwani, 2010; Smith, 2011; Thorne, 2007; VandenBroeck and Bouverne-De Bie, 2006).

Several contemporary approaches to researching multiple childhoods are introduced. One example is the concept of intersectionality (Cho *et al.*, 2013; Konstantoni and Emejulu, 2017; Konstantoni *et al.*, 2014), which can look beyond single identity categories to operate both as an analytical tool and as a challenge to interactions of power, subordination and privilege at the intersections of, for example, race, gender, class, disability and sexual orientation.

Moving beyond fixed single categories has led some to question the identity category of 'child' itself (Dahlbeck, 2012; Kraftl, 2020a), although, as with other sites of subordination and power, single categories can sometimes be useful politically (Alanen, 2016; James, 2010). The concept of childism has different meanings in different contexts, but has been taken up by a group of childhood scholars who use it to not only reveal and critique adultist power structures but also to enable children's experiences to change both scholarship and societies. The argument is that while 'isms' can be blunt tools, they can and do also provide powerful theoretical lenses for critical study and activism (Wall, 2022a, 2022b). Nonetheless, the forces that discriminate against children as a discrete category are relational and play out differently across intersections of difference.

1.4.3 Childhood, play and social policy

The rest of chapter 2 looks at the literature on social policy relating to children and play. There is a lot of detail in this part of chapter 2 not summarised here (although the Welsh policy focus and key changes in policies since the publication of *Play for a Change* are discussed above). Rather, here we summarise the topics covered in the chapter and then highlight some of the key points and narratives that build towards the concept of a relational capability approach to considering the relationship between children's play and wellbeing.

In reviewing the literature on children and social policy, we open with an overview, outlining contemporary policy narratives, popular concerns about children and historic understandings of play in children's policy. We then situate contemporary policy making within recent history and the current period of austerity following the financial crisis of 2008, with a focus on social investment as a policy formation. Following this is a brief introduction to the Welsh Government's approach to policy making since devolution, highlighting key principles and the rights-based approach to policy making for children and Welsh policies for play, including the Welsh Government's Play Sufficiency Duty. We then offer a review of the Welsh Government's Well-being of Future Generations (Wales) Act 2015, which is followed by a look at the literature on children's wellbeing and policy. T he chapter then revisits some of the contemporary concerns about children introduced earlier to consider policy responses to them and finishes with a brief comment on the relationship between play and wellbeing, introducing the proposal for a relational capability approach.

Contemporary concerns about children, evident in media, policy and everyday narratives, include:

- safety, online and in the public realm, from traffic, other people and increasingly from pollution (Barclay and Tawil, 2021; Bessell, 2017; Giles *et al*., 2019; Shaw *et al*., 2015; UNICEF, 2022);

- increasing use of digital devices and online activities, including screen time, concerns about addiction and online safety (Blum-Ross and Livingstone, 2016; Colvert, 2021; Family Kids and Youth, 2021; Gottschalk, 2019; Livingstone *et al*., 2017; Royal College of Paediatrics and Child Health, 2019);

- trends in poor mental health, although studies are inconsistent or even contradictory in what they measure, what they find and the causes of any trends (Collishaw *et al*., 2015; Cowie and Myers, 2020; Ford *et al*., 2021; Kvist Lindholm and Wickström, 2020; Langley *et al*., 2017; Page *et al*., 2021; Patalay and Fitzsimmons, 2020; Pitchforth *et al*., 2019; UNICEF, 2021);

- low levels of physical activity and increase in obesity, although the reductive narrative of this being exclusively a personal matter of balancing calorific intake and output has been challenged (Alexander *et al*., 2014, 2019; Clark and Dumas, 2020; Janssen *et al*., 2016; Lee and Blumberg, 2019; Love *et al*., 2019; Medvedyuk *et al*., 2018; National Assembly for Wales, 2019; NHS Digital, 2021; O'Hara and Taylor, 2018; Public Health Wales, 2021; Ralston *et al*., 2018; Suchert *et al*., 2015; Tan *et al*., 2020; Tomkinson *et al*., 2017);

- youth crime and youth violence (Bryan, 2020; Crenshaw *et al*., 2014; Densley *et al*., 2020; Dowd, 2016; Harding, 2020; Katz, 2019; Maxwell *et al*., 2019; Wales Violence Prevention Unit, 2020; Windle *et al*., 2020; Youth Justice Board, 2021).

Much of the research shows significant classed, racialised, gendered and dis/ablised disparities in how these concerns are experienced by children and families (Bryan, 2020; Crenshaw *et al*., 2014; Davies, 2019; Densley *et al*., 2020; Dowd, 2016; Katz, 2019; Lee and Blumberg, 2019; NHS Digital, 2021; Patalay and Fitzsimmons, 2020; Shortt and Ross, 2021; The Food Foundation, 2021; Witten and Carroll, 2016; Witten *et al*., 2015), highlighting the interrelatedness of personal, social and environmental conditions that affect children's capability to do and be well. In addition, these disparities also play out in particular ways in social policy responses to these and other concerns (Asenova, 2015; Edwards and Gillies, 2020; Edwards *et al*., 2015; Edwards *et al*., 2022; Gillies *et al*., 2017; Lambert, 2019; Richardson *et al*., 2014; Ryan, 2021).

Policies relating to children largely fall within a social investment model, that is, resources are invested in children as future producing and consuming citizens. The social investment model can be seen in universal provision such as education and in targeted provision that identifies particular children as either in need of protection (children *at* risk) or control (children *as* risk) (Archer and Albin-Clark, 2022; Bonoli *et al*., 2017; Burman, 2019; Read, 2011; Ryan, 2020; Vignoles and Thomson, 2019); such approaches can often further entrench inequalities (Edwards *et al*., 2022; Katz, 2019). Even though the Welsh Government explicitly brings a rights-based approach to policies relating to children (Butler and Drakeford, 2013; Sullivan and Jones, 2013), the social investment narrative is still evident (Knibbs *et al*., 2013; Wales Centre for Public Policy, 2020; also evident in the Well-being of Future Generations [Wales] Act 2015).

In addition, since the 1980s, neoliberal[4] governments have progressively introduced the language and practices of the market into public policy and public services, with a focus on measuring outcomes in ways that seek to evidence the problematic causal relationship between input, output and outcome (Bovaird, 2014; Edwards *et al*., 2022). Neoliberalism, the social investment model and the austerity measures of the 2010s have combined to increasingly 'responsibilise' citizens, encouraging individuals to be less dependent on the state and to make good choices regarding their own health, safety and wellbeing (Juhila *et al*., 2017) and that of their children (Edwards and Gillies, 2020; Edwards *et al*., 2022; Katz, 2019). Such responsibilisation can also, albeit inadvertently, produce notions of blame, particularly of poor mothers (in all senses of the word) (Asenova, 2015; Edwards *et al*., 2015, 2020; Gillies *et al*., 2017; Richardson *et al*., 2014; Ryan, 2021; Lambert, 2019).

It is easy to see, within this frame, that something as seemingly frivolous and irrational as children's play might be side-lined or constrained in policy unless it can be enlisted within the overall project of preventing social problems and producing future citizens (Lester and Russell, 2013a). Current concerns that relate to children's play include interrelated issues of fears for children's safety, children's digital lives, children's mental health, physical activity and obesity, and youth crime and violence. Much of Welsh Government policy acknowledges both the instrumental value of play and its intrinsic value as a right, for example in education policies such as the Foundation Phase and the Curriculum for Wales, and also in the Play Sufficiency Duty.

1.4.4 Children's play as a matter of spatial justice

Children's play is inherently spatial in that it always happens some*where*. The concept of spatial justice, used in four research studies into the enactment of the Play Sufficiency Duty (Lester and Russell, 2013a, 2014a; Russell *et al*., 2019, 2020), opens up ways of looking at how spaces are produced through the interrelationships between design of the built environment, legal and governance systems that give precedence to keeping the economy moving, and the ways these are entangled with political and social norms and everyday spatial practices (Lester, 2020; Pyyry and Tani, 2019; Soja, 2010). It also allows for a shift from a 'damage' (Russell and Stenning, 2022; Tuck, 2009, 2010) narrative (focusing on concerns for children's physical and mental health and wellbeing) towards recognition that when conditions are right, play emerges as children's own ways of doing and being well, offering a much more affirmative account.

Children's playful use of public space often reconfigures it (for example, playing at not walking on the cracks in the pavement, balancing on a low wall, playing kerby, skateboarding tricks, parkour, or just hanging out), creating temporary play spaces that deterritorialise the intentions of designers. Whether children can negotiate such time-spaces for play is dependent on unequal power relations and increasing inequalities at many scales.

The concept of spatial justice has been recognised in the Welsh Government's Ministerial Review of Play (Ministerial Review of Play Steering Group, 2023), and by the Future Generations Commissioner, who has urged Public Service Boards to recognise how the production of space contributes to injustices when drawing up their wellbeing plans (Future Generations Commissioner, 2017; Jones *et al*., 2020). Working towards spatial justice

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[4] Neoliberalism refers to political and economic ideologies and practices that see human wellbeing as arising from 'individual entrepreneurial freedoms' (Harvey, 2007, p. 2) and the accumulation of wealth. It has emerged from policies in the 1970s onwards that have seen a withdrawal of the state from a traditional social welfare role, the increasing incursion of the markets and associated managerial ideologies into public services and the deregulation of finance and other systems seen as restricting market forces.

requires more than addressing current social injustices in specific locations, it means making sense of how transcalar spaces are produced and reproduced through the entanglements of materiality and design, governance and ideology, spatial practices, histories and more (Jones *et al.*, 2020; Lester, 2020). The Welsh Government's Play Sufficiency Duty offers opportunities for both in relational ways. Hyperlocal research with children that can bring to light specific issues in specific neighbourhoods works together with the requirement for cross-professional working, linking the duty to a range of non-play-specific policies (Russell *et al.*, 2019, 2020).

1.4.5 Children's wellbeing and policy

Given the interrelatedness of wellbeing and spatial justice embedded in the Well-being of Future Generations (Wales) Act 2015, it is worth looking more at how wellbeing is framed within public policies relating to children. Despite a significant body of work on the determinants and indicators of wellbeing for children, there is a lack of both consensus and debate on what it is that constitutes children's wellbeing (Raghavan and Alexandrova, 2015). Nevertheless, it is possible to identify a dominant understanding that categorises components and/or determinants of wellbeing, that sees it as something that an individual can acquire or achieve, and that has a focus on concepts such as happiness and resilience (Atkinson, 2013; Lester, 2020). There is a significant body of literature discussing what and how to measure children's wellbeing, spanning objective and subjective measures and children's own views (Ben-Arieh and Frønes, 2011; Ben-Arieh *et al.*, 2014; Bradshaw, 2019; Bradshaw *et al.*, 2012; Camfield *et al.*, 2010; Cho and Yu, 2020; González-Carrasco *et al.*, 2019; Kosher and Ben-Arieh, 2017; Rees *et al.*, 2020). There are also critiques of both the concept (Andrews and Duff, 2020; Atkinson, 2021; Fattore *et al.*, 2021; Laruffa, 2018; Walby, 2012) and ways of measuring it, including the observation that the identification of indicators and domains for measuring children's wellbeing – deciding what matters and what counts – is (often uncritically) based on cultural, adult and class-based assumptions as to what constitutes a good childhood (Atkinson, 2013; Bourdillon, 2014; Camfield *et al.*, 2010; Fattore *et al.*, 2021).

A key critique of the concept of wellbeing and the ways that it is used in research and policy is that it is individualistic, that is, wellbeing is constructed as something that an individual possesses and as something that can – and should – be acquired or achieved (Atkinson, 2013; Coffey, 2020; Fattore *et al.*, 2021; Lester, 2020), thereby rendering individuals responsible for their own wellbeing (White, 2017). A second and related critique is that this individualisation, together with a 'components' approach, can appear context-free, particularly with measures of subjective wellbeing that can act as a smokescreen for more structural issues of inequality (Atkinson, 2013, 2021; Bradshaw, 2019; Camfield *et al.*, 2010; Coffey, 2020; Fattore, 2020). Additionally, research into wellbeing often focuses on 'ill-being', fuelling concerns about children. On one level, this is understandable, because it highlights important issues that need to be addressed by policy makers. At the same time, it can create a sense of childhood in crisis (Adams, 2013; Kvist Lindholm and Wickström, 2020). Such a 'damage' focus locates problems within individuals, requiring professional interventions to fix those 'damaged', thereby obscuring structural forces of power and injustice (Tuck, 2009; Russell and Stenning, 2022). This is not to deny the very real harms and problems some children face, but it is important to be aware of what such narratives, whilst well-intentioned, can also perform (Kvist Lindholm and Wickström, 2020).

In addressing the problem of wellbeing as individualistic, a number of relational approaches to wellbeing have been suggested, including that wellbeing be recognised as something that arises through actions and encounters (rather than being possessed, acquired or achieved) (Fattore, 2020; Lester, 2020) and that wellbeing is therefore fundamentally spatial and relational (Atkinson, 2013, 2020; Fattore *et al.*, 2021; Lester, 2020).

1.4.6 Towards a relational capability approach to children's wellbeing

One approach to wellbeing that has been explored by a growing number of children's wellbeing researchers and practitioners is the capability approach, with examples drawing on the works of philosopher-economist Amartya Sen and philosopher Martha Nussbaum (Biggeri *et al*., 2011; Camfield and Tafere, 2011; Domínguez-Serrano *et al*., 2019; Kellock and Lawthom, 2011; Schweiger, 2016). The approach seeks to move beyond merely considering the importance of resources for people's wellbeing on the one hand (objectively measured accounts) and subjective accounts on the other (Owens *et al*., 2021). Capabilities are not only personal skills, aptitudes and personality traits but rather the combination of resources and opportunities (conditions) that exist and children being able to make the most of these resources and opportunities to be and do well (Biggeri *et al*., 2011; Camfield and Tafere, 2011; Domínguez-Serrano *et al*., 2019; Kellock and Lawthom, 2011; Murris, 2019; Nussbaum, 2007; Robeyns, 2017; Schweiger, 2016). Capabilities refer to the opportunities and freedoms for people to be able to do and be what is of value to them; part of this is the process of 'converting' resources in 'functionings' so that people can actually do and be what is of value to them. Conversion 'factors' operate across the personal, social and environmental in interrelated, interdependent and co-emergent ways. Capabilities, therefore, comprise both the sufficient resources and the capability to use those resources to do and be well (Robeyns, 2017).

Although there is debate about whether there can be a universal, predetermined list of human capabilities, Nussbaum suggests that such a list is necessary to enable a focus on justice. She lists ten core human capabilities:

- Life
- Bodily Health
- Bodily Integrity
- The Development and Expression of Senses, Imagination and Thought
- Emotional Health
- Practical Reason
- Affiliation (both personal and political)
- Relationships with Other Species and the World of Nature
- Play
- Control over One's Environment (both material and social).

Nussbaum describes the play capability as 'being able to laugh, to play, to enjoy recreational activities' (Nussbaum, 2007). From this, it could be argued that if playing is seen as one of the ten central human capabilities (for all ages), then a capability approach to wellbeing would need to pay attention to the conditions that support the resources, opportunities and freedoms to play. In this way, capabilities are useful because they address inequalities and ideas of justice (Schweiger, 2016), and the approach therefore offers much for considering spatial justice for children in terms of their capability to find time, space and permission to play and the benefits that brings both for enhancing life in the moment and longer-term wellbeing for children and communities.

However, as with many theories of wellbeing, the capability approach has been critiqued for being individualistic and embedded in minority world constructions of justice as fairness, freedom and choice (Fattore and Mason, 2017; Walby, 2012). Others have argued that the relational aspects of the theories have been overlooked, particularly in terms of the interrelatedness of personal (variously interpreted as an individual's embodied skills, limits, dispositions and/or resources), social (cultural, economic, political and social norms and resources) and environmental/structural (the physicality of the built environment, infrastructure, institutions, public goods, natural resources) factors and forces affecting the likelihood that resources can be converted into functionings (Owens *et al*., 2021).

We close chapter 2 therefore with a proposal for a relational capability approach to children's play that can account for the entanglements of the personal, social and environmental conditions that affect the extent to which children can convert resources for play into actually playing, and all that offers for both moments of being well and more long-term wellbeing. Such an approach offers a relational perspective on playing and being well, which we review in chapter 3.

1.5 The role of play in children's wellbeing (chapter 3)

After an opening commentary on playing and being well, chapter 3 gives an overview of the different approaches to studying play, including how play is defined (or not), various types of play and the diversity of players. It then looks at how different disciplines approach the study of play, the politics of different approaches to knowledge production and the methodologies and methods used in research. Following this, the chapter reviews:

- the relationship between play and evolution

- neuroscientific studies of play and wellbeing

- the relationship between play and children's wellbeing, through

    - playing with movement

    - playing with affect and emotions

    - the therapeutic role of play (including play during the COVID-19 pandemic)

    - playing with others

    - playing with things

    - play, place and wellbeing.

The chapter ends with a reflection on the role of playing and being well. Play and learning, together with play and creativity/innovation, two key themes prominent in the research literature, are not addressed separately as they are interwoven throughout (with 'learning' and 'development' being understood as change).

Chapter 3 offers a detailed review of wide-ranging research into children's play and wellbeing, spanning the whole spectrum of academic disciplines and methods. We do not summarise all these diverse studies here, rather we aim to give a general sense of how the research is consistent with a relational capability approach to considering playing and being well, and therefore how it relates to adult actions in support of children's play, re-emphasising that capabilities, play and wellbeing are not located *in* individual children's minds and bodies but emerge dynamically through and as encounters.

The chapter highlights how the capability to play affects all the other capabilities in Nussbaum's list. For this reason, protecting and promoting children's capability to play, particularly for children already facing social and spatial injustices, is both in line with children's rights (Lott, 2020) and the social investment model of policy described in chapter 2 (Nielsen, 2018). In other words, protecting and promoting children's capability to play makes sense in terms of both justice and economics. However, bringing rights and social investment to a capability approach raises the eternal tension of play's intrinsic and instrumental value: a capability approach sees people as ends in themselves rather than means to ends (Laruffa, 2018), and so the instrumentalisation of play for social and economic purposes would not be consonant with the principles of a capability approach. Nevertheless, if the focus is on paying attention to *creating the conditions* for play (the *capability* for children to play) for children to be and do well, rather than promoting or guiding specific forms of play for the social and economic benefits they are assumed to bring, it may be possible for both to co-exist in less of an oppositional manner.

Furthermore, a relational capability approach can challenge the enduring binary opposition of play's intrinsic and instrumental value through acknowledging that play may at times have extrinsic value for children themselves (Lopez Frías, 2020) and through appreciating playing as emergent and shifting in its identity (Rautio and Winston, 2015). In addition, the literature shows the bi-directionality of playing and its instrumental outcomes such as health and development (Lillard *et al*., 2013; Lockman and Tamis-LeMonda, 2021; Solis *et al*., 2017). In other words, children clearly develop social, physical, emotional and cognitive skills when they play. At the same time, various forms of playing require certain skills and the more developed these skills, the more complex the play. A relational approach also disturbs long-held and valued ideas of play being freely chosen and personally directed. Chapter 3 presents myriad approaches to the thorny problem of defining play, and many descriptions of play's characteristics include questions of personal choice and agency. Yet, from a relational perspective, play is not seen as residing in the minds and bodies of individual children, but as emerging and developing relationally, opportunistically and spontaneously from current conditions (Lester, 2020; Russell, 2015). Such a perspective also dissolves the play/not-play binary, as behaviour, motivation and disposition (playfulness) are not stable but fluid and ever-changing moment to moment (Lester, 2020).

1.5.1 Different players playing differently

Much of the literature makes generalisations both about children's experiences of playing (for example, that it is always voluntary or accompanied by positive affect) and about its benefits for children's wellbeing. 'Play' and 'children' easily become homogenised, normative concepts that erase the experiences and functions of play for children who do not fit the ideal child mould (Buchanan and Johnson, 2009; Cook, 2016, 2019; Doak, 2020; Göncü and Vadenboncoeur, 2015; Goodley and Runswick-Cole, 2010; Mayeza, 2018; Smith, 2017). Chapter 3 has a significant section reviewing the literature on specific categories of children, since those categorisations exist in the literature despite the intersectionality of children's everyday experiences and the diversity of experiences within and across such categories. Normative and/or stereotypical assumptions that can adversely affect children's capability to play operate across race, class, dis/ability, gender and heteronormativity. For example, the play styles and preferences of some neurodivergent children can be read as problematic and used as a diagnostic tool that then justifies therapeutic interventions (Barron *et al*., 2017; Goodley and Runswick-Cole, 2010; Murphy, 2021; Ray-Kaeser *et al*., 2017). Such interventions can be helpful if they strike the right balance between normalising/ changing neurodivergent children and supporting them to cope well with and enjoy their lives (Leadbitter *et al*., 2021). Another example is the literature on gender and play that generalises differences between boys' and girls' preferred toys and play styles in ways that perpetuate binary distinctions between both boy and girl as stable categories (Bragg *et al*., 2018; Callahan and Nicholas, 2019; Dinella and Weisgram, 2018; Keenan and Lil Miss Hot Mess, 2020; Osgood, 2014; Pawlowski *et al*., 2015; Prioletta, 2020; Tembo, 2021a) and between nature and culture (Blaise and Taylor, 2012; Josephidou and Bolshaw, 2020; Osgood, 2014; Prioletta, 2020). Such binaries obscure the detailed ways that children enact, reproduce and resist gender stereotypical and heteronormative roles in their play (Blaise and Taylor, 2012; Renold and Mellor, 2013). A third example is of how Black children can be criminalised in their play, with adults interpreting the play behaviours of White and Black children differently in ways that can be lethal (Dumas and Nelson, 2016; Pinckney *et al*., 2019) or which can over time position Black children as problems within schools (Bryan, 2020; Kinard *et al*., 2021; Meek and Evandra, 2020).

Such examples show the inseparability of historical and uneven power relations and colonialism with all the other phenomena that affect – and are affected by – how children play both in the moment and over time. It is easy to slip into generalisations about children's play, particularly as many quantitative studies employ a range of strategies for smoothing out differences to make generalisable statements about play. Such studies are useful, and at the same time, it is important to remember that differences are important too. A relational capability approach to thinking about children's play can both avoid the tendency to over-evangelise and over-romanticise children's play and take account of differences through the entanglements of personal, social and environmental conditions affecting children's capability to convert resources for playing into actual playing.

1.5.2 Relational perspectives on evolution and neuroscience

Given that play has evolved and can be observed in mammals, birds and some other animals (although to varying degrees), that young animals engage in playing despite obvious costs (energy expenditure, exposure to predators) and that juvenile mammals show a 'play rebound' after being deprived of play, it may be assumed that play serves some evolutionary purpose (Gray, 2019; LaFreniere, 2011, 2013; Sgro and Mychasiuk, 2020; Sharpe, 2019). 'Purpose' in evolutionary terms is understood mainly as play's contribution to both current and future fitness (adaptiveness to the current environment), as well as its benefits for both ontogeny (the development of individuals) and phylogeny (the evolution of species).

One critique of some evolutionary studies is their deterministic focus on genes as the sole source of inherited characteristics. A broader systems view acknowledges the relationality of genes, bodies and environments, including other inheritance systems such as epigenetic inheritance (where acquired behaviour patterns can be passed on), social learning, and symbolic systems such as language (Bateson, 2015, 2017; Bateson and Martin, 2013; Jablonka and Lamb, 2007, 2014; Panksepp, 2008). What these broader perspectives imply is that the classic nature/nurture dualism is dissolved, and that a systems approach to development (Bergen *et al.*, 2016; Fagen, 2011; Fromberg, 2015; Oyama, 2016) can offer up interesting perspectives on play's function and particularly its relationship to wellbeing.

Evolutionary studies emphasise that play is not a singular or homogeneous phenomenon and that different forms of play have had different evolutionary origins and pathways and serve different functions (Burghardt, 2015; Burghardt and Pellis, 2019; Smaldino *et al.*, 2019), meaning that no one theory is sufficient to account for play's and players' diversity (Burghardt and Pellis, 2019; Sutton-Smith, 2017). Broadly, however, most evolutionary theories posit that play's developmental function is to aid juveniles to adapt in various ways to their specific environments, and that such adaptiveness can affect evolutionary change through innovation and creativity (Bateson, 2015; Burghardt and Pellis, 2019; Pellegrini *et al.*, 2007). A summary of evolutionary purposes for play could include:

- practising skills

- developing the ability to cope physically and emotionally with unexpected events

- producing innovations that may or may not be useful

- building social connections for bonding and co-operation (Bateson and Martin, 2013; Gray, 2019; Panksepp, 2010, 2016; Panksepp and Panksepp, 2013; Panksepp *et al.*, 2012; Pellis and Pellis, 2017; Pellis *et al.*, 2018).

Neuroscience has become a powerful area of research offering not only explanations of the human mind but also technologies that treat – and control – brain and mind diseases and other problems (Altıkulaç *et al.*, 2019; Borsboom *et al.*, 2019; Münch *et al.*, 2021; Rose, 2012; Signorelli *et al.*, 2021). A key problem is explanatory reductionism, that is, a tendency encouraged by technologies in genetics and brain imaging from which some over-enthusiastic researchers, advocates and policy makers infer empirical truths for the real-world human condition (Altıkulaç *et al.*, 2019; Borsboom *et al.*, 2019; Rose, 2012; Tallis, 2016). For example, the compellingly simple images of brain activity belie a host of data processing stages including statistical analysis and smoothing of datasets to eliminate 'noise' (the many other activities that are captured by the imaging process) and 'spatial normalisation' of the final images onto a template brain image to allow for comparison (Dufford *et al.*, 2022; Dumit, 2012; Glover, 2011). In addition, much of the neuroscientific research into play has been on animals and on rough and tumble play (Kellman and Radwan, 2022; Sgro and Mychasiuk, 2020). However, these are not reasons to dismiss neuroscience and what it can offer an understanding of play. Rather, it is a matter of exercising caution and resisting over-simplistic causal explanations for complex entangled processes.

A common view is that the brain is where thinking (or cognition) happens (Corris and Chemero, 2022), and that it is an information processor, with neurons receiving sensory and cognitive (bottom-up and top-down) inputs releasing either an excitatory or inhibitory neurotransmitter to send on messages for action or inhibition of action (Bergen *et al*, 2016; Corris and Chemero, 2022; Estrin and Bhavnani, 2020; Koziol *et al*., 2012; Signorelli and Meling, 2021; Steffen *et al*., 2022). Computer metaphors abound, for example, wiring (including hard wiring), neural circuits, programming, coding and algorithms (Burke *et al*., 2020; Krakauer *et al*., 2017; Redish *et al*., 2019; Rose, 2012; Signorelli and Meling, 2021), with minds as the software (Protevi, 2012). Those involved in the development of 'affective neuroscience' argue that the focus on cognitive (computational) and behavioural aspects of the brain largely ignore sub-cortical affective processes. A growing number of studies show how affective processes, in relation with nurturing environments, are crucial for effective cognition, aligning with a relational capability approach (Panksepp, 2010, 2012, 2016; Panksepp *et al*., 2019). Other critics argue that life (consciousness, subjectivity, behaviour, movement, emotions) cannot be reduced to electrochemical neural communication (Signorelli and Meling, 2021). Alternative models suggest more relational perspectives and include network models (Borsboom *et al*., 2019), biological modelling based on life processes (Signorelli and Meling, 2021), and dynamical systems theory and embodied cognition, which sees the brain as one player in brain-body-environment systems (Corris and Chemero, 2022).

In summary, neuroscientific research into play suggests that play is a 'bottom-up' neural process or system (Panksepp, 2010, 2012, 2016; Panksepp *et al*., 2019; Pellis *et al*., 2019). The motivation for play originates in the reward systems (a commonly used but contested term for the subcortical positive affect networks that include sensory and motor networks). This connects with and activates cortical[5] areas and processes, supporting adaptation to complex physical, social and cultural environments (Kellman and Radwan, 2022; Panksepp, 2016; Siviy, 2016). Adaptations include social sensitivity, empathy and affiliation; executive functioning (including attention, planning and decision-making; emotion regulation; impulse control) and stress response systems supporting the ability to cope with novel situations. The release of neurochemicals including opioids when playing is what gives rise to the pleasure that generally accompanies it, providing more motivation to play. Given this, play and its associated neurochemical processes are thought to provide resilience against depression (Panksepp, 2008, 2010, 2015; Sgro and Mychasiuk, 2020) and against stress (Burgdorf *et al*., 2017; Sharpe, 2019), positioning it as central to children's wellbeing in terms of the pleasure it offers. As an extension of this, playing is thought to have the potential to reduce symptoms of ADHD (Panksepp, 2007, 2008, 2017; Siviy and Panksepp, 2011). For these reasons, a neuroscientific argument has been made that adults should create conditions for children to play (Panksepp, 2015).

Neuroscientific research into children's play foregrounds the importance of both movement and affect/emotion. These are reviewed in the two following sections of the chapter, acknowledging that they do not operate in isolation from each other.

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[5] The cerebral cortex is the outermost layer of the brain that is associated with higher mental capabilities and processes (for example, decision-making), with lobes having specialised areas including sensory processing, language and voluntary movement. The sub-cortex is the older (in evolutionary terms) area of the brain associated with more immediate responses to environmental stimuli.

1.5.3 Playing with movement and the senses

There is surprisingly little attention paid to movement within play research (Eberle, 2014; Pellegrini, 2011) other than its role in physical activity and obesity reduction. Here, benefits can include:

- muscular strength, aerobic fitness (Martins *et al*., 2015)

- increased agility, range of motion, flexibility, co-ordination and balance, and decreased fatigue, stress and depression (Yogman *et al*., 2018)

- lower blood pressure in children with hypertension (especially for aerobic activity), improvements in levels of cholesterol and blood lipids and in metabolic syndrome and bone mineral density (Janssen and LeBlanc, 2010).

In addition, movement helps increase blood flow and oxygen intake, and activates the lymphatic system, protecting against illnesses and allergies (Hanscom, 2016). Other benefits can include:

- protection from conditions such as cardiovascular disease, diabetes, cancer, osteoporosis, hypertension, depression and obesity (Block *et al*., 2017; Boddy *et al*., 2014; de Rossi, 2020)

- improved mental health (Ahn *et al*., 2011)

- improved self-esteem and cognitive functioning (Biddle *et al*., 2019)

all demonstrating clear connections with children's wellbeing. The joy, intrinsic motivation, sense of control and opportunity to experiment that is offered by physically active forms of play can promote physical literacy, developing motor skills, agility and competence as well as the motivation to continue with physical activity later in life (de Rossi, 2020). Despite the broad range of physical, cognitive, social and emotional benefits, it is fair to say that the dominant benefit of 'active play' is assumed to be for physical health, both through energy expenditure and physical fitness (Alexander *et al*., 2014, 2019).

Beyond the focus on 'active play', understanding play as a relational process inevitably requires thinking about movement, both in terms of physical movement and the process of change (Eberle, 2014; Lester, 2020). Bodies are experienced and lived, and orientation to the world is in terms of what the world offers for action, what it affords. From this perspective, cognition and perception are not only brain functions but rather something that humans do, mostly through movement (Corris and Chemero, 2022; Sheets-Johnstone, 2018). It is almost a truism to say that through play children *make sense* of their world and of themselves, their capacities and potential (Atmakur-Javdekar, 2016; Brown *et al*., 2019; Hakkarainen and Bredikyte, 2008; Henricks, 2014, 2015). Generally, however, this is interpreted as meaning-making rather than sense-making. 'Making sense' can be seen less as a purely cognitive abstract process and more as a feeling (Olson, 2022), highlighting the interdependency of movement and the senses and providing broader connections between playing, movement, the senses, affect and children's wellbeing.

Playing can help children to process, integrate and regulate sensory information (Bundy *et al*., 2007; Fearn, 2014; Hanscom, 2016; Prendiville and Fearn, 2017; Roberts *et al*., 2018). Equally, sensory integration[6] as a process influences the development of play (Watts *et al*., 2014), with children's sensory processing preferences affecting their play preferences, although not in uniform ways (Binder, 2021; Bundy *et al*., 2007; Mische Lawson and Dunn, 2008; Roberts *et al*., 2018; Watts *et al*., 2014). Neurodivergent children are more likely to have sensory processing

[6] The integration of actions with environmental information received through the senses.

differences from neurotypical children (often described as problems) (Dellapiazza *et al*., 2021; Jorquera-Cabrera *et al*., 2017; Pfeiffer *et al*., 2014), and may play in ways that may be perceived as disruptive, attracting censure in some contexts (Binder, 2021; Conn, 2015).

Although all senses are important, of particular interest to the interrelationship between playing, the senses and movement are the senses of touch, proprioception and kinaesthesia.[7] Kinaesthesia and touch are the earliest sensory systems to develop, developing prenatally (Fearn and Troccoli, 2017; Hanscom, 2016; Jackson and McGlone, 2020; Sheets-Johnstone, 2020). Many forms of play involve touch between human bodies, for example, rough and tumble play, tickling, games of tag (Jackson and McGlone, 2020; Panksepp, 2010) and pretend play (Roberts *et al*., 2018). The neurochemical rewards of such play, felt as joy, motivate children to seek out such contact again, in the process developing attachments, a range of social skills and affective neural networks that can help against depression (Jackson and McGlone, 2020; Panksepp, 2010). Touch (through the whole body, not just the hands) is central to play in that even if children are not touching each other, they will be in touch with surfaces and objects, moving across them or manipulating them, as well as other experiences such as pressure, temperature, vibration, pleasure or pain (Hanscom, 2016), which in turn are all connected to movement (Bundy *et al*., 2008; Gibson *et al*., 2017; Prendiville and Fearn, 2017).

Proprioception is necessary for and developed through movements typical in playing, for example, swinging, balancing, skipping, tree climbing, rolling down hills, spinning round, hanging upside down, as well as pushing and pulling things, dragging materials around, using different sides of the body, knowing how hard to hug or tag when playing, or engaging in rough and tumble play (Fagen, 2011; Goddard Blythe, 2017; Hanscom, 2016). Such forms of play are affected by and affect the vestibular system,[8] which plays a key role in motor co-ordination, balance, gaze stabilisation during head movements, postural stability, heart rhythm and blood pressure, spatial orientation and an awareness of one's movements, attention, memory, concentration, as well as cognition and emotion regulation (Brodie, 2021; Hanscom, 2016; van Hecke *et al*., 2021). Moreover, stimulation of the vestibular system, as with touch, engenders positive affect (Miller *et al*., 2017; Rajagopalan *et al*., 2017), evident in the squeals and screams of children engaging in such disequilibrial forms of play (Eberle, 2014; Work-Slivka, 2017).

1.5.4 Playing with affect/emotion

Rational thought and action are not possible without the sensory information from movement, feelings and emotions (Damasio, 2018, 2021; Marks-Tarlow, 2010; Panksepp, 2010). The relationship between bodily feelings, emotions, affect, thought and action/movement is not one of opposition and duality but of indivisibility. Play itself can be understood as an 'affective/motivational system' (LaFreniere, 2013, p. 192).

Affect, emotions and feelings are terms that are often used interchangeably and sometimes distinguished and defined in different ways across disciplines (Burghardt, 2019; Damasio, 2018; Russ, 2014; Stanley, 2017; Tembo, 2021b). 'Affect' is sometimes used as an umbrella term for emotions and feelings (Burghardt, 2019; Damasio, 2018; Russ, 2014). A more relational understanding sees affect as emerging from encounters rather than something inside individuals, and includes the reciprocal ability both to affect and be affected by the world (Harker, 2005; Johansson and Hultgren, 2016; Lester, 2020; Leyshon, 2016; McPhail and Huynh, 2016; Stanley, 2017). All three – affect, feelings and emotions – aim for homeostasis, the self-regulatory process that maintains

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[7] For the purposes of this review, we use the following understandings. Proprioception is the sense of knowing where parts of the body are in space without having to look at them and includes the sense of balance (Brodie, 2021; Hanscom, 2016). Kinaesthesia is the awareness of the movement of one's body (Sheets-Johnstone, 2011, 2018, 2020).

[8] The vestibular organs are found in the inner ear and work together with the vision, auditory and somatosensory systems and with graviceptors to feed sensory information to the brainstem, cerebellum and cortex.

a 'steady state' for organisms in the face of internal or external fluctuations and changes and ensures their survival. However, homeostasis is more than merely being steady and stable, it is a dynamic process of seeking opportunities to flourish (Billman, 2020; Damasio, 2018; Nirmalan and Nirmalan, 2020; Rose, 2012).

It is often asserted that play generates positive affect, or that positive affect is a key characteristic of play (Ahloy-Dallaire et al., 2018; Bateson, 2015; Burghardt, 2011; Eberle, 2014; Held and Spinka, 2011; Johnson and Dong, 2019; Siviy, 2016; Sutton-Smith, 2017; Whitebread, 2018), although there are also critiques of adults' unproblematic association between play and joy (Cook, 2019). Children themselves often associate playing with positive emotions (Brockman et al., 2011; Goodhall and Atkinson, 2019; Howard et al., 2017; Moore and Lynch, 2018). From this perspective, play is rewarding, and children will seek it out to experience that reward, to experience a state of flourishing, a greater satisfaction in being alive – in other words, moments of being well (Lester, 2020; Sutton-Smith, 2017).

At the risk of over-simplifying a complex area of research on the relationship between playing, affect, emotions and wellbeing, much of which is from neuroscience, these can be summarised as:

- The pleasure and joy of playing can reduce anxiety, build resilience to depression and have other health benefits (Burgdorf et al., 2017; Panksepp, 2008, 2010; Trezza et al., 2019); can broaden social interactions and build more lasting bonds and attachments (Tugade et al., 2021); and can motivate further playing (Lester and Russell, 2010; Sutton-Smith, 2017).

- Children actively seek out ways to experience primary emotions such as fear, disgust, shock, anger in relatively safe ways, bringing a vitality to life for the time of playing and also bringing more long-term benefits of positive affect described above (Panksepp, 2008; Sutton-Smith, 2017).

- Play both requires emotion regulation[9] and affords a relatively safe frame for experiencing and practising the regulation of emotions (Colle and del Giudice, 2011; Foley, 2017; Gilpin et al., 2015; Granic et al., 2014; Hoffman and Russ, 2012; La Freniere, 2011, 2013; Lindsey and Colwell, 2013; Nielsen and Hanghøj, 2019; Palagi, 2018; Pellis et al., 2014; Pellis and Pellis, 2017; Rao and Gibson, 2019; Sandseter et al., 2022; Slot et al., 2017; Thibodeau-Mielsen and Gilpin, 2020; Vanderschuren and Trezza, 2014), with variations across gender and children with high or low impulsivity and/or anxiety (Rao and Gibson, 2019).

- Many forms of play involve the creation of uncertainty, either through anticipation of surprise or through engineering a temporary loss of control. Such forms of play can provide a relatively safe context for priming neural networks to respond flexibly and creatively to novel situations without over-reacting, learning how to deal emotionally with being surprised or temporarily out of control (Andersen et al., 2022; Gray, 2019; Kellman and Radwan, 2022; Pellis et al., 2014; Pellis et al., 2018; Sgro and Mychasiuk, 2020; Siviy, 2016; Vandervert, 2017), as long as the surprise falls within acceptable limits of being neither too predictable nor too chaotic (Andersen et al., 2022).

- Children also deliberately seek out fear and risk in their play, again within manageable extremes (Dodd and Lester, 2021; Sandseter, 2009, 2010). Such forms of playing can engender feelings of exhilaration, bringing benefits of positive affect (Hinchion et al., 2021; Hyndman and Telford, 2015; Lester and Russell, 2014b; Sando et al., 2021; Sandseter, 2009, 2010); and can prime neurological systems to cope with uncertainty and novelty (Gray, 2020; Lester and Russell, 2014b; Sandseter, 2010; Sandseter and Kennair, 2011).

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[9] It is important to note that emotion regulation is not the same as controlling emotions (although this may be one strategy of emotion regulation), but is more closely linked to homeostasis.

1.5.5 The therapeutic role of play

It is well documented that long-term toxic stress[10] can be harmful for children (Foley, 2017; Garner *et al.*, 2021). Equally, play has long been understood as a coping or healing activity, helping children to deal with difficulties, hardships and stresses they encounter. Whilst a range of adult professionals, including play therapists, occupational therapists, hospital specialists, playworkers and more, can support children through play, children also use play themselves in this way (Bateman *et al.*, 2013; Clark, 2018).

The therapeutic benefits of play include:

- facilitating communication (including expressing material that cannot be put into words);

- fostering emotional wellness (including catharsis, abreaction, positive emotions, counterconditioning of fears, stress inoculation and stress management);

- enhancing social relationships (including social skills, attachments and empathy);

- increasing personal strengths (for example, resilience and self-regulation) (Drewes and Schaeffer, 2014).

Play can provide children with a 'once-removed' and relatively safe frame for exploring feelings and possible adaptive coping mechanisms, including expressing fears, finding ways to protect themselves from such threats, and defeating or mocking them (Clark, 2018; McKinty and Hazleton, 2022). Examples of this were seen during the COVID-19 pandemic, including some children incorporating the virus into their play narratives (Casey and McKendrick, 2022; Cowan *et al.*, 2021; Graber *et al.*, 2021; Kourti, 2021; Mukherjee, 2021; Russell and Stenning, 2021, 2022). For hospitalised children, the capability to engage in self-organised play can help give them some sense of control over events, help create a sense of continuity with everyday life, and reduce anxiety, fear, stress and even pain, helping them and their families to have a more positive experience of being in hospital (Gulyurtlu *et al.*, 2020; Koukourikos *et al.*, 2015; Nijhof *et al.*, 2018).

1.5.6 Playing with others

Here, the focus is on the relationship between play and attachment to caregivers and to peers and the importance of friendships for wellbeing. Attachment can be seen as an adaptive system across a range of family, peer and romantic relationships and social networks that contributes both directly to resilience and also to the development and support of other protective adaptive systems, such as self-regulation, that are built through close relationships with others (Masten, 2014). Early infant attachment to caregivers is strongly linked to wellbeing through infancy, childhood, adolescence and later in life (Gorrese, 2016; Gorrese and Ruggieri, 2012; Jackson and McGlone, 2020; Masten, 2014; McGinley and Evans, 2020; Panksepp, 2010). Playing helps to build these attachments, initially through adults creating safe rituals for many forms of play, including tickling and games such as peek-a-boo (Bergen *et al.*, 2016; Gordon, 2015; Jackson and McGlone, 2020). Early caregiver-infant playing both requires and builds the affective attunement needed for later forms of social play with peers including rough and tumble, games, jokes and rituals, helping to build peer attachments (Gordon, 2015). A relational approach acknowledges attachment as a system that is contingent upon effective caregiver systems and broader socio-political contexts (Carlyle *et al.*, 2020; Duschinsky *et al.*, 2015).

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[10] The current understanding of 'toxic stress' from the American Academy of Pediatrics is that it 'refers to a wide array of biological changes that occur at the molecular, cellular, and behavioral levels when there is prolonged or significant adversity in the absence of mitigating social-emotional buffers. Whether those adversity-induced changes are considered adaptive and health-promoting or maladaptive and "toxic" depends on the context' (Garner *et al.*, 2021, p. 2).

For older children, although attachment to caregivers remains important, friendships offer different experiences, particularly through playing (Balluerka *et al.*, 2016; Gorrese, 2016; McGinley and Evans, 2020). As typically developing children grow, they build more enduring friendships with peers (Fattore and Mason, 2017; Holder and Coleman, 2015). Play is one of the social exchanges that both defines friendships (Bagwell and Schmidt, 2013; Brogaard-Clausen and Robson, 2019) and provides the context for friendships to be formed and maintained (Beazidou and Botsoglou, 2016; Carter and Nutbrown, 2016). Children who have strong friendships can cope better with stress and have higher sense of self-worth and emotional security, whereas those who feel excluded and rejected can experience loneliness and depression (Brogaard-Clausen and Robson, 2019; Fattore and Mason, 2017; Holder and Coleman, 2015). Tensions can arise in children's friendships between the complementary motivations for both social integration and social competition, since social integration can involve competition for friends, allies, reputation and status (Del Giudice, 2015). In the choreography for group acceptance or status, children use direct competition, aggression, teasing, excluding, bullying and gossiping in gendered ways (LaFreniere, 2011; Madrid, 2013). The ambiguities of playing, in terms of its real-but-not-real status, allow for the enaction of exclusions within the game in ways that can play differently out across social differences in complex ways (McDonnell, 2019; Trammell, 2020, 2023).

Children's own play cultures are sites for sharing, participating in and producing traditional games, rituals, jokes and narratives that are continually updated to be in line with contemporary cultural contexts including children's online lives (Breathnach *et al.*, 2018; Corsaro, 2020; Johanson, 2010; Karoff and Jessen, 2008; Marsh and Bishop, 2013; Potter and Cowan, 2020). Although research into these play forms often foregrounds children's ingenuity, nonsense and more taboo forms of playing (Koch, 2018; Lester, 2020; Marsh and Bishop, 2013; Rosen, 2015a, 2015b; Sutton-Smith, 2017), there are also clear links to children's wellbeing (Corsaro, 2020; Marsh and Bishop, 2013). Participation in play cultures is a form of communal sharing (Corsaro, 2020), which brings an emotional buzz through a sense of belonging (Marsh and Bishop, 2013). Some of this sense of cultural belonging emanates from the challenges to adult power and authority, which also offers children a sense of control and a collective identity (Corsaro, 2020). However, children's play cultures do not operate in isolation from adult cultures, rather they can be understood as a counterculture that exists alongside and in opposition to adults' conventions and rules. Those who are successful at this relationship between children's and adult cultures find the right balance between their resistant actions and compliance when it matters (Corsaro, 2020; Koch, 2018).

Children can also develop attachments to non-human animals, particularly (but not only) family pets. When asked about their lives, children frequently talk about their relationships with animals, including domesticated pets, wildlife or livestock (Moore and Lynch, 2018; Tipper, 2011), although children's attraction to animals is not universal (Irvine and Cilia, 2017; Tipper, 2011). Much of the psychological and developmental research on children and animals tends to focus on the benefits of pets for children's wellbeing, children's cruelty to animals and potential links with later adult abusive behaviour, or children's connections to nature (Tipper, 2011). In addition, many of these studies have focused on dogs and cats as pets. Beyond this, posthuman studies have considered children's everyday encounters with other species in ways that critique nature-culture binaries and challenge human exceptionalism (Rautio, 2013b).

1.5.7 Playing with things

Generally, the 'stuff' of playing is rarely mentioned in studies that focus on children's play and wellbeing. Beyond research on infants' object play (Herzberg *et al*., 2021; Lifter *et al*., 2022; Lockman and Tamis-LeMonda, 2021; Orr, 2020; Pellegrini, 2019; Riede *et al*., 2018; Solis *et al*., 2017), there are some studies on block or construction play (Gold *et al*., 2021; Ness and Farenga, 2016; Tian *et al*., 2020), a small body of work considering the role of therapeutic toys in play therapy (Kottman, 2011; Parker *et al*., 2021; Ray *et al*., 2013) and a growing literature on the benefits of playing with loose parts[11] (Ardelean *et al*., 2021; Brown, 2018; Bullough *et al*., 2018; Bundy *et al*., 2017; Engelen *et al*., 2018; Farmer *et al*., 2017; Gibson *et al*., 2017; Hyndman *et al*., 2014; Lee *et al*., 2020; Lester *et al*., 2011; Luchs and Fikus, 2013; Patte *et al*., 2018; Poulsen, 2022; Taylor *et al*., 2014; Verberne *et al*., 2014). These studies mostly, but not exclusively, construct children's relationships with material objects as interaction, viewing the objects themselves as inert and passive in the process of playing, with a focus on what changes for children. Social and cultural geography studies pay more attention to the materiality of play, but mostly consider *how* (rather than *why*) children play with toys and other objects, including looking at toys as the material culture of childhood intersecting with market forces and adult imaginaries.

However, some of these studies do mark a turn to forms of relational materialism that can trouble the binary of play's intrinsic and instrumental value (Woodyer, 2008) and of the real and imaginary (Wohlwend, 2020) through paying attention to how play emerges from encounters with the material, the immaterial (including the senses) and the symbolic, and through reimagining development and wellbeing as co-produced (Rautio and Winston, 2015). Such studies consider the liveliness of material objects and their part in how playing unfolds (Thiel, 2015). Within this position, all matter (living and non-living) is an equal player in the entanglements that produce unstable moments of playing, with agency being distributed across networks of relations rather than being possessed by individual children or adults.

Given that anything can be used as a toy and given that how an object is used defines its 'toyness', some objects may be toys at some moments and under some conditions but not others. The label of 'toy' therefore does not necessarily and always attach to specific objects; rather toys could be understood as 'moments *in time*' (Levinovitz, 2017, p. 271). What objects have to offer for playing arises in-between the object and the players and everything else that produces each moment.

From a therapeutic perspective, toys and other objects can support children to play out and feel some level of control over events, helping them to process and heal from trauma (Parker *et al*., 2021). Children often develop strong attachments to toys and other objects that help them to reduce separation anxiety from caregivers and ease distress when undergoing medical procedures (Lee and Hood, 2021).

Children's consumption of commercial toys (both digital and non-digital) is deeply embedded in their social lives and friendships and therefore wellbeing (Buckingham, 2011; Mertala *et al*., 2016; Wilson, 2016). Possessing

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[11] The term 'loose parts' refers to indeterminate, non-prescriptive, natural, recycled or waste materials that children can play with in any manner of ways.

certain consumer items allows children, particularly those from poorer backgrounds and disrupted family lives, to belong and to be heard amongst peers (Wilson, 2016). Toys can also be sites of cultural and social participation (Wohlwend, 2020), and being able to take pocket toys into school can sometimes help at playtimes, either as a comfort and something to play with if children are unable to gain access to games, or as an attraction (Carter and Nutbrown, 2016).

Evidence of how the materiality of what is available for play affects children's wellbeing comes from the growing studies into loose parts, particularly their introduction in school playtimes. This includes an increase in physical activity (Bundy *et al*., 2017; Engelen *et al*., 2018; Farmer *et al*., 2017; Gibson *et al*., 2017; Hyndman *et al*., 2014; Lee *et al*., 2020; Taylor *et al*., 2014), engagement in more complex play forms (Bundy, 2009; Luchs and Fikus, 2013; Lester *et al*., 2011; Verberne *et al*., 2014), more creativity, engagement and enjoyment of playtimes (Bundy *et al*., 2008; James, 2012; Lester *et al*., 2011; McLachlan, 2014; Sterman *et al*., 2020), and more diverse groups of children playing together (Armitage, 2009; Farmer *et al*., 2017; James, 2012; Tawil, 2017).

1.5.8 Play, place and wellbeing

Here, we consider how children's play is productive of spaces that support wellbeing. Continuing a relational perspective, space is understood as continually under construction, always in the process of being produced through entanglements of spatial practices, material and symbolic objects (present and absent, local and global), affects, desires, power relations and so on (Holloway *et al*., 2019; Lester, 2020; Malone, 2015; Soreanu and Hurducaş, 2016). Such a perspective has underpinned the proposed relational capability approach, which argues that if conditions are right for children to play, children have the *capability* to do and be well. Children's spatialities are embedded in power relations and this is particularly so in terms of where they play (Carroll *et al*., 2019; Lester, 2020; Pyyry, 2016; Pyyry and Tani, 2019; Soreanu and Hurducaş, 2016). Children's play is inherently spatial: all play *takes place* somewhere (Lester, 2020; UN Committee on the Rights of the Child, 2013). This is more than a material and social emplacement, it is an ongoing relational and emergent process experienced through the senses, movement and imagination (Joelsson, 2022).

Playing out and being well

When children can play out, they build an intimate knowledge of neighbourhoods (Bauer *et al*., 2022; Jansson *et al*., 2016; Wales *et al*., 2021). Children's engagement with spaces is embodied and affective, experienced through movement and the senses as well as the imagination through which spaces are imbued with meanings (Joelsson, 2022). In this way, children develop a *sense* of place, an affective and embodied connection and place attachment (Bartos, 2013). Place attachments offer a sense of security and belonging, social affiliation and opportunities for creative expression and exploration (Koller and Farley, 2019; Weir *et al*., 2022). Although place attachment often develops in spaces away from adults, there is a tension between the desire for autonomy and risk (often through attachment to secret spaces) (Bauer *et al*., 2022) and the sense of security that can be gained from nearby adults. Attachment to place can offer stability at times of change and paying attention to children's experiences of place can be important when supporting displaced children (Weir *et al*., 2022). Playing out and having special places, to which children often give their own names (Bauer *et al*., 2022; Russell *et al*., 2023; Wales *et al*., 2021), fosters a sense of belonging and self-efficacy, protecting and enhancing wellbeing (Bourke, 2017; Hooper *et al*., 2015; Wales *et al*., 2021).

Children build attachments to special places of refuge from the demands of everyday life (Arvidsen and Beames, 2019; Malone, 2015; Vanderstede, 2011). These are places to which children return repeatedly, and which may have particular value for marginalised or at-risk children and youth (Malone, 2015). Refuge is not something that is taken from a static and unchanging space, but is embedded in ongoing relations and practices (Arvidsen and Beames, 2019).

Time and greater freedom to play outdoors with friends, away from the direct supervision and control of adults, is consistently associated with improved levels of physical activity and fitness, and less sedentary behaviour (Brockman *et al.*, 2011; Foster *et al.*, 2014; Gray *et al.*, 2015; McQuade *et al.*, 2019; Wen *et al.*, 2009). When children play outdoors without adult supervision, they are more likely to engage in adventurous and risky forms of play (Gray, 2020). This brings with it benefits including the capacity to cope with surprise and novel situations (Gray, 2020; Sandseter, 2010; Sandseter and Kennair, 2011), reduced anxiety (Dodd and Lester, 2021; Dodd *et al.*, 2022) and a sense of belonging arising from shared play episodes (Little and Stapleton, 2021), and a sense of vitality both from the thrill of risk taking and playing with fear more generally, generating a sense of joy associated with wellbeing (Sando *et al.*, 2021).

Conversely, the apparent decline in playing out away from the direction and intervention of adults has also been associated with a rise in childhood and adolescent psychopathology, including increased anxiety and depression (Gray, 2011; Gray *et al.*, 2023), higher levels of hyperactivity and attention deficit, reduced sense of wellbeing and quality of life (Suchert *et al.*, 2015), as well as heightened feelings of loneliness associated with a weaker sense of community, reduced sense of safety, and fewer, more irregular social activities with friends (Pacilli *et al.*, 2013).

Playing in the digital realm

Children's digital and non-digital lives are intimately interwoven (Bailey, 2021; Burke, 2013; Ruckenstein, 2013; Stevens *et al.*, 2017; Wilson, 2016). Children's virtual worlds and other connected digital games can support children's wellbeing through their inherent sociality (Carter *et al.*, 2020; Markey *et al.*, 2020; Robertson, 2021), although they carry with them the potential for harm and exclusion, just as offline spaces do (Colvert, 2021; Marsh, 2011, 2012; Stevens *et al.*, 2017). Familiarity with the language, lore, myths and rituals (Robertson, 2021) of online games and platforms can engender a sense of belonging (Bailey, 2016, 2021; Marlatt, 2020; Marsh, 2012; Ringland, 2019). Online spaces can offer opportunities for social connections with friends (most of which are existing offline friends) (Carter *et al.*, 2020) that can transcend the constraints imposed by adults (Colvert, 2021; Ruckenstein, 2013; Wilson, 2016). This can be particularly true for looked after children,[12] many of whom move frequently and so have difficulty maintaining social contacts other than through social media and video gaming (Wilson, 2016). In addition, safe and familiar digital spaces can offer the opportunity for children to express their vulnerabilities in many different ways, and to play with identity (Bailey, 2021; Ruckenstein, 2013; Yau and Reich, 2018), including for autistic children (Ringland, 2019) and LGBTWQIA+ young people (Downing, 2013).

'Natural' places

There is a burgeoning literature on children's (lack of) contact with nature (Charles and Louv, 2009, 2020; Edwards *et al.*, 2020; Frumkin *et al.*, 2017; Larson *et al.*, 2019; Louv, 2005; Moss, 2012). Systematic reviews, whilst urging caution and highlighting a lack of consistency between studies, suggest a number of benefits for children's contact with nature (summarised by author below, therefore with some overlaps):

- physical activity, fitness and development of motor skills, creativity, and social and emotional benefits (Dankiw *et al.*, 2020);

- attention restoration, working memory, social affiliations, self-discipline, improving behaviour and symptoms of ADHD, improving academic performance, offering relief from stress (McCormick, 2017);

- positive (and sometimes negative) affect, self-esteem and confidence, stress reduction and restoration, social benefits and resilience (Roberts *et al.*, 2019);

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[12] Children in the care of the local authority.

- positive relationships, socially adaptive behaviours, social competences, emotion management and expression, behavioural inhibition, thoughts of self, overall socioemotional adaptation, and symptoms of autism and ADHD, working memory, and also a deeper and longer engagement in play (Mygind *et al.*, 2021);

- symptoms of ADHD, overall mental health, reduced stress, resilience, health-related quality of life (Tillmann *et al.*, 2018);

- environmental knowledge and more pro-environment attitudes as an adult (Gill, 2011, 2014).

Nevertheless, critiques of the idea that children are losing their connection to nature are several (Kraftl *et al.*, 2018; Lester, 2016; Malone, 2016a; Rautio *et al.*, 2017; Taylor, 2017). Some question what is meant by 'nature' and point out that urban children can find it 'in the cracks and crevices of cement, in the footprints of foxes and city rabbits' (Rautio *et al.*, 2017, p. 1379). Others highlight the romanticisation of nature that combines powerfully with ideals of childhood innocence (Harwood *et al.*, 2019; Kraftl *et al.*, 2018; Lester, 2016, 2020; Taylor, 2013, 2017) in ways that are classed, racialised and gendered (Dickinson, 2013; Taylor, 2017). Critics also point out that the idea of 'disconnection' from nature perpetuates a nature-culture separation (Fletcher, 2017). Environmental scientists are now clear about the inextricable entanglements of humans and the environment and the minority world's devastating impact on the earth's bio- and geo-systems (Taylor, 2017). Moving beyond human exceptionalism requires taking seriously the idea that we are always already implicated in the complex and entangled meshwork of human and nonhuman forces (Malone, 2016a, 2016b; Murris, 2016; Rautio *et al.*, 2017; Taylor, 2017).

From a relational perspective, rather than seeing the 'child in nature' (Harwood *et al.*, 2019, p. 58), attention can turn to the entanglements of bodies (human and non-human), materialities (both 'natural' and manufactured) and affect (Harwood *et al.*, 2019; Malone, 2016a, 2016b; Rautio *et al.*, 2017). Without diminishing the importance of research into the benefits of time spent with/in nature, the binary separation can be disturbed and rethought through paying attention to and taking account of small, everyday and even mundane encounters (Änggård, 2016; Goodenough *et al.*, 2021; Harwood *et al.*, 2019; Nelson, 2020; Rautio and Jokinen, 2016; Wales *et al.*, 2021).

1.5.9 Returning to playing and being well

Despite the seeming gulf between different disciplinary approaches to researching the relationship between children's play and their wellbeing, there is remarkable similarity – and caution – in the conclusions. Most studies are cautious in the claims they make, acknowledging the interdependence and relationality of neural processes, senses, movement, affect, cognition, other humans, non-humans, objects, historical-cultural contexts, politics, policies and spaces. Children do not exist and develop in isolation from the rest of their worlds, and playing can both absorb the actualities of children's everyday lives and offer the opportunity to imagine them differently. The summary offered below is overly simplistic and generalised, but will give a flavour of how embedded play is in children's wellbeing, and its role in Nussbaum's (2007) ten core capabilities of Life, Bodily Health, Bodily Integrity, the Development and Expression of Senses, Imagination and Thought, Emotional Health, Practical Reason, Affiliation (both personal and political), Relationships with Other Species and the World of Nature, Play, and Control over One's Environment (both material and social):

- play matters to children

- the pleasure of playing makes a significant contribution to mental health and motivates further playing

- the skills, dispositions and bodily integrity that are both needed for and honed through playing can make playing more satisfactory and contribute to wellbeing beyond play

- play's interrelated and interdependent embodied, sensual, dynamic and affective dimensions can add to its vitality and contribute to physical health and strength, emotion regulation and healthy stress response systems

- through playing children can build attachments to peers, other adults, non-human animals, objects and places, contributing to children's sense of security and belonging and of being able to affect their own lives and the lives of others

- play can operate as a form of participation in everyday life, contributing to the production of neighbourhoods and social networks

- nonsense is valuable and the 'what if?' potential of play supports creativity and innovation, which can contribute to evolution

- playing has both intrinsic and instrumental value, and whilst it is not helpful to see these forms of value as binary and mutually excluding opposites, instrumental value can be realised more effectively if intrinsic value is recognised

- play, whilst for the most part offering such benefits, should not be romanticised since it is ultimately amoral and can reproduce the inequalities and cruelties that exist outside of play.

Play is not offered here as a panacea for the injustices that children face both because of their status as children and due to other intersections of injustice. The current economic, geopolitical and environmental crises present real threats to children's capability for life, bodily health, bodily integrity and other elements in Nussbaum's list that depend on just access to adequate food, housing, healthcare, education and other basic public services as well as financial, social and environmental security. Nevertheless, play is included in Nussbaum's list precisely because it can contribute in significant ways to wellbeing.

From a relational perspective, the flows and intensities of affect that arise from encounters produce feeling states that affect the capacity for engagement, the power to affect and be affected by the ongoing doings of life: feelings of being well or not being well. If playing is seen as one of the ten central human capabilities (for all ages) in Nussbaum's list, then a capability approach to wellbeing would need to pay attention to the spatial, temporal and affective conditions that support opportunities to play for children to be capable of doing and being well. These conditions are reviewed in chapters 4 and 5.

1.6 Children's play today (chapter 4)

Thinking about children's opportunities for play from a relational capability approach turns attention towards the entangled conditions of children's everyday lives and the extent to which these can support or constrain opportunities for playing, noting that both may be the case at the same time in some circumstances. Children's capability to find time and space for playing is relationally produced and co-dependent on a multitude of interrelated factors and forces which at times form temporary alliances to create spatial and affective conditions that are more or less open to the possibility of playing. Where conditions are conducive, playing emerges through and as encounters between children, other bodies and the materiality and affective atmospheres of their *milieux*.[13]

A common concept to be found in the literature on how, when, where and with whom children play draws on theories of affordances (for example, Chatterjee, 2017; Gill, 2021; Heft and Kyttä, 2006; Kyttä *et al*., 2018; Li and Seymour, 2019; Malone, 2015; Woolley, 2013). Affordances are what an organism perceives an environment could

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[13] The term *milieu* is used here to refer to the broad contexts of children's lives, and embraces the entanglements of physical, social, cultural, affective, historical, political conditions. It is a French term that means both in the middle of and surroundings, working well with ideas of assemblages and entanglements and overcoming the problem of talking about human-environments relations as interactions of two separate phenomena (Lester, 2020; Massumi, 2013).

offer for action (Gibson, 1979). As was shown in chapter 3, perception entails senses, movement and affect as well as cognition (Corris and Chemero, 2022; Sheets-Johnstone, 2018). Important too are the social and emotional aspects that also influence whether or not a child can actualise a physical affordance (Kyttä, 2004). A relational capability approach allows for a politicisation of the theory of affordances. The personal, social, political, temporal and spatial conditions that mean children can actualise physical affordances – that they can convert resources into the capability to play – are matters of social and spatial justice.

With respect to the role of adults (a primary concern of this literature review), such an understanding includes and moves beyond the provision of designated times and spaces for play, to consider the myriad ways in which adults, directly and indirectly, intentionally or otherwise, influence children's capabilities for playing, and therefore how we might better attend to children's capability to play. The twin processes of account-ability and response-ability have been used in research into the Welsh Government's Play Sufficiency Duty (Lester and Russell, 2013a, 2014a; Russell *et al*., 2019, 2020) and are also used in this literature review to structure chapters 4 and 5. Account-ability in this context refers to the ability of adults to take account of and to account for children's everyday lived experiences, the extent of their capabilities to play, and the diverse flows and forces that influence those capabilities (chapter 4). Response-ability involves using this evidence to critically examine habits of thought, language and practice that make spaces more or less open to the possibilities for play to emerge. This is about re-thinking adult approaches to play, developing and implementing actions designed to open up and keep space open for playing, with the aim of protecting, maintaining and cultivating more favourable conditions for play (chapter 5).

Chapter 4 is therefore an account of the research on children's contemporary play patterns and the interrelated conditions of children's lives, which in turn shape and are shaped by children's opportunities for playing. It starts from the recognition that children play anywhere and everywhere (UN Committee on the Rights of the Child, 2013), and so accounting for children's play patterns requires looking beyond designated times and spaces for playing. It also means paying attention to the intersections of macro level structures, forces and influences and the detail of children's everyday experiences. Often, the literature considers one or the other (Freeman, 2020; Holloway, 2014; Horton and Kraftl, 2018a; Malone and Rudner, 2016). A relational approach to accounting for children's play moves beyond simplistic dichotomies of agency/structure, local/global, childhood/adulthood, nature/culture, private/public, urban/rural, online/offline and physical/virtual (Änggård, 2016; Ansell, 2009; Holloway, 2014; Malone, 2016a, 2016b; Marsh *et al*., 2016; Nairn and Kraftl, 2016; Smith and Dunkley, 2018). It can instead attend to the complexities of these relations, recognising that they are situated and negotiable (Malone, 2016a, 2016b; Prout, 2011; Ruckenstein, 2013), and that children's lives are dynamic, continuously changing over time and space (Freeman, 2020).

1.6.1 A framework and structure for the chapter

Chapter 4 is structured using the idea of first, second and third places.[14] First place refers to the home. Second place refers to places of obligation, which for adults is work, but for children includes school and other non-domestic spaces they are compelled to attend for education, childcare and development. Outside of school and home, third places are public spaces that provide a context for sociability, emotional expression, spontaneity and (particularly for this review), where children play (Carroll *et al*., 2015). These characteristics of third places facilitate the affective benefits valued by children and engender feelings of wellness, provide stress relief, and improve perceptions of quality of life, of community/neighbourhood, and of inclusion, belonging and participation

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[14] These ideas draw on original work by Oldenburg (1989), Oldenburg and Brissett (1982) and more recent work that has adapted this to consider children's everyday spatialities (Hooper *et al*., 2015; Kearns *et al*., 2016; Oliver *et al*., 2016; Shortt and Ross, 2021; Witten and Carroll, 2016; Witten *et al*., 2015; Witten *et al*., 2019).

(Jeffres *et al*., 2009). In considering what might count as first, second or third place for children's play it is helpful not to restrict the categories too narrowly to specific geographic sites. Categorisation is not absolute but based on the function a space provides, and this may be fluid and vary at different times or in different contexts.

After the introductory section, the chapter reviews the common claim that children's outdoor play is in decline, noting how this is often conflated with a decline in play overall; considers approaches to measuring children's outdoor play and its close connection with children's freedom of movement; and reviews the safety concerns and other factors that have affected children's capability to play out. After this broad contextualisation, the remainder of the chapter works with the third place framework to explore the literature on contemporary conditions for play across a range of distinct, but interconnected, contexts including the public realm, the pandemic, home, digital spaces and adult-supervised spaces.

1.6.2 A decline in play(ing out)?

A common claim made by adults about children's play today is that children in general are playing less than in previous generations (Bergen, 2018; Borst, 2021; Brown, 2014; Gleave and Cole-Hamilton, 2012; Gray, 2011, 2023). Whilst this may be true for some children, we found little empirical evidence to suggest that the majority of children have somehow stopped playing (or do not know how to play). However, there is no doubt that contemporary conditions for children's play have changed significantly compared with what many older adults may have experienced in their childhoods (Basset *et al*., 2015; Harris, 2017; Jelleyman *et al*., 2019; McQuade *et al*., 2019; Play England, 2023), with implications for children's capabilities for playing, leading to changes in children's play patterns. What this demonstrates is not that children are playing less but that some of the time they are playing in different places and in different ways from previous generations, perhaps in ways that are perceived to be of less value (Alexander *et al*., 2014, 2019; Cook, 2019; Gray *et al*., 2015; Harris, 2017; Janssen *et al*., 2016; Lester, 2016; Lewis, 2017; McQuade *et al*., 2019; Wood, 2012).

Based on the available evidence we conclude that where there has been a decline in play, it is in children's freedom to play out and about in the public realm and the amount of time they spend doing so (Barron and Emmett, 2020; Bates and Stone, 2015; Gray *et al*., 2015; Holt *et al*., 2016; Karsten, 2005; Lewis, 2017; Loebach *et al*., 2021; McQuade *et al*., 2019; Mullan, 2019; Woolley and Griffin, 2015). Whilst acknowledging both the diversity of childhoods and critiques of some of the assumptions and methods of data collection (Bhosale *et al*., 2017; Cleland *et al*., 2010; Dodd *et al*., 2021; Horton and Kraftl, 2018a, 2018b; Lehman-Frisch *et al*., 2012; Loebach *et al*., 2021; Malone and Rudner, 2016; Martin *et al*., 2023; McQuade, 2019; Rixon *et al*., 2019), there are discernible trends across minority world countries showing a decline in the numbers of children playing out regularly (Loebach and Gilliland, 2016a, 2016b; Play England, 2023) and the amount of time children spend playing outside (Larouche *et al*., 2017), an increase in the age at which most children are allowed out to play (Dodd *et al*., 2021; Shaw *et al*., 2015), and reductions in the distances children are allowed to travel without adult accompaniment (Dodd *et al*., 2021; Gill, 2021; Malone and Rudner, 2016; Shaw *et al*., 2015). These changes are accompanied by an associated shift in children's play patterns towards more time spent playing in and around the home, more time playing under the supervision of adults, and big increases in children's play with digital devices, with subsequent changes in children's peer play culture (Holt *et al*., 2016; McQuade *et al*., 2019).

Nevertheless, children overwhelmingly continue to report a strong desire for playing outside with their friends (Brockman *et al*., 2011; Children's Commissioner for England, 2021; Children's Commissioner for Wales, 2018; Dallimore, 2019; HAPPEN, 2018), and when the conditions are right, children do still play out (Dallimore, 2019; Dodd *et al*., 2021; Freeman, 2020; Kraftl, 2020b; Russell *et al*., 2019, 2020).

1.6.3 Everyday freedoms and playing out

There is a close correlation between children's freedom to move around their neighbourhoods and time spent playing out (Frohlich and Collins, 2023; Loebach *et al*., 2021; Wen *et al*., 2009). The rather adult-centred notion of children's independent mobility has been critiqued for potentially overlooking the many rich ways in which children negotiate and share their movements in the public realm with human and non-human others (Kraftl, 2020b; Loebach and Gilliland, 2016a, 2016b; Mikkelsen and Christensen, 2009; Murray and Cortés-Morales, 2019; Nansen *et al*., 2015; Russell *et al*., 2020). Nevertheless, the reasons for the decline in children's freedom of movement and therefore playing out are several and complex. Two reasons given are often the safety concerns of parents (Borst, 2021; Day, 2023; Gray, 2011; Lee *et al*., 2015; Tremblay *et al*., 2015) and the lure of digital technology (Brown, 2014; Elkind, 2008). Whilst these are clearly highly influential, they cannot be seen as simple and singular cause and effect forces to blame, since they are entangled in broader material-discursive practices that affect the conditions of children's everyday lives. For example, generalising statements about adult over-protection can invisibilise those at greater risk and blame caregivers for what are often structural issues (Bauer *et al*., 2021; Gerlach *et al*., 2019; Giles *et al*., 2019; Talbot, 2013), including the very real risks faced by those living in structurally marginalised neighbourhoods (Gerlach *et al*., 2019). Further, within a discourse of childhood risks, parents and carers must be 'risk managers', constantly vigilant, to both protect children and avoid criticism from other adults (Day, 2023; McQuade *et al*., 2019; Mainland *et al*., 2017; Pynn *et al*., 2019; Rixon *et al*., 2019), with news and social media often serving to amplify parental guilt and perceptions of risk (Chaudron *et al*., 2017; Day, 2023; Talbot, 2013).

Taking such complex forces into account returns focus to children's capability to play out as a matter of spatial justice. Whilst the concept of spatial justice applies across all the places and spaces of childhood, the research reviewed clearly indicates that the site of the most egregious spatial injustice is in public space and children's capability to play out in their neighbourhoods. Looking at structural, macro level forces, two examples of major constraints on children's capability to play out in their neighbourhoods have their basis in the prioritisation of the economy over citizen wellbeing (Bollier, 2016; Monbiot *et al*., 2019). The first is the loss of undefined spaces children often appropriate for playing, since such plots are increasingly acquired and enclosed for specific commercial purposes (Hart, 2014), much of it being sold into private ownership (Brett, 2018; Grant, 2022; Layard, 2019; Monbiot *et al*., 2019; Smith, 2021). Between 1979 and 2018, 10%, of Britain's landmass, the equivalent of two million hectares, was transferred from public to private ownership (Brett, 2018). The second example is that the economy requires the efficient movement of goods and people to support the processes of production, distribution and consumption, making motor vehicles, both parked and moving, the primary users of residential streets (Frohlich and Collins, 2023; Monbiot *et al*., 2019; Russell, 2021; Wood *et al*., 2019). Over the last 25 years, the number of cars licensed in Great Britain has risen by 39.6% (NimbleFins, 2022), meaning that there are over three times as many motor vehicles as children in the UK (Department for Transport, 2019a; Office for National Statistics, 2020b; White, 2019), with all of them taking up considerable space when either moving or parked. Whereas these forces have significant impact on all children's capability to play, others affect particular children. The intersections of age, gender, class, dis/ability and ethnicity are fundamental to understanding how different children's opportunities for play are shaped by the political and socio-spatial arrangements of their everyday lives (Brito *et al*., 2021; Horton and Kraftl, 2018a, 2018b; Laoire, 2011; Mukherjee, 2020; Ortiz *et al*., 2016; Pinkney *et al*., 2019; Skelton, 2009; Stafford *et al*., 2020).

These wide-ranging, fluid and entangled influences can be seen as 'conversion factors' (Robeyns, 2017) (or conditions) that affect children's capability to play out. The summary offered below gives a flavour of the key personal, social and environmental conversion factors that affect children's capability to play out that emerged from the literature, recognising their relationality. Although we have categorised some factors as personal, it should be stressed that these are not 'possessed' by individuals but are produced through the entanglements of personal characteristics and socio-political forces.

Personal factors

- Children's

    - age and perceived level of competence (Alparone and Pacilli, 2012; Janssen *et al*., 2015; Lee *et al*., 2015; Loebach *et al*., 2021; Shaw *et al*., 2012; Zougheibe *et al*., 2021);

    - gender (Bornat and Shaw, 2019; Boxberger and Reimers, 2019; Helleman, 2021; Lambert *et al*., 2019; Lee *et al*., 2015; Loebach *et al*., 2021; Mansfield and Couve, 2020; Martins *et al*., 2015; Mullan, 2019; Shaw *et al*., 2012, 2015; Villanueva *et al*., 2014; Zougheibe *et al*., 2021);

    - dis/ability, neurodiversity and mobility (Beetham *et al*., 2019; Dallimore, 2019; Dodd *et al*., 2021a; Horton, 2017; Memari *et al*., 2015; Stafford *et al*., 2020; von Benzon, 2017);

    - race and ethnicity (Aggio *et al*., 2017; Allport *et al*., 2019; Barclay and Tawil, 2021; Dumas and Nelson, 2016; Elliott and Read, 2019; Giralt, 2011; Goff *et al*., 2014; Pinckney *et al*., 2019; Wallace, 2018; Wen *et al*., 2009);

    - socioeconomic status (Boxberger and Reimers, 2019; Loebach *et al*., 2021; Long, 2017; Pacilli *et al*., 2013; Parent *et al*., 2021; Schoeppe *et al*., 2016; Suchert *et al*., 2015; Veitch *et al*., 2017).

- Presence of older siblings and numbers of children in the household (Alparone and Pacilli, 2012; Singer *et al*., 2009).

- Children's motivations, preferences and interests, associated with children's perceptions of neighbourhood safety and the availability of friends to play with (Cleland *et al*., 2010; Loebach *et al*., 2021; Shaw *et al*., 2012; Veitch, 2007).

- The appeal of (predominantly indoor based) digital technologies (Bailey, 2021; Bhosale *et al*., 2017; Chaudron *et al*., 2018a; Colvert, 2021; Eyre *et al*., 2015; Grimes, 2015; Loebach *et al*., 2021; Loebenberg, 2013; Marsh *et al*., 2016, 2020; Ruckenstein, 2013; Willet, 2017; Verdoodt *et al*., 2021).

Social factors

- Cultural and social norms and expectations of parents, with parenting styles influenced by particular views of children and childhood and affecting permission for playing out (Allport *et al*., 2019; Bacon, 2018; Bhosale *et al*., 2017; Carroll *et al*., 2015; Day, 2023; Dodd *et al*., 2021; Foy-Phillips and Lloyd-Evans, 2011; Holloway and Pimlott-Wilson, 2014; Holt *et al*., 2015, 2016; Jelleyman *et al*., 2019; Lee *et al*., 2015; Loebach *et al*., 2021; Mainland *et al*., 2017; Mansfield and Couve, 2020; Marsh *et al*., 2020; Pynn *et al*., 2019; Smith *et al*., 2018; Talbot, 2013; Vincent and Maxwell, 2016; Visser *et al*., 2015).

- Parental perceptions of neighbourhood safety and the perceived need for surveillance of children (Day, 2023; Eyre *et al*., 2015; Janssen *et al*., 2015; Lee *et al*., 2015; Long, 2017; Riazi *et al*., 2019).

- People's sense of community and levels of social trust (Lee *et al*., 2015; Long, 2017).

- Attitudes and actions of other residents or housing managers, including contractually prohibiting play because it is a reported nuisance to adult residents (Grant, 2022; Krysiak, 2018; Play England, 2023; Witten *et al*., 2015).

- Risks of living in areas with high levels of drug and alcohol use, homelessness and the sex trade (Gerlach *et al*., 2019; Witten and Carroll, 2016; Witten *et al*., 2015, 2019).

- Levels of crime and violence, historic and/or more recent traumatic events (Malone and Rudner, 2016), as well as urban myths and rumours (Horton and Kraftl, 2018a).

- Media coverage of crime, violence and tragic events involving children (Lee *et al.*, 2015; Bhosale *et al.*, 2017).

- Family routines and schedules (Crawford *et al.*, 2017; Nansen *et al.*, 2015; Visser, 2020).

- Parental working patterns, presence at home, and the time they have available to support children's activities (Lee *et al.*, 2015; Smith *et al.*, 2018).

- Levels of homework set by schools (Mullan, 2019; Smith *et al.*, 2018).

- The 'free time' available to children (Bhosale *et al.*, 2017; Holloway and Pimlott-Wilson, 2014; Loebach *et al.*, 2021; Malone and Rudner, 2016; Smith *et al.*, 2018).

- The extent to which a culture of playing out exists in neighbourhoods (Malone and Rudner, 2016) together with associated tolerance and acceptance of such behaviours amongst adult residents (Long, 2017).

Environmental and structural factors

- Demographics of the neighbourhood, particularly socio-economic status and percentage of the population that are children, including availability of neighbourhood friends to play with (Jago *et al.*, 2009; Lee *et al.*, 2015; Loebach *et al.*, 2021; Veitch, 2007; Zougheibe *et al.*, 2021).

- The intersections of poverty, structural marginalisation, exclusion, racism, ableism, sexism, classism, heterosexism and childism (Aggio *et al.*, 2017; Akerman *et al.*, 2017; Allport *et al.*, 2019; Barclay and Tawil, 2021; Beetham *et al.*, 2019; Bornat and Shaw, 2019; Boxberger and Reimers, 2019; Brockman *et al.*, 2009; Dallimore, 2019; Dodd *et al.*, 2021; Dumas and Nelson, 2016; Elliott and Read, 2019; Gerlach *et al.*, 2019; Giralt, 2011; Goff *et al.*, 2014; Helleman, 2021; Horton, 2017; Horton and Kraftl, 2018b; Kimbro and Schachter, 2011; Lee *et al.*, 2015; Loebach *et al.*, 2021; Mansfield and Couve, 2020; Memari *et al.*, 2015; Mullan, 2019; Pacilli *et al.*, 2013; Parent *et al.*, 2021; Pinckney *et al.*, 2019; Stafford *et al.*, 2020; Villanueva *et al.*, 2014; von Benzon, 2017; Wallace, 2018; Wang and Ramsden, 2018; Watchman and Spencer-Cavaliere, 2017; Zougheibe *et al.*, 2021).

- Settlement size and type, level of urbanisation and associated urban form (Malone and Rudner, 2016) including the topographic and geographic layouts of neighbourhoods (Bornat, 2016; Bornat and Shaw, 2019; Loebach *et al.*, 2021; Long, 2017).

- Volume and speed of traffic, associated road safety issues and levels of on street parking (Basset *et al.*, 2015; Bhosale *et al.*, 2017; Frohlich and Collins, 2023; McQuade *et al.*, 2019; Veitch *et al.*, 2017; Wales *et al.*, 2021).

- Street connectivity and the availability of traffic-free walking and cycling routes (Bornat, 2016; Bornat and Shaw, 2019; Malone and Rudner, 2016; Oliver *et al.*, 2015; Villanueva *et al.*, 2014; Wales *et al.*, 2021).

- Proximity, number, diversity, accessibility, connectedness and greenness of playable spaces (Bhosale, 2017; Broberg *et al.*, 2013; Lee *et al.*, 2015; Othman and Said, 2012; Smith *et al.*, 2018; Villanueva *et al.*, 2014; Wales *et al.*, 2021).

- Design, functionality, and maintenance of public spaces, including the range of affordances and sense of security offered to different ages of children (Eyre *et al.*, 2015; Lee *et al.*, 2015; Veitch 2007).

- Ease of access (Jago *et al.*, 2009; Lee *et al.*, 2015; Veitch, 2007).

- School location, siting decisions and distances between home and school (Basset *et al.*, 2015; Fyhri *et al.*, 2011; Malone and Rudner, 2016; Oliver *et al.*, 2015).

- Weather, time of year and daylight hours (Brockman, 2011; Ergler *et al.*, 2013; Eyre *et al.*, 2015; Smith *et al.*, 2018).

- Privatisation of public space and the commercialisation of play provision (Brett, 2018; Frago and Graziano, 2021; Hart, 2014; Layard, 2019; Lee *et al.*, 2015; Monbiot *et al.*, 2019; Shearer and Walters, 2015).

- Consumer culture, corporate interests, and associated commercialisation of childhood (Colvert, 2021; Grant, 2022; Holloway and Pimlott-Wilson, 2014; Marsh, 2011, 2012, 2014; Verdoodt *et al.*, 2021).

- Government ideology, associated policy, levels of public investment, and regulation of corporate interests (Association for Public Service Excellence, 2021; Burman, 2019; Kallio *et al*., 2020; Katz, 2019; Lester, 2020; Pyyry and Tani, 2019; Russell, 2021; Smith, 2021; Wood *et al*., 2019).

Despite the many constraints, children do still play out when conditions allow. Children's informal everyday interactions through travel, play, leisure and recreation can be seen as participation in public life (Derr *et al*., 2017; Malone, 2013; Wales *et al*., 2021), actively contributing to the social production of neighbourhood spaces (Bullough *et al*., 2018; Lester and Russell, 2013a) and helping to build their own and families' social capital, social networks and community engagement (Bornat, 2016; Carroll *et al*., 2015; Freeman, 2020; Heft and Kyttä, 2006; Malone, 2013; Nairn and Kraftl, 2016; Pacilli *et al*., 2013; Ross, 2007; Schoeppe *et al*., 2016; Wood *et al*., 2013), thereby building a culture that further supports playing out.

Spaces often referred to as the 'street', whilst rarely designated as play spaces by adults, are those most often appropriated by children for play (Barclay and Tawil, 2013; Danenberg *et al*., 2018; Francis, 2016; Gill, 2021; Tranter, 2015; Weir, 2023) and can readily be recognised as third places for them (Hooper *et al*., 2015; Kearns *et al*., 2016; Oliver *et al*., 2016; Shortt and Ross, 2021; Witten and Carroll, 2016; Witten *et al*., 2015; Witten *et al*., 2019). The street can incorporate threshold spaces, transitory zones and destinations spaces (Carroll *et al*., 2015; Witten and Carroll, 2016). Threshold third places include the foyers, communal leisure facilities, and corridors of those living in medium and high-density housing, as well as adjacent pathways, streets and verges, car parks and driveways (Bornat and Shaw, 2019; Tranter, 2016; Witten *et al*., 2019) that are close to home, and are commonly reported as popular places to play (Barclay and Tawil, 2013; Danenberg *et al*., 2018; Francis, 2016; Gill, 2021; Tranter, 2015; Weir, 2023; Witten *et al*., 2015).

Children also use streets and pathways, steps and walls, and networks of alleyways as both destination and transitory zones, playing along the way, as well as visiting particular places for particular reasons. This might include hopping to avoid pavement cracks, climbing, people watching, hanging out or 'just walking', again making such streetscapes important third place spaces (Appelhans and Li, 2016; Beresin, 2012, 2014; Carroll *et al*., 2015; Furneaux and Manaugh, 2019; Horton *et al*., 2014; Janssen, 2014; Kearns *et al*., 2016). The mundane and often overlooked detail of street geography, for example kerbs, potholes, street cambers and slopes, wildflowers and weeds, can be important affordances for play (Othman and Said, 2012; Russell and Stenning, 2021, 2022). Often children appropriate streets in ways not intended by planners (Nairn and Kraftl, 2016), for example in their play or street sport sub-cultures such as skateboarding, blading, BMX and parkour. Such appropriation can be seen as a soft form of political activism, remaking streets and cultures through participation (Mould, 2016; Nairn and Kraftl, 2016; Pyyry and Tani, 2019; Rannikko *et al*., 2016; Stratford, 2016).

Destination third places, significant in children's lived experience, include small pockets of land, vacant lots, car parks, empty school playgrounds, woodland spots, shopping malls, shopfronts and more (Carroll *et al*., 2015; Kearns *et al*., 2016; Pyyry, 2016; Witten and Carroll, 2016), as well as designated spaces such as playgrounds and parks. These are important spaces for meeting up and being with friends, playing traditional games and sports, climbing, imaginary play, and as places of refuge (Arvidsen and Beames, 2019; Carroll, *et al*., 2015; McKendrick *et al*., 2018; Wilson, 2015).

Playgrounds, parks and green spaces are also popular destination spaces for children (Dodd *et al*., 2021; Helleman, 2021; Porter *et al*., 2021). In terms of playgrounds, older children tend to feel that they are aimed at younger children and often do not cater for them (Kraftl, 2020b; Lee *et al*., 2015; Lynch *et al*., 2020; Russell, *et al*., 2019). Playground design can be based on normative conceptions of children's bodies, ways of being in the world and mobilities, thereby excluding disabled children (Brown *et al*., 2021; Lynch *et al*., 2018; Moore *et al*., 2022). The concept of universal design is recommended in the United Nations Convention on the Rights of the Child General Comment no. 17, but also creates a tension between access and challenge (Lynch *et al*., 2018). Equally, provision

for teenagers tends to focus on stereotypically masculine activities such as skateparks and Muli-Use Games Areas (MUGAs) (Corkery and Bishop, 2020; Seims *et al*., 2022).

The concept of universal design, with the intention of providing inclusive playgrounds, is difficult to deliver given the multiplicity of what a play space could offer across age, size, preferences and balancing safety and challenge (Lynch *et al*., 2020). The last 20 years has seen a growing narrative in favour of balancing risks and benefits in playground design (Ball *et al*., 2008, 2012; Ball *et al*., 2019; Spiegal *et al*., 2014).

Playground maintenance is an important issue for children (Horton and Kraftl, 2018a, 2018b; Loebach *et al*., 2021), but budgets for both playgrounds and parks have faced significant cuts (Association of Play Industries, 2022; Association for Public Service Excellence, 2021; Russell *et al*., 2019). The social production of playground spaces varies across socio-political, topographical, cultural, religious, raced and classed geographies, with structurally marginalised urban areas being seen as risky because of the appropriation of playgrounds by rough sleepers, drinkers, drug users and sex workers together with discarded needles, broken glass bottles and other associated paraphernalia (Gerlach *et al*., 2019; Hobbs *et al*., 2017; Horton and Kraftl, 2018a, 2018b; Witten and Carroll, 2016; Witten *et al*., 2015, 2019).

What emerges from these multiple studies of playing out in the public realm is the interdependence of 'children's infrastructure' and 'everyday freedoms' (Arup, 2017). These can include a variety of spaces (planned and unprogrammed, small or larger, flat or landscaped, built or natural, fixed or flexible); playable features (for example, low walls, hiding spaces, mounds); planting for play (bushes and trees); connections between playable spaces; and sensitive maintenance (for example recognising the value of freshly cut grass, dead leaves, hollows in hedgerows, fallen trees, puddles and mud) (Barclay and Tawil, 2016). For children, being able to access these spaces requires low or traffic-free routes and no major roads to cross (Loebach and Gilliland, 2016a). It also requires friends nearby (Play England, 2023), parental permission (Loebach and Gilliland, 2016a), the absence of threats from other people and their actions (Barclay and Tawil, 2021; Beetham *et al*., 2019; Dias and Whitaker, 2013; Gerlach *et al*., 2019; Giles *et al*., 2019; Goff *et al*., 2014; Horton and Kraftl, 2018a, 2018b; Pinckney *et al*., 2019; von Benzon, 2017; Witten *et al*., 2019) and a culture where playing out is seen as normal (Barclay and Tawil, 2021; Lester and Russell, 2013a; Wales *et al*., 2021). These features do not operate in isolation. In sum, the capability to play out emerges from relations among sufficient environmental resources and the ability to access them.

1.6.4 Playing in and around the home

Erosions in children's freedoms to play in the public realm have meant that private homes have become the most commonly reported and often preferred places for playing (Adcock, 2016; Bacon, 2018; Dallimore, 2019; Dodd *et al*., 2021; Kearns *et al*., 2016; Loebenberg, 2013). In response, parents have invested in toys and media technologies aimed at providing for children's play within the home (Lincoln, 2016), accompanied by a concurrent rise in consumer goods targeted at children (Cowman, 2017). Despite this, there is much less research on children's play in the domestic sphere compared to public spaces or schools, mostly due to privacy and ethics issues and access (Adcock, 2016; Bacon, 2018; Lincoln, 2016; Meire, 2007; Woodyer and Carter, 2020). For many, the home can be a place of safety providing a sense of ownership and familiarity, a place for children to 'be themselves' away from public scrutiny (Adcock, 2016; Harden *et al*., 2013), and a place where children are likely to experience a greater sense of autonomy, negotiating child-adult relationships and shared use of space (Bacon, 2018; Harden *et al*., 2013). However, home is not a place of safety for all children, including those living with domestic violence, abuse and neglect (Chanmugam, 2017; Wilson, 2015), or those living in cramped or temporary accommodation (Russell *et al*., 2019).

Many children's homes are now characterised by an abundance of toys (Arnold *et al*., 2012; Dauch *et al*., 2018; Jones, 2018). The toy industry is big business, with manufacturers seeking to continually attract children with an ever greater variety of increasingly sophisticated toys (Klemenović, 2014). In the UK, total sales for toys in 2020

(during the pandemic) reached £3.3 billion, with the UK being the largest toy market in Europe and fourth largest globally (Toyworld, 2021). Decisions on buying toys are often made between children and parents, or at least influenced by children's interests and preferences (Dinella and Weisgram, 2018; Klemenović, 2014), with media, marketing, and societal gender stereotypes affecting both parents' and children's choices (Dinella and Weisgram, 2018). As children get older the social value of toys becomes increasingly important (Loebenberg, 2012), with toys forming a significant element of the material cultures of childhood (Buckingham, 2011; Mertala *et al.*, 2016; Wilson, 2016; Wohlwend, 2020). Simplistic and negative connotations of consumerism have been challenged, and commercial media and toys can offer a jumping off point from which children consume and produce in creative ways (Cook, 2013; Loebenburg, 2012; Wooder, 2017; Woodyer and Carter, 2020).

With the increase in time spent playing at home, comes an increased emphasis on different spaces with the home. Many children value their bedrooms as spaces for play (Bacon, 2018; Lincoln, 2016), meaning that those with less domestic space are once again at a disadvantage (Adcock, 2016; Bacon, 2018). In addition to sleeping, bedrooms are places for playing and hanging out, for entertaining friends and having sleepovers, for relaxation, for homework, for 'getting ready' and 'beautification' (Bacon, 2018; Lincoln, 2016). Bedrooms also provide children with a place to gather, store and display their material possessions and personal belongings (Adcock, 2016; Bacon, 2018; Lincoln, 2016). Children's use of their bedrooms is continuously negotiated but these can also be spaces where children may avoid direct adult supervision, control and intrusion, escaping nagging, chores or family conflict, or, for example, listening to music not approved of by parents (Bacon, 2018). Although bedrooms can provide a refuge, a place of retreat and recuperation (Bacon, 2018; Lincoln, 2016), this private bedroom culture may also be made more public through the internet, with girls in particular engaging in 'virtual bedroom culture' beyond the physical boundaries of domestic space (Lincoln, 2016; Loebenberg, 2013).

For those who have them, gardens are also important spaces for play, offering a relatively adult-free space still close to home (Arvidsen *et al.*, 2020; Dodd *et al.*, 2021). Particularly popular are trampolines, which can offer vigorous jumping and practising of skills, ball based games, hanging out doing 'trampoline'n'talk', making videos with friends, reading, homework, and doing nothing (Arvidsen *et al.*, 2020). Yet, one in eight households in the UK does not have access to a private or shared garden (Office for National Statistics, 2020a), with homes in the poorest areas of England also, on average, having less than a third of the garden space of homes in the wealthiest areas (McIntyre and Gayle, 2020).

1.6.5 Playing in digital spaces

Technological developments in the 21st century have transformed childhoods and the ways in which children play, with many children in the minority world being of a generation that have never known a time without digital technologies embedded in their lives. Given the ways that children weave media content, digital devices and online activities into the fabric of their everyday lives, the boundaries between online and offline are increasingly blurred (Bailey, 2021; Chaudron *et al.*, 2017; Colvert, 2021; Cowan *et al.*, 2021; Dekavalla, 2021; Lincoln, 2016; Livingstone *et al.*, 2017; Marsh, 2016, 2017; Marsh *et al.*, 2020; Potter and Cowan, 2020; Smith and Dunkley, 2018; Willet, 2017). Although digital technologies may be an omnipresent feature of many contemporary childhoods, this is not to the exclusion of other forms of play and many children continue to have varied play lives (Chaudron *et al.*, 2018a; Marsh *et al.*, 2020).

The attraction of digital play for children possibly lies in how games and platforms provide for the qualities and characteristics of children's play (Chaudron *et al.*, 2018a; Colvert, 2021; Marsh *et al.*, 2016, 2020; Ruckenstein, 2013; Verdoodt *et al.*, 2021; Willet, 2017), including:

- **variability and adaptability:** the increasing adaptability and responsiveness of digital products and services supports children's open-ended play by enabling them to co-create digital play spaces, engage in imaginative play, build shared cultures of play, face challenges, share strategies, pranks, stories, myths and legends, and often subvert game design intentions to play in their own way (Colvert, 2021; Loebenberg, 2013; Marsh *et al.*, 2020; Ringland *et al.*, 2017; Ruckenstein, 2013).

- **access to others to play with:** children value digital devices for enabling them to spend time with those they cannot meet in person, to participate in player communities centred around their favourite games and digital platforms, and to hang out with friends away from direct supervision of adults, whilst also enabling social connections for those who find face-to-face communication difficult (Blum-Ross *et al.*, 2018; Chaudron *et al.*, 2017; Colvert, 2021; Marsh *et al.*, 2020; Ruckenstein, 2013; Willet, 2017).

- **ease of access:** most UK children have access to a range of digital technologies at home and elsewhere (Marsh *et al.*, 2020), and most have internet access (Livingstone *et al.*, 2017). Digital platforms enable children to move beyond the spatial restrictions of home and the public realm, opening up new social and spatial opportunities for children (Blum-Ross *et al.*, 2018; Ruckenstein, 2013). As with permission for 'playing out', parental controls are often negotiated (Chaudron *et al.*, 2018b; Ruckenstein, 2013) and subject to ongoing tensions between children being afforded freedom, concerns for their online safety and the consequence of too much screen time (Chaudron *et al.*, 2018b; Colvert, 2021; Marsh *et al.*, 2019).

Like other aspects of children's play, children's opportunities for play with digital devices are shaped by a multitude of influencing factors and a myriad of stakeholders beyond children themselves. This includes children's access to digital devices and the internet, the form and functions of digital products and services, the people who design digital technologies and their commercial concerns, issues of online safety, governmental and institutional interests, friends, family, social media influencers, social and cultural practices, as well as age, dis/ability, gender, ethnicity and class (Colvert, 2021).

1.6.6 Playing in adult supervised provision

A key tension in research across varied adult-supervised provision is that between children's self-organised playing and whatever instrumental value is placed on play. For example, there are lively debates on the tensions between play, care and education in early years and childcare settings, and how far such tensions constrain children's self-organised playing (Brooker, 2014, 2018; Hewes, 2014; Holloway and Pimlott-Wilson, 2018; Jackson, 2017; Kane *et al.*, 2013; Leggett and Newman, 2017; Loizou, 2017; Moir and Brunker, 2021; Rekers and Waters-Davies, 2021; Santer *et al.*, 2007; Smith, 2010; Wood, 2010, 2014, 2019).

For school-aged children, parents value out of school activities for their children's enjoyment, physical health, and social and cultural capital, as well as for providing children with a safe place to play with their peers (Holloway and Pimlott-Wilson, 2014; Karsten, 2015). Children themselves are enthusiastic about how out of school activities provide opportunities for having fun with friends and for playing, valuing also opportunities to play with adults (Holloway and Pimlott-Wilson, 2014, 2018).

The significant UK commercial and private play sector (including trampoline parks, bowling alleys, cinemas, laser tag, escape rooms, skating venues, children's party rooms, indoor soft play centres, family fun centres and theme parks) (Benton, 2017) was valued at $756.48m in 2020 (Allied Marketing, 2022), and is often marketed in terms of family experiences and/or edutainment (Karsten, 2015; Tagg and Wang, 2016). There has been a discernible move for museums and cultural and heritage sites to be more attractive to families and therefore to consider children's play more, often also researched in terms of family experience (Durko and Petrick, 2013; Fountain *et al.*, 2021; Larson *et al.*, 2013; McCabe *et al.*, 2010; Mukherjee, 2020).

There is little consensus on the value of school playtimes among school staff (Baines and Blatchford, 2019). When asked, most children say they enjoy playtimes (Mroz and Woolner, 2015; Mulryan-Kyne, 2014), but in one substantial English survey 5% said they did not (Baines and Blatchford, 2019). A key complaint is that there are too many rules (Atkinson, 2020; Baines and Blatchford, 2019; Bristow, Fink and Ramstetter, 2018; Thomson, 2007, 2014). Friendships at school are important, and often what children value most (Worth, 2013). Although some adults feel that children no longer know how to play (Alexander *et al*., 2014; McNamara, 2013), research reveals a continuing rich culture of children's play in school playgrounds (Beresin, 2014; Marsh and Willett, 2010; Potter and Cowan, 2020). Such playground cultures are 'expressed through playground songs, games, rituals, naming of specific places in the playground and myriad other practices' (Ardelean *et al*., 2021, p. 15) and absorb whatever material, cultural and social resources that are to hand, again blending children's offline and online worlds (Potter and Cowan, 2020).

1.6.7 Conclusion: accounting for play

Overall, chapter 4 presents a seemingly contradictory picture of, on the one hand, a lively culture of play expressed in a range of contexts, and on the other, stark intersecting inequalities and spatial injustices that constrain children's capability to play across these contexts. Such inequalities have been driven by multiple forces including:

- the imperative of late capitalism and the rise of populism (Lynch, 2019), including the 2008 global financial crisis (Create Streets Foundation, 2021; Katz, 2019; McDowell, 2017);

- the inroads of commercial interests into children's play in the form of digital opportunities, the toy industry, out-of-school activities and commercial play provision, putting such resources beyond the reach of some children (Holloway and Pimlott-Wilson, 2014; Marsh, 2011, 2012);

- in the public realm, the dominance of traffic (Bassett *et al*., 2015; Bhosale *et al*., 2017; Fyhri *et al*., 2011; Jelleyman *et al*., 2019; Loebach *et al*., 2021; Pont *et al*., 2009; Shaw *et al*., 2012, 2015) and issues of neighbourhood safety (Barclay and Tawil, 2021; Beetham *et al*., 2019; Dias and Whitaker, 2013; Gerlach *et al*., 2019; Giles *et al*., 2019; Goff *et al*., 2014; Horton and Kraftl, 2018a, 2018b; Pinckney *et al*., 2019; von Benzon, 2017; Witten *et al*., 2019).

The studies reviewed in this chapter highlight how play emerges from the conditions of children's lives and how children will seek out moments of playfulness, both fleeting and more sustained, in their desire to make life better and to be well (Lester, 2020). Children's playful appropriation of institutional and public space has been described as a disruption or repurposing of the intention for such spaces (Carroll *et al*., 2019; Conn, 2015; Pyyry and Tani, 2016; Russell and Stenning, 2022; Shearer and Walters, 2015). The many different ways that children play today that have emerged from the research raise a challenge to the often-cited view that children's play is in decline (Bergen, 2018; Borst, 2021; Brown, 2014; Gleave and Cole-Hamilton, 2012; Gray, 2011; Palmer, 2019). As has been shown, such a claim conflates change with decline and is also caught up in adult narratives of valuing some forms of play over others (Alexander *et al*., 2014; Lewis, 2017; Smith, 2010; Woodyer *et al*., 2016). In particular, there is concern over the decline in children's self-organised outdoor play, although some researchers caution against over-simplistic, over-romanticised and universal claims in this regard (for example, Horton and Kraftl, 2018a).

Macro-level, quantitative research does point to a decline in children's freedom of movement and their associated capability to play out in their neighbourhoods (Dodd *et al*., 2021; Gill, 2021; Larouche *et al*., 2017; Loebach and Gilliland, 2016a, 2016b; Malone and Rudner, 2016; Shaw *et al*., 2015). The most significant reductions in children's freedom of movement occurred between 1970 and 2000 (Shaw *et al*., 2012), over twenty years ago, and although there have been recent moves towards planning and designing for child-friendly environments, traffic, both moving and stationary, remains the biggest barrier to spatial justice for children and their capability to exercise everyday freedoms and to play out in their neighbourhoods (Aarts *et al*., 2012; Arup, 2017; Bourke, 2017; Ferguson, 2019; Frohlich and Collins, 2023; Russell *et al*., 2020; Shaw *et al*., 2015). In poorer communities and

for particular groups of children, neighbourhoods also present real dangers from other people (Barclay and Tawil, 2021; Beetham *et al.*, 2019; Dias and Whitaker, 2013; Gerlach *et al.*, 2019; Giles *et al.*, 2019; Goff *et al.*, 2014; Horton and Kraftl, 2018a, 2018b; Pinckney *et al.*, 2019; von Benzon, 2017; Witten *et al.*, 2019).

However, useful as they are, studies into the decline in children's everyday freedoms do not account for the myriad entangled influences on children's play patterns. The influences on children's play need to be understood in the context of the mesh of local socio-political and spatial conditions and powerful structural forces including globalised (late) capitalism and commercialisation, neoliberal education and austerity politics, poverty, racism, cishetero/sexism and an ableist culture, influences that repeatedly arise throughout this chapter. Children themselves, when asked, indicate a strong desire to play out (Brockman *et al.*, 2011; Children's Commissioner for England, 2021; Children's Commissioner for Wales, 2018; Dallimore, 2019; HAPPEN, 2018). Our review shows the complexities and nuanced entanglements of social, cultural, political and spatial barriers to outdoor play and attractions of indoor play (including also, the impossibility of setting indoor and outdoor up as binary opposites) that preclude one single isolatable cause. Nonetheless, it could perhaps be argued that relatively little effort has been made in respect of children's capabilities to play in the public realm compared to levels of financial investment in the commercial play, toy and digital play industry.

In sum, the capability to play out emerges from relations among sufficient environmental resources and the capability to access them. In seeking to work with such relationality of conditions, and returning to the policy perspective reviewed in chapter 2, the concept of play sufficiency may be useful as both a proxy and an organising principle for child-friendly environments, revealing much about how particular places work in respect of children's capability to play out. In particular, given the evidence reviewed in chapter 3, the capability to meet up and play outside regularly, from a young age and without the need for direct adult supervision or accompaniment, together with children's satisfaction with the quantity and quality of their opportunities for play, will contribute to children's overall capability to do and be well. Furthermore, many of the issues that need to be addressed in securing play sufficiency for all align with environmental concerns and other principles enshrined in the Welsh Government's Well-being of Future Generations (Wales) Act 2015.

Having reviewed the evidence accounting for the state of children's play today, the next chapter turns to adult responses aimed at supporting children's capability to play.

1.7 Supporting children's play (chapter 5)

As introduced in chapter 4, account-ability is about establishing multiple ways of accounting for children's capability to play. Response-ability is about adults developing the capability to respond effectively to the ways in which children use and move through their everyday environments and to keep these environments open to the possibility of the production of playful moments (Russell *et al.*, 2019). This is the focus for chapter 5, which reviews a range of responses in support of children's capability to play. The processes of account-ability and response-ability are entwined such that the prevailing forces that affect children's capability to play also affect how adults account for and respond to children's play.

The accounts of children's play patterns offered in chapter 4 highlight the complex and interrelated conditions that affect children's capability to find time, space and permission to play in the institutions of childhood (including the home), online and in the public realm. Children's desires and play cultures, adult imaginaries about the value of childhood and play, global and local flows and forces of capitalism, material-discursive practices, and the production of spaces, all these and more are entangled to produce irreducible conditions that are singular and contingent. This raises challenges for identifying universal patterns in how the spaces of childhood are produced and therefore how adults can work towards a more just distribution of spatial resources in favour of children (Lester, 2020). For this reason, much of chapter 5 offers specific examples of interventions in support of children's

spatial justice, either supporting their freedom of movement generally or play in particular. We do not repeat such examples in this summary, but outline instead the contexts in which interventions have been made and some of the principles that can be drawn from such examples.

From reviewing a range of initiatives, it is possible to discern a number of key narratives emerging in terms of advocacy and actions to support children's play:

- **Instrumental arguments** highlighting the relationship between play and learning (Candiracci *et al*., 2023; Real Play Coalition, 2020), physical activity and health (Ardelean *et al*., 2021; Bundy *et al*., 2017; Engelen *et al*., 2018; Frohlich and Collins, 2023; Gill, 2014a; Hyndman *et al*., 2014; Johansson *et al*., 2011; López *et al*., 2020; Moser *et al*., 2021; Mueller *et al*., 2020; Page *et al*., 2017; Tawil, 2017; Taylor *et al*., 2014), obesity reduction (Gill *et al*., 2019; Parrish *et al*., 2020), mental health (Gill, 2014a; Gill *et al*., 2019; The Means, 2016), community cohesion (Foster *et al*., 2014; Lee *et al*., 2015; Tawil and Barclay, 2020), environmental stewardship (Chawla, 2015; Dyment and Bell, 2008).

- **Romantic arguments** about loss of childhood innocence and contact with nature (Chawla, 2015; Derr and Lance, 2012; Nedovic and Morrissey, 2013; Verstrate and Karsten, 2016), sometimes alongside a demonising of technology (Charles and Louv, 2009, 2020; Edwards and Larson, 2020; Frumkin *et al*., 2017; Larson *et al*., 2019; Louv, 2005; Moss, 2012).

- **Rights-based arguments** about the right to play and spatial justice (Bornat, 2016; Bornat and Shaw, 2019; Caputo, 2020; Frohlich and Collins, 2023; GOSH, 2022; Lester and Russell, 2013a, 2014a; Lott, 2020; Patte and Brown, 2011; Russell *et al*., 2019, 2020; Save the Children, 2008; UN Committee on the Rights of the Child, 2013; UNICEF, 2009; Wood *et al*., 2019; Wragg, 2016).

- **Economic arguments**, including the social return on investment and attracting families back to cities through regeneration projects (Arup, 2017; Candiracci *et al*., 2023; Gill, 2014a, 2019, 2021; López *et al*., 2020; Matrix, 2010; Mueller *et al*., 2020; The Means, 2016).

- **Environmental arguments** that recognise the synergies between spatial justice for children and actions to reduce motorised traffic and to 'green' cities (Arup, 2017; Audrey and Batista-Ferrer, 2015; Bernard van Leer Foundation, 2019; Bornat, 2016, 2018; Candiracci *et al*., 2023; Create Streets Foundation, 2021; Gill, 2021; Hart and Parkhurst, 2011; Placemaking Wales, 2020; Royal Town Planning Insitute, 2021; Russell *et al*., 2020; Shaw *et al*., 2015; Tawil and Barclay, 2020).

Key actions and trends are summarised below, although there are significant differences at local level in terms of initiation and implementation processes and outcomes. However, in producing such a brief summary, the details of each singular example become hidden in generalisations.

- **The movement towards child-friendly cities and other urban settlements:** key actions include traffic calming measures and prioritising pedestrianisation, making streets fit for socialisation and play (Aldred and Goodman, 2020; Aldred *et al*., 2021; Bornat, 2016; Bornat and Shaw, 2019; Finn, 2022; Frago and Graziano, 2021; Gill, 2019, 2021; Goodman *et al*., 2021; Laverty *et al*., 2021; López *et al*., 2020; Mansfield and Couve, 2020; Welsh Government, 2021; Wright and Reardon, 2021; Zografos *et al*., 2020); improving opportunities for formal street play projects through the closure of residential streets (Cowman, 2017; D'Haese *et al*., 2015; Ferguson, 2019; Gill, 2015a, 2018, 2019; London Borough of Hackney, 2022; Page *et al*., 2017; Peritz, 2019; Playing Out, 2019, 2021; Stenning, 2023; Umstattd Meyer *et al*., 2019) and streets outside schools (8 80 Cities, 2022; Clarke, 2022; Gellatly and Marner, 2021; Mayor of London, 2022; Thomas *et al*., 2022); developing community gardens and intergenerational spaces (Arup, 2017; Create Streets Foundation, 2021; Living Streets, 2019; Loukaitou-Sideris *et al*., 2013; Stevens *et al*., 2022); improving and increasing the availability of playable space (Arup, 2017; Corkery and Bishop, 2020; Gill, 2018, 2021; Krysiak, 2019; Royal Town Planning Institute, 2021; Riches and Hawley, 2019; Russell *et al*., 2020; Wilson, 2018; Woolley *et al*., 2020); reactivating wilderness spaces and affordances for playful encounters such as public art (Arup, 2017); a focus on multifunctional green

infrastructure such as stormwater parks (Buckley *et al.*, 2017; Global Designing Cities Initiative, 2016; Newell *et al.*, 2013); playful cultural and heritage sites (Chester Zoo, 2022; Derry, 2021; Dickerson and Derry, 2021; Jennings, 2016; Kinney and Smith, 2021; Lester *et al.*, 2014; Tawil and Barclay, 2018); multi-use community spaces (Arup, 2017; Bornat and Shaw, 2019; Krysiak, 2019; López *et al.*, 2020; Studio Ludo, 2017; Wilson, 2018); and supporting an increased sense of ownership through opportunities for co-creation (Corkery and Bishop, 2020; Ferguson, 2019; Kreutz, 2020; Loebach, 2020; López *et al.*, 2020; Royal Town Planning Institute, 2021; Woolley *et al.*, 2020). Also recommended is supporting children to carry out neighbourhood mapping research to gain insights into the opportunities and barriers they experience (Arup, 2017; Bernard van Leer Foundation, 2019; Brown *et al.*, 2019; Danenberg *et al.*, 2018; Gill, 2021; Khan *et al.*, 2022; Krysiak, 2019; Real Play Coalition, 2020; Shaw *et al.*, 2015).

- **Recognising children in planning policy and the principle of placemaking:** generally, children are invisible in national planning policy and guidance, although Wales was identified as currently offering the best support for child friendly planning approaches (Wood *et al.*, 2019). Due to the overarching Well-Being of Future Generations (Wales) Act 2015, planning policy in Wales is orientated towards improving wellbeing through the principle of 'placemaking', with the Play Sufficiency Duty acknowledged as a complementary tool in this process (Wood *et al.*, 2019).

- **Changes in playground design,** particularly the move towards more natural, irregular features that allow for risk-taking and non-prescribed manipulation (including the concept of loose parts) (Murnaghan, 2019; Shackell *et al.*, 2008; Studio Ludo, 2017; Verstrate and Karsten, 2016; Voce, 2015a) and moves towards inclusion through universal design (Lynch *et al.*, 2020; UN Committee on the Rights of the Child, 2013).

- **Building of advocacy networks across professional domains,** for example playworkers, children's services, transport activists, planners, sustainable urban designers and architects, landscape architects, environmentalists, health professionals and cultural institutions (Lester and Russell, 2013a, 2014a; Russell *et al.*, 2019, 2020).

- **Co-producing spaces for play:** beyond physical design, children's capability to play is also affected by the actions of people. Often, physical changes alone struggle to effect change without some form of complementary activation (Gill, 2021; Royal Town Planning Institute, 2021). Working ethically with children as change agents is crucial to effective change at both policy and neighbourhood level (Bornat, 2016; Bornat and Shaw, 2019; Brown *et al.*, 2019; Corkery and Bishop, 2020; Gill, 2021; Khan *et al.*, 2022; Loebach, 2020). In Wales, those with playwork backgrounds and/or remits have often been the instigators or enablers for actions in support of the Play Sufficiency Duty (Russell *et al.*, 2020).

- **Playwork provision:** the austerity agenda has led to severe cuts in playwork services generally and provision in particular (Brown and Wragg, 2018; Children's Rights Alliance England, 2015; Gill, 2015b; McKendrick *et al.*, 2015; Voce, 2015b, 2021). This has positioned playwork, as a non-statutory public service with limited recognition and power, as precarious and vulnerable to cuts, and has led to playworkers diversifying what they can offer to raise funds (Cullen and Johnston, 2018; Roraburgh, 2019; Shaw, 2023). More broadly, playworkers have also been responsive in diverse ways to the impact of austerity on the children and families with whom they work, and particularly so through the COVID-19 pandemic (King, 2021), including regularly feeding children, often funded in school holidays through government programmes (Geary *et al.*, 2019).

1.8 Returning to a relational capability approach: closing thoughts on adults' response-ability for children's play

This review considers a selection of the literature spanning childhood studies and policy for children (chapter 2), the role of play in children's wellbeing (chapter 3), the patterns of children's play today (chapter 4), and adult responses to supporting children's play (chapter 5). In this final section, we revisit the idea of a relational capability approach to thinking about the relationship between playing, doing and being well. Following this, we revisit the twin processes of account-ability and response-ability and analyse these through Amin's (Amin, 2006: this model has been used in the four studies into the Play Sufficiency Duty) four registers of a good city to draw conclusions about adults' response-ability, through both policy and practice, to work towards producing the conditions that support children's capability to play.

1.8.1 A relational capability approach to playing and being well

In chapter 2 we put forward the idea of a relational capability approach to thinking about the relationship between children's play, their wellbeing and broader political agendas, particularly the Welsh Government's Well-being of Future Generations (Wales) Act 2015. The capability approach has been explored by a growing number of children's wellbeing researchers (for example, Biggeri *et al*., 2011; Camfield and Tafere, 2011; Domínguez-Serrano *et al*., 2019; Kellock and Lawthom, 2011; Schweiger, 2016), drawing on the works of philosopher-economist Amartya Sen and philosopher Martha Nussbaum.

Capabilities are partly about the existence of the resources, opportunities and freedoms for people to be able to be and do what is of value to them. The other part of capabilities refers to whether people can 'convert' the resources and opportunities available into 'functionings' (people *actually* do and are the things they value) across personal, social and environmental factors (Robeyns, 2017). A key criticism of this approach has been its emphasis on individual freedom and rational choice (Fattore and Mason, 2017). Throughout this review, we have worked with contemporary ideas from childhood and wellbeing studies that puts forward a more relational perspective, recognising that play and wellbeing do not reside inside the bodies and minds of individual children but emerge both from and as the entanglements of bodies, space, material objects, desires, histories and much more (Andrews *et al*., 2014; Coffey, 2020; Lester 2020).

Given this, we proposed a relational capability approach that pays attention to the 'material and discursive entanglements that render children capable' (Murris, 2019, p. 56). Such a proposal has the potential to work with both a rights-based (intrinsic) and a social investment (instrumental) policy understanding of both play and wellbeing, whilst also recognising the powerful forces of neoliberalism described in chapter 2 and elsewhere throughout the review.

Chapter 3 highlights how much of the contemporary research into playing and being well emphasises the entanglements of mind, body, senses, affect, movement and *milieu* (the physical, social, economic and political environments that children inhabit and also affect). This is the case with research from evolutionary studies, neuroscience, (post)developmental psychology, sociology, anthropology, geography, philosophy and more.

The biological process of homeostasis (an automatic response to the assemblage of mind-body-senses-environment conditions) means that children constantly seek out ways of feeling better, often through playing (Damasio, 2018; Lester, 2020). When children can participate fully in playing, the pleasure this gives rise to is central to wellbeing, health and adaptiveness, both for the time of playing and beyond (Burgdorf *et al*., 2017; Coffey *et al*., 2015; Fredrickson, 2013; Granic *et al*., 2014; Panksepp, 2010, 2016; Tugade *et al*., 2021). This statement is more than the truism that play is fun. Children's engagement may be serious and engrossed

(Henricks, 2015; McDonnell, 2019), or even harmful (Sicart, 2014; Sutton-Smith, 2017). Sometimes, those involved in games are mistreated to the extent that the experience is not good for them (Bryan, 2019, 2020, 2021; Cook, 2019; Göncü and Vadeboncoeur, 2015; Grieshaber and McArdle, 2010; Kinard *et al*., 2021; McDonnell, 2019; Saltmarsh and Lee, 2021; Sutton-Smith, 2017; Trammell, 2020, 2023). Playing is not exclusively a force for good, depending on the conditions from which it emerges. This is why we talk about playing well: when children can play well, life is better for that moment. Playing well, however, is not only a matter of personal responsibility or skill. The pleasure of playing well motivates children to seek out more playing (di Domenico and Ryan, 2017; Trezza *et al*., 2019). It also releases neurotrophins that can have more lasting protection against depression (Panksepp, 2010, 2012, 2016; Panksepp *et al*., 2019).

The pleasure of playing arises from experiencing the vitality of emotions such as fear, anger, disgust and surprise and overcoming them, for example through pretend play, rough and tumble play, risk-taking, rude rhymes, horror stories, video games and generally mucking about (Eberle, 2014; Granic *et al*., 2014; Panksepp, 2010, 2016; Panksepp and Panksepp, 2013; Panksepp *et al*., 2012; Pellis and Pellis, 2017; Pellis *et al*., 2014; Sharpe, 2019; Sutton-Smith, 2017; Vanderschuren and Trezza, 2014). Such forms of playing help to prime neural networks to respond flexibly and creatively to novel situations without over-reacting, learning how to deal emotionally with being surprised or temporarily out of control (Andersen *et al*., 2022; Gray, 2019; Kellman and Radwan, 2022; Pellis *et al*., 2014; Pellis *et al*., 2018; Sgro and Mychasiuk, 2020; Siviy, 2016; Vandervert, 2017). In this way, play's entangled embodied, sensual, dynamic and affective dimensions can add to its vitality and contribute to physical health and strength, emotion regulation and healthy stress response systems.

Alongside this, playing well also provides the relational context for developing healthy attachment systems to:

- caregivers (through early forms of play such as peek-a-boo and tickling) (Bergen *et al*., 2016; Gordon, 2015; Gorrese, 2016; Gorrese and Ruggieri, 2012; Jackson and McGlone, 2020; Masten, 2014; McGinley and Evans, 2020; Panksepp, 2010)

- friends (characterised by conflicts as well as affective solidarity and support) (Bagwell and Schmidt, 2013; Beazidou and Botsoglou, 2016; Brogaard-Clausen and Robson, 2019; Carter and Nutbrown, 2016; Del Giudice, 2015; Fattore and Mason, 2017; Holder and Coleman, 2015; Offer and Schneider, 2007; Petrina *et al*., 2014; Stenning, 2020; Weller and Bruegel, 2009; Wells, 2011; Wood *et al*., 2013)

- other non-human animals (Christian *et al*., 2020; Dueñas *et al*., 2021; Moore and Lynch, 2018; O'Haire *et al*., 2015; Rautio, 2013b; Tipper, 2011)

- place (Bartos, 2013; Bauer *et al*., 2022; Bourke, 2017; Jack, 2015, 2016; Jansson *et al*., 2016; Kearns *et al*., 2016; Koller and Farley, 2019; Long *et al*., 2014; Malone, 2013, 2015; Wales *et al*., 2021; Weir *et al*., 2022; Witten *et al*., 2019),

contributing to a sense of security and belonging and the sense for children of being able to affect their own lives and the lives of others.

All this means that, when conditions are right, **children can create their own wellbeing**. This presents a strong ethical, moral, economic and social argument for adults to work towards producing those conditions through both policies and practices. If playing is seen as one of the ten central human capabilities (for all ages), as it is in Nussbaum's list of core capabilities (Nussbaum, 2007), then a relational capability approach to wellbeing would need to pay attention to the spatial, temporal and affective conditions that support the resources, opportunities, freedoms and capability to play. Such attention can be developed through the twin processes of account-ability (accounting for children's *capability* to find time and space for playing) and response-ability (responsiveness in terms of rethinking habits and routines to enhance children's *capability* to play).

1.8.2 A model for considering response-ability for children's play: Amin's four registers

Here we offer a model that can be useful in making sense of the complex interrelationships between space, power, a relational capability approach to children's right to play and the twin processes of account-ability and response-ability. The model draws on the work of geographer Ash Amin's (Amin, 2006) ideas on what constitutes a 'good city', identifying four registers that can work together to create environments that are more open to children's play. This framework has been a core feature of research into the Play Sufficiency Duty for the past decade (Lester and Russell, 2013a, 2014a; Russell *et al.*, 2019, 2020) and can serve to underscore the relational capability approach promoted throughout this review.

We briefly introduce these concepts here to describe the range of ways efforts to support children's capability to play operate across the strategic and the practical.

Repair and maintenance

The repair and maintenance register incorporates the work that needs to be done to protect and maintain the times and spaces currently available for children's play and to make reparations for spatial injustices for diverse children. Some of this is as basic as maintaining children's playgrounds in a good state of repair. Much of it is in appreciating broader spatial injustices that remove children from the public realm and working to repair those injustices. Beyond this, the register also applies to the domains of policy development and implementation; strategic partnerships; and a range of forms of knowledge exchange practices including research, advocacy, education and training.

Rights

For Amin, rights are held in common rather than individually. The rights register incorporates approaches that respect children's participation as citizens, including their right to play alongside other rights of freedom of thought, freedom of expression, freedom of association and peaceful assembly (gathering together), and freedom to participate in the public realm. It also acknowledges the personal, social and environmental factors that support or constrain children's capability to convert resources and opportunities into functionings (Owen *et al.*, 2021). Much of adult response-ability for this register is in terms of advocacy, linking it closely to the register of relatedness. Advocacy can operate through influencing strategy and through direct activation work with children and communities at neighbourhood level.

Relatedness

Given the focus on relatedness in contemporary research in childhood and play studies and in wellbeing, and given that this review argues for a relational capability approach to play and wellbeing, this register becomes particularly pertinent. Working in this register involves acknowledging interrelatedness and the value of working with difference. One such difference is the ways that different children experience space. At strategic level it involves building cross-professional networks and partnerships, whilst at neighbourhood level it requires fostering relationships with communities, families and local businesses.

Re-enchantment

This register is mostly about reconnecting adults with the joy of playing and recognising how children's environments can support the moments of vitality that playing produces, whilst avoiding over-romanticising play.

1.8.3 Bringing the ideas together with research reviewed

Amin's four registers for a good city (repair, rights, relatedness and re-enchantment) also need to be considered relationally rather than as discrete categories for reviewing adult response-ability for children's capability to play. As such, **relatedness** can be seen in the broadening out of adult support for play from designated play provision (which could, arguably, include toys and digital games) to include children's capability to play out in the public realm (Arup, 2017; Bornat, 2016, 2018; Bornat and Shaw, 2019; Gill, 2021; Jansson *et al.*, 2022). Our review highlights that one, if not the, major constraint on children's capability to play out comes from traffic, either moving or stationary. This offers increasing synergies between play advocacy and the political agenda for environmental sustainability, including active travel, low traffic neighbourhoods and greening the built environment. **Relatedness** is also evident in the ways that play advocates and policy makers are increasingly working cross-professionally with those working in planning, highways, housing, parks and open spaces, green infrastructure, education and more. This is particularly apparent in Wales given the requirement to do so in the Play Sufficiency Duty, a feature of the duty that has been described as one of its biggest successes (Russell *et al.*, 2019, 2020). Equally, response-ability for children's capability to play works in tandem with developing an account-ability for children's satisfaction with their opportunities to play. This too can be developed both through networking and professional development and also through ethical research with children to map their neighbourhoods. In addition, facilitating play in a range of settings including schools, hospitals, prisons and cultural institutions further contributes to **relatedness**.

In terms of **repair** (and maintenance), play advocates have had a significant influence, particularly in Wales, across multiple and interrelated scales including national and local policy and strategy, engaging with adults while supporting playing in the public realm, and the broader community work of playworkers working in play provision, each of which affects the other (Russell *et al.*, 2023). Such advocacy work operates across all four registers.

The austerity agenda has had a big impact both on play and playwork services and the infrastructure to support this. Attempts to **repair** the effects of such cuts at service level have included diversification of services and roles, both in attempts to generate income and also to work more closely with families struggling because of austerity measures, particularly through feeding children. At policy level, national government efforts to mitigate the worst effects of austerity and the cost-of-living crisis can work productively with the play sector, as has been the case, for example, in Welsh Government funding for play services to both build back after the pandemic and to feed children in the school holidays through the Summer of Fun and Holiday Hunger Playworks programmes.

Repair can also be seen through the reparations made in the physical infrastructure of urban environments, many of which have been implemented through broader sustainability policy agendas. Yet, although physical changes can alter everyday spatial practices (such as removing traffic), children's capability to play out also depends on such changes being sensitive to local context and histories (Pérez del Pulgar *et al.*, 2020) and often also needs changes to the social production of space through activation (Placemaking Wales, 2020).

Such activation can be provided by playworkers and other play advocates who can appreciate forms of children's playfulness often obscured in over-simplified, individual and instrumental understandings of play's value, including children's ingenuity, nonsense and more taboo forms of playing.[15] In identifying play as a core human capability, Nussbaum specifically mentions the value of laughter. In chapter 3, we review neuroscientific studies of play that highlight the importance of the joy of playing and its role in preventing depression (Panksepp, 2008, 2010, 2015; Sgro and Mychasiuk, 2020). Equally, studies of children's play cultures show its capacity for nonsense, sophisticated subversion and imagining the world anew (Corsaro, 2020; Koch, 2018; Lester, 2020).

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[15] See chapter 3, section 3.9.4 and Koch, 2018; Lester, 2020; Marsh and Bishop, 2013; Rosen, 2015a, 2015b; Russell, 2018; Sutton-Smith, 2017.

What happens when play advocates work with other adults to bring these forms of playfulness to light, either through encouragement to pay attention to children or through sharing their own memories of play as a child, is that they become animated and begin to smile (Dickerson and Derry, 2021; Russell *et al*., 2020; Russell *et al*., 2023). These are powerful engagements that surface a **re-enchantment** with play, although it is important not to over-romanticise them. Such engagements can counter the forces of contemporary disenchantment with childhood evident in the negatively-valanced – and very real – concerns about obesity, mental health, crime and more (Lester, 2020, and as outlined in chapter 2). Enchanting adults through reconnecting them to the vitality, thrill, pleasure and nonsense that playing can offer is often an effective and affective way of showing that playing is how children help themselves to be well.

Running through all this is Amin's register of **rights**. As with many theories of wellbeing and play, rights are often conceived as being possessed by individual rights-holders. In Amin's vision, a good city is a 'socially just city, with strong obligations towards those marginalised' (Amin, 2006, p. 1015). Rights refers to more than access to resources and services and also includes the right to participate in the production of public spaces (Carroll *et al*., 2019; Pyyry and Tani, 2016; Russell, 2020). Such a view makes possible a **relational** perspective on rights that can sit alongside a relational capability approach to children's wellbeing through adult account-ability and response-ability.

Bringing all these ideas and the literature reviewed together and to summarise, we suggest that a relational capability approach to children's wellbeing requires paying attention to the spatial, temporal and affective conditions that support children's capability to play. The twin processes of account-ability and response-ability, together with Amin's four registers of repair, relatedness, rights and re-enchantment offer a framework for doing this that can embrace the interrelatedness of policies, practices, diverse children, communities, the built environment, environmental sustainability, economies and more across multiple scales. The evidence contained within this review provides a strong argument that working towards the production of such conditions has an ethical, moral, social, environmental and economic basis. Children's capability to play is of political importance for both its intrinsic value (as a social justice issue) and because of its instrumental value in terms of its contribution to the wellbeing of children and communities and its connections with sustainable development. Supporting children's capability to play is therefore in line with both the Welsh Government's rights-based, social democratic policies for children and other broader policies, including the over-arching Well-being of Future Generations (Wales) Act 2015.

Chapter 2

Contextualising and framing the review

2.1 Introduction

In reviewing contemporary research into children's play, it is useful to begin with a brief contextualisation that considers the breadth and depth of diversity of scholarship on two closely associated topics: childhood and policy. Our review of these topics also highlights the assumptions made about children, play and the production of knowledge itself. Because play permeates all aspects of life, it has been studied by many different academic and professional disciplines, each with their own traditions, premises and paradigms. As Henricks (2017, pp. 7-8) says:

'Most play scholars, it must be acknowledged, approach the subject in specialized ways. Some understand themselves, at least primarily, to be theorists, who generate ideas about play's character and implications. Others are empiricists, who observe real people – and animals – at play, offer conclusions about what they have seen. Still others are practitioners and advocates, change-makers who proclaim the benefits of play, support certain kinds of this in schools and communities, and push forward policies that honor everyone's right to play.'

These approaches to studying play, discussed in more detail in chapter 3, produce different forms and modes of knowledge that can develop within their own spheres of influence and can become self-referential. That is, disciplinary research and professional understandings of childhood and play build on what has come before in ways that mean foundational concepts can become accepted truths. In terms of studying childhood more broadly, Punch (2016, p. 352) notes that 'there is a persistent gap/tension between the discourse of childhood studies and arenas of practice and policy'.

Knowledge is never a neutral affair, it is always situated, always imbued with questions of power, and so is always an ethical matter. Using a specific lens to study childhood and children's play means excluding other ways of seeing, and not all ways of knowing are equal. May (2011, p. 38) notes that 'If a certain type of knowledge predominates in a society, this is … due to the power that certain groups have to define what is right or wrong, or true or false'. Scholars outside of dominant cultures, narratives and networks can be side-lined or ignored (Konstantin and Emejulu, 2017; Rudolph, 2017).

Additionally, knowledge production is *performative*, that is, research agendas, the selection and omission of research questions, assumptions, methods and so on produce forms of knowledge that affect the world, to varying degrees. Narratives, paradigms and understandings produce material-discursive practices[16] that affect adults' relationships with children across all areas of life including family life, the public realm, the cultural sector, education, health, leisure, policy and law. It is this that makes knowledge production a matter of ethics (Spyrou *et al.*, 2019).

This chapter offers a critical review of the ways that childhood has been studied, followed by a review of the research on children and play in social policy. In doing so, this chapter provides context for the review of literature on children's play across many disciplines and research methodologies, clarifying from the start the impossibility – indeed the undesirability – of a single truth about children's play that can be asserted as 'evidence' and used to inform policy and practice. Instead, it aims to show the value of appreciating multiple ways of knowing, of

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[16] '"Material-discursive" is a term … from the work of Karen Barad (2007) and refers to the dynamic and ongoing entanglements of meanings, language, practices, matter and so on, in ways that produce "common-sense" understandings and practices. Ideas and language do not exist separately from everyday practices and relations; thus, dominant narratives have powerful effects on the way we live our lives and relate to each other' (Lester, 2020, p. 39).

accepting that there will always be a different perspective and of acknowledging that the way we think affects what we do in supporting children's play.

2.2 Studying childhood(s)

This section offers a review of approaches to studying childhood and children, including critiques of these approaches. It opens with a discussion on 'developmentalism' as a consistently dominant narrative in theories of childhood. It then reviews the broad field of social studies of childhood that emerged in the second half of the twentieth century as a challenge to the dominance of developmental psychology in childhood studies. Following this, a third, 'new wave' of childhood studies is reviewed, together with key concepts that sought to address the critiques of both developmentalism and the social studies of childhood to consider more relational modes of thinking about the world. The section ends with a consideration of the literature on ways of theorising power, inequality and different childhoods.

Adult understandings of childhood, and therefore of children's play, are mired in the ethics of knowledge production described above. Different disciplinary perspectives each offer their own partial view of childhood, with sometimes polarised and contradictory views. Although there have been calls for inter-disciplinary research into childhood, most studies and theories remain stubbornly fixed in singular disciplines (Alanen, 2012; Prout, 2011; Punch and Tisdall, 2012). Some disciplines have more power and influence regarding policy, professional and everyday practices than others. Given this, perhaps we should be 'modest in laying claims to speak on the subject with any degree of authority' (Smith, 2010, p. 197).

Since most researchers and publishers tend to be adults, they will, inevitably, bring adult perspectives and adult power to studies of childhood (Woodhead, 2015). Even when working with children as researchers there are always power relations to be taken into consideration both in the research process itself and in the value attached to it (Cheney, 2019; Cuevas-Parra and Tisdall, 2019; Kirk, 2007; Powell *et al*., 2012). In addition, much research into childhood has its origins in and builds on ideas from minority world perspectives; many have shown how this understanding of the nature and value of childhood has permeated not only scholarship but also policy and practices (for example, Balagopalan, 2019; Cheney, 2019; de Castro, 2020; Punch and Tisdall, 2012). In addition, as Taylor (2011, p. 420) suggests 'the concept of childhood is more about adult imaginaries, and our own political and moral agendas, than it is about children themselves'. Cunningham (2006, p. 12) goes so far as to argue that childhood is an invention created by adult imaginings 'in order to make sense of their own world', with children having to live with the consequences. We offer this as a starting point of humility.

It is tempting to describe changes in approaches to studying childhood in a chronological manner, indeed some have done so. For example, Aitken (2018b) sees three phases of children's geographies through developmental and environmental psychology to a focus on identity and rights, and then to a 'postchild', relational perspective. Parallel shifts have been identified more broadly, with the individual focus of developmental psychology seen as a first wave, social constructionism and the 'new' social studies of childhood as the second, and relational, non-representational approaches as the third (for example, Holmberg, 2018; Murris, 2016a). These terms and concepts are explored further in what follows.

However, a chronological framework is problematic for several reasons. To begin with, there is no single and sequential linearity (Moran-Ellis, 2010): although certain key historical moments might be identifiable, a diversity of theorisations have meandered along many different and sometimes intertwining paths (Prout, 2007; Ryan, 2011, 2014a). Also, earlier theorisations have not disappeared or been replaced by what has come after. Rather, they have evolved (Jones, 2019), and, in some cases, attempted to work across disciplinary borders and towards interdisciplinary (Alanen, 2012; James, 2010; Punch, 2016; Woodhead, 2015) or hybrid studies (Kraftl, 2013;

Lee and Motzkau, 2011; Prout, 2011); however, such attempts have not been without challenges. In addition, particular perspectives remain more influential than others (de Castro, 2020; Knight, 2019; Tisdall and Punch, 2012; Watson, 2020) in policy, professional practices and everyday understandings if not in academic research. Nevertheless, for ease of presentation, the three broad 'waves' of childhood studies have been used to structure the rest of this section.

2.2.1 Developmentalism

A particularly dominant and powerful perspective is what is often termed 'developmentalism'. It is explored here as it is a narrative that has salience for the study of children's play and its relation to policy and professional practice. 'Developmentalism' in this context refers to the dominance of an over-simplified application of theories of ages and stages of child development, particularly cognitive development, that has become fixed and normative, creating constructs that shape professional narratives such as 'developmental delay' (Gabriel, 2020; Goodley *et al.*, 2020; Grech, 2021; Wood, 2020) and 'developmentally appropriate practice' (Dyer, 2017; Lewis, 2016; Murris, 2019; Sanders and Farago, 2018; Shallwani, 2010; Wood, 2020). Wood (2020, p. 324) notes that

'problems arise when the scientific rationale of child development theories meets ideologically framed policy logic in order to create curriculum norms and standards against which children are positioned as typical or atypical, normal or abnormal, in credit or in deficit, often with insufficient attention to difference and diversities.'

Chronological age has become a seemingly natural and universal measure of how children are defined, originating in developmental psychology and more recently evident in neuroscience (Tisdall, 2022). Although professional literature (particularly early years) promotes the importance of individual, cultural and social contexts (Gregg, 2016) and of the 'unique' child (Wood, 2020), the material-discursive practices of developmentalism embed inequalities and 'other'[17] those who do not conform across intersections of race, culture, gender, class, dis/ability, sexuality and more (Dyer, 2017; Goodfellow and Burman, 2019; Goodley and Runswick-Cole, 2012; Gregg, 2011; Shallwani, 2010; Wood, 2020).

Perhaps developmentalism's most obvious manifestation is how children in education are organised in age groups and how their progress is assessed according to predetermined universal milestones (Gabriel, 2021). Such a perspective sees the main task of childhood as being to develop into a producing and consuming adult, situating children on 'a developmental pathway leading from immaturity to maturity, from learning to laboring' (Lewis, 2016, p. 80; see also Burman, 2013; Einboden *et al.*, 2013), erasing the experiences of those children who engage in either paid or unpaid labour (Abebe and Waters, 2016; Aitken, 2018a; Bourdillon, 2014).

Developmentalism is also pervasive in the United Nations Convention of the Rights of the Child (UNCRC) (Arce, 2015), for example in:

• Article 6 (the right to survive and develop)

• Article 12 (the right to express views in line with age and maturity)

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[17] 'Othering' is a term used to describe the act of positioning those who do not fit the norm as different, often inferior or deficient in some way. It is embedded in systems, language and professional practices often in ways that are so pervasive that they are almost invisible unless actively pointed out.

- Article 27 (the right to a standard of living necessary for full development)

- Article 29 (the right to an education directed towards child development in the round)

- Article 32 (the right to be protected from exploitation or work that may interfere with the child's education or development).

Arce (2015, p. 316) argues that 'the idea of … children enjoying their rights on an equal (not different) footing with adults, directly challenges the idea of the developing child enshrined by psycho-legalism or *legal developmentalism*' (emphasis in the original).

Woodhead (2015) suggests that developmentalism can and should be differentiated from developmental psychology research more broadly. Many have argued that the nuances and complexities in the work of foundational developmental theorists such as Piaget and Vygotsky have been misrepresented in some forms of application and critique, and that some fields of developmental research have built on broader perspectives to move beyond decontextualised prescriptive norms (Burman, 2019; Fleer, 2010; Fleer, Rey and Jones, 2020; Gabriel, 2021; Prout, 2007; Tatlow-Golden and Montgomery, 2021; Tisdall and Punch, 2012; Woodhead, 2015). There have also been significant critiques from within the field of developmental psychology that highlight how the narratives of development are influenced by broader political and societal dynamics (Motzkau, 2009).[18]

The focus on the developing child can be traced back to the Child Study movement of the late nineteenth and early twentieth century, initiated by the work of Charles Darwin and other evolutionary theorists such as G. Stanley Hall, whose recapitulation theory posited that ontogeny (development of the individual human) mirrored phylogeny (human evolution) (Gabriel, 2021; Prout, 2007). Such a focus on development is embedded in broader linear and temporal understandings of development and progress prevalent at the time (mid-nineteenth to mid-twentieth century) that were used to justify hierarchies of power inherent in colonialism, racism and other categories of difference (Garrison, 2008; Knight, 2019; Malik, 2019; Owen, 2020; Varga, 2020), and that continue today in the material-discursive practices of both international development and child development (Abebe, 2019; Aitken, 2018a; Burman, 2017, 2018; Hanson *et al.*, 2018; Tisdall and Punch, 2012). There are inherent contradictions in this hierarchy (Garrison, 2008). On the one hand, the idea of the 'noble savage' suggested that a 'natural' state was one where indigenous groups and also children were uncorrupted by the ills of modern society and therefore needed protection from those ills. On the other, prevailing hierarchies and the imperative of capital (understood as wealth used to create more wealth), imposed and continue to impose normative and linear ideals of development both at home and abroad, 'such as the abiding concern of nineteenth and twentieth century social policy with how to handle the "troublesome classes", and "the subjects of imperial rule"' (Prout, 2007, p. 25, see also Burman, 2018).

In the early to mid-twentieth century, large scale paediatric child development surveys, together with laboratory-based psychological studies and tests, measured children, defining what was universally 'normal' and therefore what was 'abnormal' and in need of professional intervention (Lewis, 2016; Prout, 2007; Rose, 2008). It is the claims to universality, objectivity and causal linearity made in these studies that have been heavily critiqued, together with their significant influence on policy and professional practice (for example, Burman, 2011, 2017),

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[18] These critical approaches to developmental psychology and child development are revisited in section 2.3.7, as they draw on many of the ideas covered in other research reviewed throughout the chapter.

perhaps obscuring more ecological and relational approaches within critical and cultural psychology studies (Burman, 2019; Fleer, 2010; Fleer, Rey and Jones, 2020; Gabriel, 2021; Nikita-den Bensen, 2008; Prout, 2007). Although 'developmentalism' focuses mostly on developmental psychology, it should also be noted that early functionalist sociological theories of childhood, most notably Talcott Parsons, also saw childhood as a time of socialisation into the norms of society (Lee and Motzkau, 2011; Tisdall, 2012). Both perspectives have become so heavily embedded in everyday understandings and practices that it is difficult to think beyond them:

'This pervasive and all-encompassing paradigm of childhood assumes the nature of common sense and is continuously reproduced through everyday practices, technologies, materials and symbols; it is engrained into daily habits, routines, and relationships and through this process assumes the mantle of rightness' (Lester and Russell, 2013, p. 42).

2.2.2 The social studies of childhood and its critics

The second half of the twentieth century saw the emergence of what was termed a 'new paradigm' for the social studies of childhood (Hammersley, 2016; Holmberg, 2018; James, Jenks and Prout, 1998; James and Prout, 1997; Prout, 2011). The newness was presented in terms of its difference from how childhood had been researched and understood until that point. Rather than laboratory-based research on the future focus of child development and socialisation, children were seen as citizens in their own right and their everyday lives as worthy of study in the here and now. The naturally developing child was seen as one social construction of childhood[19] alongside other constructions such as the evil child and innocent child. Rather than passive objects of socialisation and development, children were seen as active agents in their own lives.

The universal 'ideal' child was rejected in favour of the idea of a 'multiplicity of childhoods, which are diverse, fluid and attentive to the social categories of gender, ethnicity and dis/ability among children and their experiences' (Graham, 2011, p. 1535). These ideas emerged alongside changes in the international and UK policy landscape that offered up (albeit limited) opportunities for understanding children as citizens in their own right (Williams, 2013) and for arguing for their participation. Key to this was the ratification of the UNCRC and the Children Act 1989 (Moran-Ellis, 2010). However, the extent of children's right to participate was still set against adult judgments of competence and the best interests of the child, and theorised within the narrow confines of the UNCRC (Arce, 2015).

Smith (2011, 2014) suggests that Jenks' (2005) constructions of the Dionysian child (that children are born wicked and in need of strict discipline) and the later Romantic era Apollonian child (that children are born innocent, and it is society that corrupts them) still co-exist alongside a third construction, that of the Athenian child. This is the rise of the 'participative', agentic child-citizen, evident in both children's rights discourses and also pedagogies and child-rearing styles that promote the self-governing and self-regulating child responsible for making the right choices. It is also based on a minority world, white, middle class ideal child, rendering 'other' childhoods problematic (Diaz-Diaz, 2022).

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[19] The 'social construction of childhood' refers to the belief that ideas about childhood and children are constructed by society rather than being biologically natural.

The umbrella of social studies of childhood included researchers from sociology, anthropology, geography, education, law, policy and other disciplines. As the field developed, so critical perspectives emerged, both from within and outside it. Acknowledging the value of the key tenets and work done, scholars began also to problematise them, suggesting that the field may need to rethink some of the core concepts, but not abandon them. 'The concern is rather with establishing the limits of what we have inherited from the past so that new and potentially more productive ways of knowledge production may come into being' (Spyrou, 2018, p. 420).

One critique is the claim that there was actually not much that was 'new', and so the assertion that this was a paradigm shift was overstated (Ryan, 2008; Tisdall and Punch, 2012). Another is that some of the criticisms of previous 'developmentalist' research were exaggerated or misleading (Hammersley, 2016). A third is that the key concepts needed further work beyond proclamation and research into children's everyday lives (Tisdall and Punch, 2012). A fourth critique was that despite decades of studying children's lives in their own right, the ideas have struggled to be fully integrated into policy and practice and into mainstream academia (Cheney, 2019; Moss, 2017; Punch, 2016); with suggestions that perhaps the 'new' studies had got 'stuck' (Alanen, 2019; Punch, 2020; Spyrou *et al*., 2019). Perhaps the most significant critique, however, was that the social studies of childhood perpetuated a range of dualisms and particularly, in dismissing ideas about child development, the separation of the biological and the social in children's lives (Kraftl and Horton, 2019; Lee and Motzkau, 2011; Prout, 2011; Ryan, 2011).

A number of critiques, particularly from UK authors, address the central place of agency in the social studies of childhood, that is, the idea that children are active players in their lives and not just passive objects of development, socialisation or the experiments of researchers. This is explored in more detail below.

Children's agency

Linked closely to the promotion of children's rights (Holloway *et al*., 2019), it is understandable that endowing children with agency could be seen as a step in the right direction, 'giving voices and visibility to a group in society that for centuries has been silenced, only on the basis of age as a discriminatory classification' (Vandenbroeck and Bouverne-De Bie, 2006, p. 127). However, several scholars note that there has been little scrutiny of agency as a concept (Hammersley, 2016; Prout, 2011; Spyrou *et al*., 2019). Subsuming the concept of agency into the idea of children as competent social actors has flattened it. The effects of this include obscuring more nuanced complexities of different forms of agency and its relationality, precluding discussions on whether agency is always a force for good, and overlooking what the concept performs (Gallagher, 2019; Holloway *et al*., 2019). However, there is also a significant body of work that seeks to address this and offer ways to rethink it as a concept (Gallagher, 2019; Holloway *et al*., 2019; Mühlbacher and Sutterlüty, 2019; Valentine, 2011; Vanderbeck, 2008). Foregrounding children's agency can, for example, obscure legal debates about children's competence and their rights (Mitchell and Elwood, 2012; Vanderbeck, 2008). Additionally, decontextualising 'the child' by advocating a romanticised agency can downplay powerful forces of subordination and structural inequalities (Mitchell and Elwood, 2012; Spyrou *et al*., 2019), including how children's own agency might perpetuate privilege and oppression (Tisdall and Punch, 2012). Fixing an agentic 'being' child is problematic if the being child is trapped in oppressive and harmful structures (for example, Black children and children of colour, poor children, dis/abled children) and has no opportunity to 'become' different (Spyrou *et al*., 2019).

A rational, liberal understanding of agency as individual freedom and choice becomes normative and leads to questions regarding children's competence, whereas a social understanding of agency can encompass emotional and non-cognitive aspects as well as dimensions such as race, class, dis/ability, gender and other contextualisations in ways that require 'acknowledgement of the differences between children, as well as the differences between children and adults' (Valentine, 2011, p. 348; see also Mühlbacher and Sutterlüty, 2019). Abebe (2019, p. 81) argues that there is a need to look beyond the assertion that children are active agents in their lives to 'reveal the contexts and relational processes within which their everyday agency unfolds'. Individualising and rationalising agency can have the effect of removing children from intergenerational relations and other interdependencies (Abebe, 2019; Balagopalan, 2019; Konstantoni, 2012; Kraftl, 2013). In arguing for

more attention to spatiality and temporality in theorising agency, Holloway *et al.* (2019) suggest the concept of the 'encounter' (as assemblage and event) is useful, in that it can bring 'a politicized focus on the making of difference' (p. 466), bringing in relations beyond the encounter itself (showing how the global and local are inextricably interrelated) and recognition of the materiality of space.[20] They caution, however, against over-romanticising the possibilities for being different, using children's play as an example of how such encounters can also reproduce existing relations of inequality and injustice.

Others argue that (neo)liberal narratives of choice, freedom and entrepreneurialism have emerged alongside ideas of the participating agentic child to position children as responsible for making the right choices regarding their own wellbeing, learning and development. Whilst such agency might be seen as a form of empowerment for those with sufficient resources and support, making the 'wrong' choices can 'reinscrib[e] disadvantage as a personal or familial failing' (Smith, 2011, p. 30; see also Graham, 2007; Vandenbroeck and Bouverne-De Bie, 2006).

These issues highlight the tensions between children's agency and powerful structural forces that constrain them because of intersecting stratifications[21] including, but not only, that of age. The structure-agency dualism is one example of the many binary oppositions that characterised the early years of the social studies of childhood; others include adult-child, being-becoming, culture-nature (social-biological), mind-body. Not only do such dualisms produce absolute and fixed categories, but they also imply a hierarchy where one side of the binary is superior to the other (Lester, 2020).

Critiques of these dualisms contributed to the development of what some have tentatively named a 'new wave' of childhood studies (Holmberg, 2018; Kraftl and Horton, 2019; Kraftl *et al.*, 2019; Ryan, 2011), although the approaches are 'taking hold patchily' (Kraftl and Horton, 2019, p. 105).

2.2.3 The 'new' or 'third' wave of childhood studies

The 'new wave' of childhood studies has emerged alongside broader philosophical, political and theoretical moves away from modernist[22] forms of thinking that sought clarity and stability and towards a diverse range of 'post' approaches (postmodernism, poststructuralism, posthumanism to name a few), working with the postmodern era of intense change characterised by social, economic, geopolitical and environmental uncertainty, risk and insecurity, together with widening inequalities (Prout, 2011).

It is difficult to summarise this diverse and wide-ranging scholarship without omitting, over-simplifying or mis-representing some approaches. Murris (2016a) suggests there has been a broad shift in childhood studies from psychology to sociology to philosophy. However, it should also be noted, as has previously been said, that there is no neat linear progression from a shared starting point towards these ideas, many of which have been informing broader research agendas for some time; nor do they seek to replace the principles of the social studies of childhood. Many refer to the ideas as 'generative': seeing what more might be thought, said and done regarding childhood studies rather than refuting and replacing (Burman, 2019; Lester, 2020; Spyrou *et al.*, 2019). Nevertheless, it is possible to outline some common tenets.

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[20] These ideas are discussed in more detail in chapter 4.

[21] 'Stratification' is a term used in sociology to describe the social standing of people by categories, for example, race, class, gender, dis/ability, sexuality and more.

[22] In this context, 'modernism' refers to the kinds of thinking predominant during the Enlightenment project in Europe and the American colonies of the seventeenth and eighteenth centuries that were based on the idea that empirical scientific reasoning could bring to light objectively existing and universal truths about the world (previously explained through superstition, religion or philosophy) and how humans could therefore control events.

From a sociological perspective, Prout (2005, 2011) notes the need to move beyond the dualisms inherent in the 'new paradigm' of the social studies of childhood, and in particular the nature-culture binary, or what some have called biosocial dualism (Kraftl and Horton, 2019; Lee and Motzkau, 2011; Ryan, 2011). This binary is closely linked to that of being-becoming, where developmentalism and socialisation see the 'natural and becoming' child moving towards a more social adult 'being'. The early rejection of biology and psychology within the social studies of childhood, alongside the insistence that childhood was a social construction, created a regrettable 'wall of silence' (Thorne, 2007, p. 150) between social studies of childhood and the field of child development. Lee and Motzkau (2011) suggest that in the twentieth century such a dualism provided a useful navigational aid in considering how biological and social processes might be theorised in childhood, and particularly in terms of how such research might influence policy. However, the focus on the social was at the expense of broader embodied and material aspects of children's lives, 'whether this is thought of as nature, bodies, technologies, artefacts or architectures' (Prout, 2011, p. 7). Alongside this, wider changes including increasing technical interventions into life processes and the growing impact of climate change make it necessary to look beyond such a stark duality (Lee and Motzkau, 2011). Embodiment, affect, and a radical perspective on relations with the world are brought back into theorising childhood in the 'new wave'.

Non-representational, relational and material perspectives on children's lives

'Non-representational' has been suggested as a possible 'umbrella term for diverse work that seeks better to cope with our self-evidently more-than-human, more-than-textual, multisensual worlds' (Lorimer, 2005, p. 83). Others have preferred talking in terms of relational perspectives that are sometimes referred to as posthuman and/or new materialist (for example, Goodenough *et al.*, 2021; Kraftl and Horton, 2019; Kraftl *et al.*, 2019; Lenz Taguchi, 2014; Lester, 2020; Murris, 2016a, 2016b; Taylor, 2011).

'Non-representational theory' is a term coined in the 1990s by geographer Nigel Thrift (but drawing on a philosophical heritage going back much further) to describe a growing body of work that is, at its core, about the politics of 'the geography of what happens' (Thrift, 2008, p. 2). The term implies an opposition to representational thinking, although this ironically creates a dualism and so some have suggested 'more-than-representational' might better embrace a more critical and generative aim (Lorimer, 2005). Representational thinking assumes that there is an externally existing stable world that can be discovered and then represented in a language that defines, fixes and classifies (Lester, 2020). The category of 'child' is fixed in opposition to adulthood in such a way that means that all children, no matter the differences between them, represent the category of child in ways that overlook those differences (Dahlbeck, 2012).

In contrast, non-representational approaches work with life as a lively affair, foregrounding movement, the rhythms and flows of everyday life, difference and continual change. They also seek to work with the excess of life that cannot be captured in language, working with the pre-conscious, affect, sensation and embodiment in a dynamic relationship with the conscious and cognitive. Further, they move beyond the separate and singular self, beyond identity, to work with a radical relationality (Kraftl and Horton, 2019; Lester, 2020; Thrift, 2008).

Relationality decentres 'the child' (Prout, 2007; Spyrou, 2017; Taylor and Pacini-Ketchabaw, 2015) and 'gives equal weight to the vast spillage of *things*' (Thrift, 2008, p. 9, emphasis in the original). This brings into focus the liveliness of material objects and attends to how human and material forms mutually shape and are shaped by each other (Lester, 2020; Mereweather, 2020; Murris, 2020; Rautio, 2013a, 2013b). Relationality here is more than interaction: life is not an individual affair, there is no original pre-existing state. From this perspective, life is an ongoing process of continual change (difference as a process) that emerge from encounters rather than a sequence of decontextualised and predetermined developmental stages *en route* to completion (Lester, 2020; Spyrou, 2019). Such encounters include the tangible, such as other bodies (human, non-human, elemental, organisational), material objects, landscapes, and also the less tangible, such as affects, sensations, desires, as well as systems and processes (for example, calendars, timetables, rules, codes of behaviour, systems of oppression). Amin (2006, p. 1013) calls these systems and processes the 'machinic order' of the built environment. This 'machinic order' includes traffic lights, postcodes, pipes and cables, databases, schedules and much more, as well as histories, habits and routines of social and institutional life ('practices'). This offers up a rather different, non-linear, non-telic[23] – and affirmative – meaning of 'becoming': we are all always becoming different through encounters.

Such a radical understanding of relationality repositions the idea of agency: no longer something that is possessed by individuals, agency is distributed (Oswell, 2021), emerging from these encounters, bringing everything into play (Änggård, 2016; Gallacher and Gallagher, 2008; Gallagher, 2019; Holloway *et al.*, 2019; Lester, 2020; Raithelhuber, 2016; Taylor, 2011). These encounters and assemblages also attend to the embodied and performative nature of everyday practices, particularly those that are habitual and pre-cognitive. This marks a move from seeing childhood as an identity category towards looking at how childhood is produced through practices: 'from what childhood is to how it is done' (Spyrou *et al.*, 2019, p. 8). In more concrete terms, in looking at what a body can do, Lester (2020) draws on Deleuzian concepts of affect and desire, which emerge from entanglements of bodies, things, and less tangible phenomena such as habits and affective atmospheres. He suggests that 'life goes on through a desire to form arrangements or assemblages that are conducive to being well' (Lester, 2020, p. 85). 'Assemblages' are understood not as fixed unities but as 'processes of continual becoming' (Gallagher, 2019, p. 190), as movement. Desire is expressed in bodies' movements towards the power to affect and be affected by the conditions of life. Practices – what a body does – are inherently spatial and productive of how space functions, making this an ethical approach that is particularly relevant in studying the lives of children who are often 'out of place' in public space (Russell *et al.*, 2020).

Experimentation is also a key element of non-representational approaches, allowing for a disruption of business as usual, working with new methods that foreground affect and performativity, asking questions such as 'what if?' and 'what more?' (Lester, 2020). Experimentation works with the messiness of the world and encourages a playful approach to research that is not bound by the limits of current knowledge. It might be argued that such approaches are particularly well suited to the study of play itself, as well as playful methodologies. Thrift (2008, p. 7) notes that

'[N]on-representational theory privileges play: play is understood as a perpetual human activity with immense affective significance, by no means confined to just early childhood, in which many basic ethical dilemmas (such as fairness) are worked through in ways which are both performative and theoretical.'

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[23] 'Non-telic' here means not focused on an end point, foregrounding process over goal.

Critiques of the 'new wave'

Mitchell and Elwood (2012, p. 791) suggest the initial value of non-representational theory was as 'a playful reminder about the importance of the unexpected, the excessive, and the inexpressible, the dangers of scientism, and the hubris of desiring explanations for things that cannot always be explained'. As with the 'new social studies of childhood', however, the approaches that have been grouped under the heading of 'non-representational' have drawn criticisms from both within and outside their proponents (Holloway, 2014; Holloway *et al.*, 2019; Kraftl, 2013; Kraftl and Horton, 2019; Mitchell and Elwood, 2012; Ryan, 2011).

The approaches have been criticised for being overly theoretical (Cresswell, 2012); those who do engage in empirical research can become caught up in the research process itself without reference beyond (Mitchell and Elwood, 2012), or seem stuck in endlessly describing encounters and practices (Kraftl, 2018) or in 'small-scale, ephemeral, even introspective concerns' (Kraftl *et al.*, 2019, p. 1192). With reference to disabled children's childhood studies, Goodley and Runswick-Cole (2020, p. 11) note:

> 'These are heady times. These are head-bending times. Theory swamps us, douses us, entangles us, binds us to concepts, tropes and explanatory frameworks. But where does theory lead us and leave us?'

This theory has the potential to 'create a veil' (*ibid.*) over disabled children's lives and aspirations; equally it can – and should, according to Goodley and Runswick-Cole – 'illuminate, celebrate, magnify, accompany, follow, urge, steer and be steered by the possibilities of a life lived as a disabled young person' (*ibid.*, pp. 11-12), and effect change towards social justice.

Another criticism is that a relational approach that claims to decentre a 'self' has difficulty engaging with (representational) structural and identity issues and therefore with issues of history, power and justice (Balagopalan, 2019; Cresswell, 2012; Holloway *et al.*, 2019; Kraftl, 2018; Leong, 2016; Mayes, 2019; Mitchell and Elwood, 2012). Holloway *et al.* (2019, p. 467) appreciate the enchantment found particularly in empirical research into children's play, but also note the 'encounter' is not only a space for transformation and hope, but also for reproducing 'gendered, disablist and classed differences'. A focus on here-and-now embodied practices can depoliticise events and cut them off from larger historic patterns of systemic violence that produce such events and affect (Leong, 2016; Mitchell and Elwood, 2012).

Fox and Alldred (2021a, p. 13), defending the new materialist ontology more broadly, suggest that a focus on the micro-politics, materialities and affective flows of everyday life can show how sociomaterial disadvantages emerge from 'a thousand tiny dis/advantages'. Equally, such criticisms do not hold for all those engaging in research from this perspective (see, for example, Carroll *et al.*, 2019; Pyyry and Tani, 2019; Soreaunu and Hurducaş, 2016), especially those exploring and working with postcolonial and decolonial, feminist and queer approaches (for example, Aitken, 2018a; Burman, 2018; Dyer, 2017; Kraftl *et al.*, 2019; Kraftl, 2020a; Silver, 2020), or those considering children's rights who look to work with situated and relational understandings of rights rather than seeing them as possessed by individual rights bearers (Aitken, 2018a; Wilson, 2022).

Indeed, the starting point for many was the critique of the liberal humanist child of developmentalism as essentially colonial, and that posthuman approaches can offer an alternative to such reductionist models of development (Burman, 2018). The necessity of acknowledging the ethical dimensions of researching and theorising childhood within the 'new wave' has been emphasised. Holloway *et al.* (2019, p. 465) note the approach 'can be best deployed when tied to a critical analysis of power inequalities'; Burman (2019, p. 6) makes the case for 'activist approaches that understand research practices (including academic practices) as political interventions carrying responsibilities and opportunities for solidarity and transformation'.

2.2.4 The universal child, difference, inequality and intersectionality

The 'new' social studies of childhood and their successors did much to challenge the social construction of the 'universal ideal child' found in oversimplified, decontextualised and technical applications of developmental psychology, for example in standardised developmental and academic assessments and the material-discursive practices of concepts such as 'ages and stages' (Punch and Tisdall, 2012; Robinson and Jones Diaz, 2006) and 'developmental delay' (Gabriel, 2020; Goodley *et al.*, 2020; Grech, 2021; Wood, 2020). Studies of children's everyday lives have explored specific social stratifications such as gender, race, class, dis/ability, sexuality and sexual orientation, ethnicity, religion and culture.

Yet, critics (for example Balagopalan, 2019; de Castro, 2020; de Graeve, 2015; Dowd, 2016; Dumas and Nelson, 2016; Dyer, 2017) note that merely describing these differences is insufficient, indeed mere description often exacerbates the conditions that set them apart, 'simplifying social fictions that produce inequalities in the process of producing difference' (McCall, 2005, p. 1773). Balagopalan (2019) stresses the need to address historicity in research with children. Dyer (2017) makes the case for queer theory as a methodology for studying children and not only to fix the identities of queer children. Dumas and Nelson (2016, p. 30) argue that 'all poor children and children of color suffer by being outside the public imagination of what childhood means'.

Beyond childhood studies, wider issues of power inherent both in the production of knowledge and in what such received knowledge perpetrates and perpetuates need to be addressed too. Salami (2020) uses the term 'Europatriarchal' to describe the dominant mode of knowledge production that both underpins and produces everyday relations, professional frameworks and policies, noting that despite its great achievements and its privileging of rationality it is 'a constructed and biased narrative that brazenly centers whiteness and maleness' (p. 20). Leong (2016, p. 12) also notes, 'Critical theories produced by non-white scholars … are consistently marked as minority perspectives that have little to do with universal or ontological questions'.

The trope of the universal child has been caught up in both the power dynamics of the production of knowledge (Dowd, 2016) and linked processes of globalisation (Aitken, 2018a), including what Moss (2017, p. 14) calls 'the story of markets' and 'the story of quality and high returns'. There is an assumption of a 'global child' (de Castro, 2020) that is based historically on norms that are white, patriarchal, heteronormative, European/USA and middle class (Abebe, 2019; Burman, 2019; Butler *et al.*, 2019; Dowd, 2016; Dyer, 2017; Hanson *et al.*, 2018; Robinson and Jones Diaz, 2006; Shallwani, 2010; Smith, 2011; Thorne, 2007; VandenBroeck and Bouverne-De Bie, 2006). Similar criticisms have been made of the assumption of a universal child within the UNCRC. Critiques have drawn parallels between developmentalism as applied to childhood and colonial attitudes towards international development, situating both children and 'developing' countries as unfinished and on a linear trajectory towards maturity within a global capitalist and technological context (Aitken, 2018a; Burman, 2019; Cheney, 2019; Hanson *et al.*, 2018; Moss, 2017). Balagopalan (2019) notes how empirical studies into 'different' childhoods (in her case, majority world childhoods) are seen as examples that either oppose or reaffirm the normative (Euro-American) 'ideal' childhood and are rarely used for broader theorisation on childhoods. Often, fixing children into 'other' categories

presents them as perpetual victims (de Graeve, 2015). Moreover, as with the post-developmentalist approaches to childhood studies generally,[24] these studies have had limited impact on policy and practice: dominant narratives remain intractably so (Cheney, 2019; Moss, 2017; Punch, 2016).

Dis/abled children's childhood studies

Despite a stated commitment to move beyond normative notions of the universal 'ideal child' in both the social studies of childhood and non-representative approaches, disabled children are still either absent or presented as 'having problems or being problems' (Curran and Runswick-Cole, 2014, p. 1617; Runswick-Cole and Curran, 2020). Disabled children face exclusions and deficit discourses in mainstream developmentalist research, particularly in its manifestation in educational policy and practices of assessment (Goodfellow and Burman, 2019) that position disabled children as outside normal trajectories (Burman, 2007; Curran and Runswick-Cole, 2014; Wickenden, 2019). Indeed, such deficit discourses perform a necessary function of fixing what is 'normal' through exclusion and pathologisation, despite efforts from some education psychologists to resist them (Goodfellow and Burman, 2019). Yet, Curran and Runswick-Cole (2014) argue that even in those branches of childhood studies that aim to critique the 'standard' child and emphasise diversity, including posthuman and new materialist approaches, the autonomous agentic child still lurks (Abebe, 2019; Balagopalan, 2019; Konstantoni, 2012; Kraftl, 2013; Spyrou *et al*., 2019)[25] and categories still tend to be bounded and normative. Here also dis/ability either remains absent or 'Disabled children are present as broken objects and without age, gender, race, class and ethnicity or status as siblings, grandchildren and friends' (Runswick-Cole and Curran, 2020, p. 89), ignoring disabled children's lived experiences or constructing their bodies and lives as 'other'.

In a similar vein, dis/ability studies have done much to highlight the limits and oppressions of the medical and charity models of disability and to present disability as a social issue, mostly through promotion of the social model of disability, which argues that it is societal structures that disable rather than an individual's impairments. Locating the origins of the social model in the identity politics of the 1970s and 1980s, Shakespeare (2014) argues that one of its strengths was that it had a clear political strategy, namely, to identify and remove disabling barriers. In addition, seeing disability as a social justice issue rather than an individual deficit was liberating. Yet, alongside these acknowledged strengths, critiques of the social model argue that, in parallel with developments in social, cultural and philosophical theory more generally, the social model has eclipsed the embodied and biological aspects of impairments and other more complex nuances of lived experience (Goodley, 2017). It has become too fixed and rigid in its dualistic separation of the social and the biological, of social disablement and impairment, in ways that were both politically (in terms of advocacy for specific impairments) and practically (in terms of eschewing medical intervention) problematic (Shakespeare, 2014). Others argue that it fails to pay attention to the gendered, classed and racialised aspects of dis/ability (Curran and Runswick-Cole, 2014).

Yet, the development of critical disability studies, whilst offering much for researching the lives of disabled people, does not focus on children and childhood. The opportunities and shortcomings of both childhood studies and critical disability studies have given rise to a branch of study known as 'disabled children's childhood studies', which seek to move beyond an emphasis on impairment or exclusion to document the everyday lives of disabled children (Goodley *et al*., 2020; Curran and Runswick-Cole, 2014; Runswick-Cole *et al*., 2018). The call for such studies has come from disabled children and young people and their allies, and the ethics of research studies start with the experiences of disabled children themselves. The aim is for an 'agenda for change that seeks to trouble the hegemony of the Eurocentric "norm"' (Curran and Runswick-Cole, 2014, pp. 1623-1624). Studies draw on many of the ideas explored in section 2.2.3, including posthumanism and new materialism (for example, de Schauwer *et al*., 2016; Goodley and Runswick-Cole, 2012; Liddiard *et al*., 2019).

[24] See section 2.3.7.

[25] See also section 2.2.2.

More broadly, childhood scholars have explored a number of approaches to addressing the challenge of overcoming the entrenched notion of the universal 'ideal' (white, male, middle class, non-disabled) child and the equally problematic stratification of categories of children. Silver (2020) argues for a Transformative Childhood Studies (TCS), involving a 'remix' of interdisciplinary, 'boundary-spanning' childhood studies. Such an approach would focus on transformative justice, seeking to repair the multi-layered personal, systemic and structural conditions that 'make individuals susceptible to causing and oftentimes simultaneously experiencing harm' (p. 179). Using feminist methodologies can help move beyond the ethical research mantra of do no harm towards a radical openness and a reflexive relationship of love and care, paying attention to how children's wisdom is shared and produced and how that informs praxis and policy.

Intersectionality

The concept of intersectionality may be helpful in looking beyond categories as representational fixed identities and towards the *processes* of subordination and privilege: not the who but the how. Intersectionality is a term coined by US law professor Kimberlé Crenshaw, one of the co-founders of Critical Race Theory, with the aim of moving beyond the single-axis framework of categories of difference (where racism was mostly about Black men and feminism mostly about white women) and to both highlight and counter 'the simultaneous and interacting effects of gender, race, class, sexual orientation, and national origin (and others) as categories of difference' (Bassel and Emejulu, 2010, p. 518). The concept has spread widely, alongside critiques that the term's origins, the emotional labour of the originating Black feminist scholars, and the approach's original intentions have not been sufficiently honoured (Konstantoni and Emejulu, 2016). Intersectionality is more than an analytical framework that can acknowledge complex, *intracategorical* interactions of power, subordination and privilege (McCall, 2005), it is a 'counter-hegemonic praxis that seeks to challenge and displace hegemonic whiteness in the naming and legitimating of particular kinds of politics, policymaking and knowledge production' (Konstantoni and Emejulu, 2017, p. 8).

With this emancipatory perspective in mind, intersectionality offers a useful analytical and activist framework for childhood studies (Alanen, 2016; Butler *et al*., 2019; de Graeve, 2015; Konstantoni and Emejulu, 2017; Konstantoni *et al*., 2014; Rodó-de-Zárate, 2017), although as Thorne (2004, p. 404) notes, 'it is challenging not only to identify, but also to systematically attend to multiple social distinctions, which may amplify, contradict, mute, twist and in other ways shape one another'. These 'multiple social distinctions' still often end up in the language of categories that risk fixing and excluding those who do not quite fit – what Cho *et al*. (2013, p. 787) call 'the eponymous "et cetera" problem'. Intersectionality offers some hope of moving beyond the constraints of category boundaries.

Hanson and Peleg (2020) note that the term 'intersectionality' was coined in the same year that the UNCRC was adopted (1989). In considering how the concept might draw attention to violations of children's rights on the basis of a range of other forms of oppression, they highlight the importance of seeing intersections as more than a simple collection of identities but as interwoven and complex. They also recognise, however, that 'a non-additive analysis implied by intersectionality that begins by looking at differences between individuals rather than similarities is not easy to operationalise empirically' (Hanson and Peleg, 2020, p. 25).

In their report from a seminar exploring intersectionality in childhood studies, Konstantoni *et al*. (2014, p. 7) note

'the importance of locality, mobility, time, place and space for understanding childhood intersecting identities and inequalities. In other words, where children and young people are, the historical moment in which they live and the public and private spaces they occupy are of central importance to understanding their complex experiences.'

Similarly, Horton and Kraftl (2018a, p. 928) suggest extending the idea of intersectionality to include the processes and affects of everyday social materialities, folding together intersectionality's 'critical and political purchase' with the 'social-material complexities and vitalities' of children's lives through an *extra*-sectional analysis. As well as responding to the criticism (described above) that the focus of relational approaches on the micro details of encounters with non-human and material others can obscure the violence of socio-political and economic inequalities (Holloway *et al*., 2019; Leong, 2016; Mitchell and Elwood, 2012), Horton and Kraftl (2018a) also seek to extend the concept of intersectionality to include socio-material processes and broader social, political and economic geographies. Such narratives show the complex intersections of subordination and privilege, of poverty and racism.[26]

Another current concept in childhood studies that aims to move beyond the fixity of categories is that of hyperdiversity. Again, the concept seeks to extend work on superdiversity of multiple ethnic identities (mostly in cities) which, although appreciating the complexities of identity beyond broader ethnic groups still works with single categories and has been criticised for being over-simplistic. The idea of hyperdiversity, proposed by Tasan-Kok *et al*. (2013), moves beyond categories of socio-economic, social and ethnic diversity to include the everyday enacted differences of lifestyle, attitudes and activities. This opens the door for non-representational and materialist approaches to childhood studies to work with representational identity politics (Kraftl *et al*., 2019) in more nuanced and dynamic ways that also attend to everyday encounters with the material and to the performativity of identities that emerges from such encounters.

Questioning 'the child' in childhood studies

The problem of universality and difference is debated energetically within childhood studies. The very category of 'child' presupposes a homogeneity and a boundary that separates 'child' from 'non-child', that is, adult. Such universality makes difference and multiplicity difficult to theorise, because 'difference is trapped in a representational model' whose very function is 'to indicate sameness' (Dahlbeck, 2012, p. 6). The fixed identity of 'child' represents all children in their difference from adults and the only change is the prescribed linear march towards maturity and adulthood. This is difference from a representational perspective. From a *relational* perspective, by contrast, difference is not subsumed into sameness through representational categories, but becomes fluid and ongoing: 'becoming' is a constant process of flux and change rather than a teleological becoming 'something else' (Dahlbeck, 2012; Lester, 2020; Tarulli and Skott-Myrhe, 2006). Alderson (2016) argues that an undue focus on children can have the effect of side-lining other issues that affect children such as politics or economics.

[26] These ideas are discussed further in chapter 4.

Some of the 'new wave' scholars argue that perhaps childhood studies need to decentre the child. 'Childhood Studies' inevitably constructs childhood as a category, whether universal or not (Hammersley, 2016). However, if posthuman perspectives aim to move away from anthropocentrism[27] and human exceptionalism towards relational perspectives, then perhaps childhood studies should follow a similar line of enquiry. Spyrou (2017) suggests that paying attention to the relational processes by which children and other human and non-human entities change or come into being through encounters can expand ways of thinking about childhood. Such a shift can bring in other processes not often considered as aspects of what can be an inward-looking field of study that has mainly researched child-focused issues such as education, play, children's rights or child labour, or even issues of children's participation, which can unwittingly fix and separate children's perspectives from their relations with human and non-human others. Looking at complex, broader topics of study, such as the Anthropocene,[28] capitalism, health or even terrorism requires decentring children and working with scholars in other fields and being open to strange and different topics.

Kraftl's (2020) proposal to consider 'after' childhood claims both to exceed and be more modest than the suggestions to 'decentre' childhood. The materialities, politics and pragmatics of children's lives that produce harm, violence or trauma are complex and nuanced (and may at times also include silliness and playfulness). He argues for having as a starting point not children or childhood but the vast array of stuff and processes with which children's lives are entangled (such as water, food, plastics, social media and much more), across different scales, spaces and times. This can involve working with seemingly unrelated disciplines and professions, and at times being prepared *not* to pay attention to children, at least for a while, to shift focus to materialities and processes in which children – and others – are implicated.

Yet, the political value of childhood as a category has also been argued (see, for example, Alanen, 2016; James, 2010; Qvortrup, 2008, cited in James, 2010). The case here is that a focus on difference and multiplicity weakens the 'political power of the singular category of childhood, which lies in its ability to draw attention to the way in which children everywhere are marginalized and made invisible in social and economic policy' (James, 2010, p. 488).

Childism

One example of contemporary childhood studies working in a relational way with the categorical child is that of 'childism'. The term is used in three different, sometimes contradictory, and sometimes complementary ways.

Firstly, it can refer to prejudice against children as a distinct group, as used in the work of Young-Bruehl (2009, 2012) and Barbre (2012, 2013), mostly from a psychoanalytical viewpoint that revived an earlier use of the term (Wall, 2022a, 2022b). This understanding of the term has been used more recently by Adami and Dineen (2021) in their analysis of how decisions made during the COVID-19 pandemic revealed a systematic discrimination against children. Such discrimination included referring to children as vectors of the disease, school closures and associated child hunger, the closing down of children's support services and the prioritising of workers and business over vulnerable children, leading to restricting children's movements and to an increase in violence towards children. They argue that such discrimination is structural, that it is a system of social injustice embedded in policy, law and everyday discourse that operates in intersectional ways on children as a heterogeneous group. The concept of childism names such discrimination and so can help to identify and address it.

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[27] Anthropocentrism means 'human-centred' and refers to the pervasive belief that humans are at the centre of life.

[28] 'Anthropocene' refers to the unofficial name given to the current epoch when human activity has had a significant impact on climate and ecosystems (Natural Geographic, 2022).

The second use of the term is in the field of literary theory and refers to adults reading literature as if they were children, reading (mostly) children's literature from children's perspectives and so deconstructing adult biases. This use, propounded mostly in the work of Peter Hunt (1991) and later Sebastian Chapleau (2004, 2007) has largely fallen out of use, having been heavily critiqued as essentialising children's perspectives (Wall, 2022a, 2022b).

The third use of the term has emerged from childhood studies and particularly from the work of political philosopher John Wall (2010, 2013, 2022a). This is presented as an empowering approach aiming for childhood studies to engage more with broader societal issues (Wall, 2022a). If the first understanding of childism above can be likened to sexism, then this third understanding is analogous to feminism as well as other critical movements such as post-genderism, posthumanism, anti-racism, decolonialism and environmentalism (Wall, 2022a, 2022), noting that 'while "isms" can be blunt tools, they can and do also provide powerful theoretical lenses for critical study and activism' (Wall, 2022a, p. 257). Wall also argues that children make up a third of the world's population, and that the concept of patriarchy applies to the dominance of the father as well as of men towards women.

A childist approach aims not only to reveal and critique adultist power structures but also to enable children's experiences to change both scholarship and societies (Wall, 2022b), and to find 'in children themselves the resources to make societies more just' (The Childism Institute, 2021). The Childism Institute was established in 2019 and has on its advisory board a range of childhood scholars (many of whom have been cited in this section) who bring varied perspectives to the aim of shifting childhood studies 'from recognizing children's equality to adults to also questioning the underlying structural assumptions that define this equality in the first place' (Childism Institute, 2022). This includes sociology, politics, children's rights, intersectionality, intergenerationality, childhood activism, environmentalism, religion, education, children's play and more (Wall, 2022a, 2022b).

Adami and Dineen (2021) critique this third understanding for its assumption that adults can advocate for justice for children without first attending to their own biases and prejudices. Wall (2022a) similarly critiques the first understanding as being negative and taking a deficit rather than an agentic view of childhood. Nevertheless, both approaches aim to work with the concept of childhood as a category in intersectional ways towards social justice.

2.3 Childhood, play and social policy

A frequent critique of both the social studies of childhood, and of non-representational, posthuman and new materialist approaches, is that they often privilege the socio-cultural and the everyday at micro level over more macro political economies of childhood (see, for example, Hart and Boyden, 2019; Katz, 2018, 2019; Spyrou *et al*., 2019), albeit within an understanding of relational entanglements, emergence and acknowledging 'politics as an unquestionable element of all human life including childhood and youth' (Kallio and Häkli, 2013, p. 1). Meanings of what is political have been extended to a 'minor politics' (Dahlberg and Moss, 2005; Lester, 2013)[29] of children's everyday practices and participation. While this is welcome, it can occlude the complexities of legal, policy and structural limits to children's lives (Mitchell and Elwood, 2012). As Morrow (2012, p. 6) notes:

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[29] 'Minor' is used here to describe everyday practices that can be understood as a form of micro-political activism. This makes it different from the programmed Politics (upper case 'P') of political parties and formal political processes.

'The implications for children of inequality, the increasing marketization of all aspects of social life (including matters previously dealt with by the state, such as formal education and health), the payment of welfare benefits conditional on parents' and children's behaviour and the increasingly punitive approaches to people who do not fit the supposed ideal type of child/young person, which lead to incarceration and further social exclusion – all these are questions of global relevance that economists, political philosophers and sociologists could usefully join forces to explore.'

There is a need, therefore, to explore the space in-between and the intersections of the micro-politics of the everyday and the macro-politics of public policy (Kallio and Häkli, 2013; Press and Skattebol, 2007). Whilst the contemporary critique of neoliberal, universalising and individualising policies are important, it may also 'overshadow the potential for policy to be redistributive' (Press and Skattebol, 2007, p. 182). This section attempts to work with the space in-between policy, policy studies, critique and pragmatism to explore possibilities for social and spatial justice for children.

The remainder of this chapter reviews the literature on social policy relating to children and play. It starts with an overview of the literature on children and social policy, outlining contemporary policy and popular concerns about children and historic understandings of play in children's policy. It then goes on to situate contemporary policy making within recent history and the current period of austerity following the financial crisis of 2008, with a focus on social investment as a policy formation. The following section offers a brief introduction to the Welsh Government's approach to policy making since devolution, highlighting key principles, the rights-based approach to policy making for children and policies for play, including the Welsh Government's Play Sufficiency Duty. We then offer a consideration of the Welsh Government's radical and overarching Well-being of Future Generations (Wales) Act 2015, which is followed by a look at the literature on children's wellbeing and policy. Following this, the chapter revisits some of the contemporary concerns to consider policy responses to them and finishes with a brief comment on the relationship between play and wellbeing. The chapter closes with a proposal for a relational capability approach to children's wellbeing through play that can both inform the rest of this review and offer a framework for play policy and advocacy.

2.3.1 Children, play and social policy: an overview

'Policy recommendations (for families, schools, governments, media, and other bodies) are driven as much by cherished values as they are by evidence. And play, in part because of a continuing difficulty in defining that subject, has been especially subject to such enthusiasms. Play advocates … believe that the world is made better by their activities' (Henricks, 2015a, p. 6).

The literature on the history of social policy relating to children illustrates changing understandings of the nature and value of childhood and children, the perceived social problems to be solved, and political and cultural ideologies of the time. It traces an (uneven) increase in state involvement in the private and domestic lives of individuals and families together with a paradoxical tension between that and the personalisation of responsibility. There are similar tensions between protection (children *at* risk) and control (children *as* risk) and between the interests of children and the state's interest in future productive citizens (Archer and Albin-Clark, 2022;

Read, 2011; Ryan, 2020; Vignoles and Thomson, 2019). As Burman (2019, p. 12) notes, 'under late capitalism (sometimes called neoliberalism),[30] the child is discoursed in policy as the site for the production of compliant but active and economically self-sufficient citizens'.

Although policies directly aimed at children are often called 'social' policy, this obscures how such policies act at 'the intersection of the biological and the social, the medical and the moral … with a view to governing the future' (Ryan, 2017, p. 25). The problems that policy seeks to address are not limited to the social, as evidenced in the range of contemporary social policy agendas. This includes:

• the current interest in brain development in the early years and in adolescence, and the (mis)use of neuroscience in policy making, particularly in the early years (Dallimore, 2019; Edwards *et al*., 2016; Lowe *et al*., 2015; McGimpsey, 2017; Vandenbroeck, 2017; Wastell and White, 2012; Williams and Daniel, 2021);

• obesity and physical activity (Jones and Brunt, 2017; O'Hara and Taylor, 2018; Tyler *et al*., 2016; Welsh Government, 2015, 2019);

• children's mental and physical health and wellbeing (All Party Parliamentary Group on a Fit and Healthy Childhood, 2015; James *et al*., 2021; Lowe *et al*., 2015; Ryan, 2017; Wells, 2011a; Welsh Government, 2015, 2019);

• neurodiversity and Additional Learning Needs (Kirby, 2021; Knight and Crick, 2022; Stenning and Rosqvist 2021);

• youth justice and criminality (Densley *et al*., 2020; Drakeford, 2010; Gough, 2012; Harding, 2020; Windle *et al*., 2020);

• the transmission of deprivation and anti-social behaviour from parents to children (Edwards *et al*., 2022);

• the relationships between children and technology (Lee and Motzkau, 2011; Robeyns, 2020; Tisdall, 2015a; Tyler *et al*., 2016), markets (Bailey, 2011; Burman, 2011; Williams, 2013), transport and environments (British Academy, 2020b; Jones and Brunt, 2017; Welsh Government, 2021a) and more.

Some of these issues are discussed further below.

Policies directed at children tend to be future-focused and aimed at correcting or preventing social problems, maximising children's future productivity and minimising their cost to the state (Lester and Russell, 2013b). Whilst universal policies such as education and health act on all children, their underlying ideologies, production and practices play out differently across intersectional groupings that are classed, racialised, gendered and dis/ablised[31] with targeted policies often further entrenching inequalities (Edwards *et al*., 2022; Katz, 2019). Couched in (well-intentioned) language of addressing inequalities, empowerment, opportunities and realising potential, such policies also aim to govern children's minds and bodies and to encourage them to govern themselves (see, for example, Dauda, 2013; Edwards and Gillies, 2020; Edwards *et al*., 2022; Fisher, 2011; Gagen, 2015; Katz, 2019; Lee and Motzkau, 2011; Lester and Russell, 2013; Lyndon, 2019; Ryan, 2011, 2014a, 2014b, 2017, 2020).

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[30] 'Neoliberalism' refers to political and economic ideologies and practices that see human wellbeing as arising from 'individual entrepreneurial freedoms' (Harvey, 2007, p. 2) and the accumulation of wealth. It has emerged from policies in the 1970s onwards that have seen a withdrawal of the state from a traditional social welfare role, the increasing incursion of the markets and associated managerial ideologies into public services and the deregulation of finance and other systems seen as restricting market forces.

[31] The term 'dis/ablised' is used to refer to the ways in which the entanglements of histories, policies and everyday habitual practices and spaces are experienced differently by disabled and non-disabled people.

This form of governmentality is what Foucault (2008) terms 'biopolitics', or 'how liberalism governs through orchestrating the conduct of conduct in order to secure the disciplining of bodies and the regulation of populations' (Wells, 2011a, p. 16). Neoliberalism has brought with it an increasing 'responsibilisation' of citizens to be less dependent on the state and to make good choices regarding their own 'wellbeing, health, safety and quality of life' (Juhila *et al.*, 2017, p. 13), and that of their children (Edwards and Gillies, 2020; Edwards *et al.*, 2022; Katz, 2019). Such a discourse has extended to children themselves who are also expected to become individually autonomous and personally responsible (Diaz-Diaz, 2022).

The risk and prevention paradigm

Alongside such forms of governmentality 'the language of risk has become omnipresent in everyday life and assumed status as a filter through which people react to and make sense of experience' (Walklate and Mythen, 2010, p. 49). Such a discourse is performative (it affects thinking and practices) and is apparent both in the cultures of parenthood and in policy, playing out in ways that are classed, racialised, gendered and dis/ablised (for example, Deakin *et al.*, 2022; Edwards *et al.*, 2015, 2016; Elliott and Aseltine, 2012; France *et al.*, 2010; Gillies *et al.*, 2017; Juhila *et al.*, 2017; Ryan, 2021; Sharpe *et al.*, 2020; Turnbull and Spence, 2011; Vincent and Maxwell, 2016). Parental anxieties and fears for their children's health, safety and future are intensified by stories in the media and elsewhere (including policy) on a wide range of issues from climate change and geopolitics to everyday risks of health and security, together with advice on how to manage such risks. Mainland *et al.* (2017) talk of a new parenting culture that requires parents to navigate these risks to feel they are keeping their children safe and to avoid censure from others.[32]

Katz (2019) provides a political analysis of how children have been affected by the crises of capitalism that have seen a growing gap between rich and poor accompanied by disinvestment in public services and increasing privatisation of what she terms 'social reproduction'. She speaks of the USA, but we can see examples of such privatisation in the UK, particularly in England, for example the significant growth of private tuition and supplementary education (Pimlott-Wilson and Holloway, 2021), including as a response to the closures of schools during the COVID-19 pandemic (Francis, 2020; UK government, 2021) and the English academisation programme of schools (Heilbronn, 2016). Katz (2019) offers four configurations of the child, three of which apply to those with private resources to invest in their children's futures: the child as accumulation, commodity and ornament (see also Vincent and Maxwell, 2016 for a UK perspective on this). This is the 'intensive parenting' (Mainland *et al.*, 2017) that sees parents – coded white and middle class (Elliott *et al.*, 2015) – invest economically, temporally and emotionally in their children to try and secure the best possible future for them in an uncertain world. Such investments are fed by increasing anxieties and the fear of Katz's fourth configuration, that of the child as waste. This configuration is so named because, Katz suggests, they are analogous to a reserve army of labour that cannot currently be exploited; like waste, they are subject to myriad waste management strategies that are classed, racialised and gendered.

These parental anxieties and fears are also reflected in, and intensified by, policies relating to children which often construct children as both *at* risk and *as* risk. Since the late 1990s, population-based risk factor analysis, operating at the confluence of science, evidence and neoliberalism, has underpinned many policies on early intervention and prevention in 'the lives of those most at risk of becoming future social problems' (France *et al.*, 2010, p. 1193; see also Deakin *et al.*, 2022; Edwards *et al.*, 2015; Featherstone *et al.*, 2016; Gillies *et al.*, 2017; Maxwell *et al.*, 2019; Taylor, 2016; Turnbull and Spence, 2011).

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[32] These issues are revisited with respect to parental concerns for children's safety in the public realm in chapter 4.

The risk, prevention and intervention paradigm in social policy grew substantially during the UK New Labour Government of 1997 to 2010 (France *et al*., 2010; Turnbull and Spence, 2011), fed by particular understandings of neuroscience and epigenetics. Such discourses, albeit inadvertently, can produce notions of 'blame', individualising responsibility in ways that reproduce gender, class, and race inequalities (Edwards *et al*., 2015; Gillies *et al*., 2017; Richardson *et al*., 2014; Ryan, 2021). Since the introduction of austerity measures in the UK from 2010, such individualisation has intensified (Asenova *et al*., 2015; Lambert, 2019). These discursive practices have played out differently in the UK and Welsh Governments, and these differences are explored in more detail in section 2.3.3.

As has been said above, whilst such analyses and critiques in the literature are valuable, there is also a need to engage constructively with the intersection of such critique and the possibilities of policies for social justice.

Contemporary concerns regarding children: children as and at risk

'In many ways, twenty-first century (western) childhood may be characterized by a cacophony of moral panics. Concern about all numbers of aspects of contemporary children's lives abounds' (Woodyer *et al*., 2016, p. 18).

Following on from the risk-focused analysis of children and public policy, this section briefly explores some of the key contemporary policy, media and popular concerns about childhood. Whilst the issues themselves are presented as separate categories, it should be noted that children's experiences of these issues do not occur in isolation from each other or from the conditions of children's lives.

Child safety

The debates concerning children's physical safety and risk from injury or harm have been lively for some time (see, for example, Gill, 2007; Skenarzy, 2009). Adult anxiety regarding children's safety, particularly in public spaces, reached unprecedented levels in the 1990s in wealthy countries, such that 'freedom of movement or activity is generally perceived not as a right to which children should be entitled but as a risk from which they must be protected' (Bessell, 2017, p. 226). Fears for safety also extend to children's online worlds (Gottschalk, 2019; Livingstone *et al*., 2017, and see below). Alongside this, Ball and Ball-King (2021) argue how the classification of injury as a public health issue and the ensuing harm- and risk-focused approach to mitigating injury has led to a range of regulations, risk-assessments and restrictions that potentially compromise the benefits of many ordinary activities and practices. In terms of children's play, there is a growing recognition that bringing a risk-benefit approach to risk-assessing play provision can provide a reasonable and sensible balance (for example, Ball *et al*., 2012; Ball *et al*., 2019; Brussoni *et al*., 2012; van Rooijen and Newstead, 2017).

However, Lester and Russell (2014b, p. 241) argue that the promotion of risk-taking is itself caught up in technical and neoliberal practices and contemporary constructions of risk:

'No longer something that children just do, [play] is subject to adult scrutiny that simultaneously and paradoxically attempts to manage risk and promote "risk-taking" for its perceived instrumental benefits, primarily the development of risk assessing skills.'

It is difficult for both parents/caregivers and professionals not to become implicated in concerns for children's safety (Bessell, 2017; Bundy *et al*., 2009; van Dijk-Wesselius *et al*., 2020; van Rooijen and Newstead, 2017). Bessell (2017) shows how historically parental fears for children's safety in public spaces (primarily from traffic and strangers) has fed into policies that restrict children's freedom of movement, thereby reinforcing parental perceptions of danger. More recently, less immediately apparent risks to children's health and safety have been highlighted, for example air, water or noise pollution or danger from plastics, pesticides and other toxic substances. Such environmental hazards affect poorer children more and have significant effects on children's health and wellbeing (UNICEF, 2022a). One study cited in the UNICEF report has shown a correlation between the rise in toxic chemicals (in food, cosmetics, packing, air and water) and increased risk of attention deficit hyperactivity disorder (ADHD) and autistic spectrum disorder (ASD). Caregivers (and particularly mothers) are seen as responsible for their children's optimal health and development and their safety. In the face of contradictory messages from experts that promote both safety and risk-taking, safety predominates (Clark and Dumas, 2020).[33]

Children are aware that adults constrain their freedom of movement and playing out because of fears for their safety (Children's Commissioner for Wales, 2018). In practice, where children can build a knowledge of their neighbourhoods, they adopt avoidance strategies for staying away from places known as unsafe (Shortt and Ross, 2021; Witten and Carroll, 2016; Witten *et al*., 2015). The argument is made that rather than making adults responsible for children's safety in public space, policy makers should instead look to making environments safe for children (Barclay and Tawil, 2021; Bessell, 2017; Giles *et al*., 2019; Shaw *et al*., 2015). This is an argument we develop further in this section and throughout the review.

Children's digital lives

'Children fulfil a powerful symbolic function within public discourses of technology. Within discussions of risk and impact, children are often objects of concern. Within funding and policy initiatives, children frequently serve as a locus of hope and promise. Through conflicting and hyperbolic representations, children are alternately configured as both victims and victors of the information age. In turn, they provide rhetorical justification for everything from building more accessible computing centers to developing new regulatory policies' (Grimes, 2015, p. 127).

Data from the Office for National Statistics (ONS, 2021b) for England and Wales show that 89% of children aged 10 to 15 go online every day, 85% own a smartphone and 64% of parents have some kind of regulation regarding when and for how long their children can use digital media. One in five UK internet users are children (Information Commissioner's Office, 2020), although it should be noted that children's use of digital devices can be both online and offline. Gottschalk (2019) notes the data regarding the use of digital technologies by children under eight years is sparse, but indicate children are using such technologies regularly at a younger age. Statistics often use the concept of 'screen time' (time spent using digital devices, including television) and this, together with concern for the health and safety impacts of such use, has often led to recommendations for quantitative time limits on screen time. However, such an approach tends to be harm-focused in ways that overshadow benefits for learning, connection, creativity and play (Blum-Ross and Livingstone, 2016; Colvert, 2021; Family Kids and Youth, 2021).

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[33] The ways in which adult concerns for children's safety affect their freedoms to play, and particularly to play out in their neighbourhoods, are considered in chapter 4, section 4.2.5.

Additionally, it makes it difficult to take account of the multiple uses of different devices for different reasons and at different times, for example, at school, with friends, with family and alone (Gottschalk, 2019), and to make measured decisions regarding considerations beyond quantity, such as context, content and connections (Blum-Ross and Livingstone, 2016). As Baroness Kidron, Founder and Chair of the 5Rights Foundation, states:

'So often, the digital world of children is stated in binaries – on or offline, good or bad actors, opportunity or harm – but the lived reality of children is much more complicated. Where on and off can be seamless and simultaneous, too much of a good thing can be bad, or something meant for one purpose can be hacked for another: sometimes with harmful outcomes, and sometimes joyous' (Kidron, 2021a, p. 4).

Concerns cluster round the links between screen time and obesity, mental health problems and poor educational achievements, but the evidence for direct causal effects is contested (Royal College of Paediatrics and Child Health, 2019). Other concerns include the effects of digital technology on brain, cognitive, socio-emotional and physical development (Royal College of Paediatrics and Child Health, 2019). In addition, there are concerns about addiction to video gaming; the 2019 version of the Internet Classification of Diseases (ICD-11) includes 'gaming disorder' and the USA Diagnostic and Statistical Manual (DSM-V) (APA, 2013) includes 'internet gaming disorder', but these additions are controversial (UNICEF, 2019). Beyond the problems of excessive use, studies have shown benefits of video games, including attention, working memory and spatial skills (Gottschalk, 2019), creativity and imagination (Marsh *et al*., 2018) and a range of cognitive, emotional and social benefits (Gray, 2018). It is important to note here that children do not see digital and other forms of play as separate but interwoven (Marsh *et al*., 2016; Potter and Cowan, 2020; Willett, 2014).[34]

In terms of online safety, key concerns include cyberbullying, sexting and sexual harassment, sexual solicitation and grooming, online pornography, hacking and cybercrime, data protection and radicalisation (Gottschalk, 2019; Livingstone *et al*., 2017). These and other risks were categorised by the EU Kids Online project to inform policymaking, using an approach that sought to move beyond treating children as solely vulnerable victims to be protected at all costs, acknowledging also the opportunities available and children's own agency and competence. It proposed a 3Cs framework of content, contact and conduct, across four dimensions of aggressive/violent, sexual, value-based or commercial (Livingstone and Stoilova, 2021; Livingstone *et al*., 2011;). Later, in the same project, a fourth risk of 'contract' was added to reflect the risks of exploitation of children's data for marketing, identity theft, fraud or scams; and more recently the CO:RE (Children Online: Research and Evidence) project has also recognised cross-cutting risks across some or all of the other categories and dimensions relating to privacy, physical or mental health, inequalities or discrimination. As Livingstone and Stoilova (2021, p. 10) highlight:

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[34] These issues are revisited in chapters 3 and 4.

'Risk is recognised as relational, emerging from the dynamic interaction between the child's agency and the agency of others operating in the digital environment (including through automated processing such as algorithms and as embedded in digital design and operation).'

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In their 2017 literature review of children's online activities and associated risks Livingstone *et al.* report that at that time there had been little increase or decrease in online risk in recent years, although there were some indications of a rise in hate and self-harm content. They also report that it is not possible to determine whether the internet has increased the overall amount of risk children face as they grow up, or whether the internet instead provides a new location for risk experiences, albeit one that alters and may amplify the consequences (Livingstone *et al.*, 2017). For example, Ofcom (2021) reports that 30% of eight to fifteen-year-olds have experienced bullying but of those that had, most said it was more likely to happen face-to-face (61%), followed by online gaming (48%), via messaging apps (29%) or social media (24%) (Ofcom, 2021). The majority of children using social media (the most commonly cited sources of harm) also report feeling pressure to be popular, but children may also experience similar levels of social pressure offline (Ofcom, 2021).

The potential harms that children may be exposed to online must also be understood in the context of wider society, where structural issues serve to position some children as more at risk than others (Livingstone *et al.*, 2017). This includes girls, children from poorer households, disabled children and those from marginalised groups (Ofcom, 2021; UNICEF, 2017). For example, in respect of sexting and sexual harassment, Livingstone *et al.* (2017, p. 3) conclude that 'most children experience neither; among those who do, such experiences are often associated with developing intimate relationships as teenagers'. However, they qualify this by suggesting that 'the prevalence of gender inequalities, sexual stereotypes and coercion, and a lack of understanding of consent all serve to blur the boundaries between sexting and harassment' (*ibid*.). As a result, girls are at greater risk. Misogynistic and racist behaviour, enabled by online anonymity, have also been cited as particular problems within the gaming community (Loebenberg, 2018; Richard, 2017; Verdoodt *et al.*, 2021). This includes children reporting hearing racist abuse during live gaming (Gordon, 2021), and incidents of racism (particularly against Asian players) increasing during the COVID-19 pandemic (Kuang, 2020). It is important to recognise that the perpetrators of such online behaviour may well be adults (Loebenberg, 2018).

The consensus appears to be that those already vulnerable offline are more likely to be vulnerable online, whilst others 'who can cope with a degree of online adversity, for whatever reason, may become digitally resilient' (Livingstone *et al.*, 2017, p. 3). However, these trends and the influence of the internet are not clear cut. For example, social media may exacerbate existing mental health difficulties, meaning some young people feel even more isolated, depressed or anxious, but it may also be helpful, making others feel less lonely, as well as providing a source of support, enjoyment and laughter (Blum-Ross *et al.*, 2018).

The reported prevalence of potential harmful online experiences also varies. For example, when comparing two reports from Ofcom, the percentage of 12- to 15-year-olds reported as having a negative or 'potentially harmful' online experience in the previous 12 months ranged from just over half (Ofcom, 2021) to more than 80% (Ofcom, 2020). The difference in these results is likely due to the particular questions posed to participants and what is deemed to be a potentially negative or harmful experience online. However, in both cases many of children's most common concerns were associated with the conduct of other people online and content they might view (Ofcom, 2020, 2021). Whilst unwanted friend requests or follows was one of the more common experiences (Ofcom, 2020, 2021), three quarters of 12- to 15-year-olds were aware of how to block these. Adults and children were most concerned about exposure to bullying, abusive behaviour or threats, with these less common occurrences seen as having the most harmful impacts, along with hate speech and content promoting self-harm (Ofcom, 2020).

10% of 12- to 15-year-olds said they often witnessed hateful content online. Children of this age were also reported as being more likely to experience potential harms online than adults, but this may be due to spending more time online and being early adopters of new sites and apps, where potential harms are more often experienced (Ofcom, 2020).

Beyond the nefarious actions of other people online and children's access to potentially harmful content, children, parents and other adults raise concerns about the privacy of children's personal information online and children's exposure to exploitative practices by those who seek to benefit financially from children's use of digital devices and the internet (Blum-Ross *et al*., 2018; Chaudron *et al*., 2017; Colvert, 2021; Livingstone *et al*., 2017; Loebenberg, 2013; Ofcom, 2021; Ruckenstein, 2013; Verdoodt *et al*., 2021).

In moving beyond harm to an acknowledgement of the importance of children's access to digital resources, there is concern regarding the inequalities of the 'digital divide', particularly for poor children and those living in rural areas with poor connectivity. The pandemic highlighted unequal access for children as learning moved online (Coleman, 2021). In March 2020, 11% of households had no internet access, but in 2022 that figure was 6%, with a further 5% of households relying on mobile data, a dongle or USB (Ofcom, 2022). In Wales, 24% of social housing tenants do not have internet access (Welsh Government, 2020b). As well as connectivity and cost of devices and connections, digital skills are also part of digital exclusion (Coleman, 2021; Welsh Government, 2020b).

Mental health

It is difficult to make accurate national assessments of children's mental health, as there is little consistency between studies in terms of what is measured and how, characteristics of research participants and many other variables. Analysis by Pitchforth *et al*. (2019) of mental health trends over time across the four UK countries found a striking increase in reported prevalence of long-standing mental health conditions among children and young people (in England 0.8 to 4.8% over a period of 19 years, Scotland 2.3 to 6.0% over 11 years and Wales 2.6 to 4.1% over seen years), although little change in responses to questionnaires relating to psychological distress and emotional wellbeing. Langley *et al*. (2017) found, drawing on studies using parental responses to the Strengths and Difficulties Questionnaire (SDQ) between 2007/8 and 2012/13, that rates of mental health problems for children in Wales aged four to twelve years were stable or falling. A Millennium Cohort Study (Patalay and Fitzsimmons, 2020) found a high prevalence of psychological distress amongst 17-year-olds (16.1%), with poorer mental health experienced by females, white adolescents, sexual minorities and those from lower income households. One pre-pandemic study of secondary school pupils reports 19% as having high levels of symptoms of mental ill-health (Page *et al.*, 2021). A significant increase in mental health problems such as anxiety and depression during the COVID-19 pandemic has been reported, particularly for socio-economically deprived children and those already struggling (although this was not uniform, and some children reported being happier). However, again, researchers urge caution in interpreting the data (Cowie and Myers, 2020; Ford *et al*., 2021; UNICEF, 2021).

It is not possible to tell whether any increase in prevalence of mental health problems is due to actual increase or to higher levels of reporting (Collishaw, 2015), or to the performativity of dominant medical terms, classifications and questionnaires. Kvist Lindholm and Wickström (2020) show how the symptoms listed in self-reporting questionnaires aiming to assess children's mental health (for example, feeling low, feeling

anxious, feeling irritated) are psychopathologised and operate as diagnostic categories of mental ill-health. Such classifications affect how children see themselves; at the same time, children themselves 'appropriate, reject and give new meanings to' such labels (Kvist Lindholm and Wickström, 2020, p. 29), in ways that move beyond symptoms residing exclusively inside their own minds and towards a more nuanced and contextualised appreciation of degrees of anxiety and depression and the conditions that contribute to such feelings. In this way, the concepts become cultural rather than diagnostic categories.

Furthermore, the United Nations Special Rapporteur on health argues that the dominant biomedical model of mental health diagnoses as 'disorders' or 'diseases' medicalises what are often human responses to harmful determinants of distress such as poverty, inequality, violence and discrimination (UN General Assembly, 2020).[35]

Physical activity and obesity

Overall, 51% of children in Wales aged three to seventeen are reported as meeting the guidelines of 60 minutes of moderate to vigorous intensity physical activity a day, although this falls to 14 to 17% of children aged eleven to sixteen years. However, the robustness of data relying on child or parent reports in surveys has been questioned (National Assembly for Wales, 2019). Sedentary behaviour, particularly screen-based, is linked to higher risk of being overweight and also to some mental health issues such as hyperactivity and lower psychological wellbeing (Suchert *et al*., 2015). Furthermore, sedentary behaviour patterns continue from childhood into adulthood (Janssen *et al*., 2016). Using parental surveys, Janssen *et al*. (2016) found that the biggest increases in sedentary behaviour occurred between the ages of nine and twelve years, lower than earlier studies. It is worth noting that this is before many children are afforded permission to play outside without adult accompaniment (Bhosale *et al*., 2017; Dodd *et al*., 2021a; Jelleyman, 2019; Schoeppe *et al*., 2016; Shaw *et al*., 2012).[36] A systematic review of international trends in children's cardio-respiratory fitness between 1981 and 2014 found a sharp decline over that period (Tomkinson *et al*., 2019). With most countries the decline plateaued or even reversed after 2000, although this is not the case in the UK and other countries with high levels of income inequality, where fitness levels continue to decline. Similarly, Love *et al* (2019) found that children's levels of moderate to vigorous physical activity increased in line with socioeconomic status, with lower levels in some minority ethnicities, mirroring parallel inequalities in childhood obesity.

The Child Measurement Programme for Wales measures the height and weight of children in reception year (age four to five years). It found that in 2018/2019 26.9% of children in Wales of this age were classified as overweight or obese (compared with 22.6% in England and 22.4% in Scotland), with a significantly higher prevalence for children living in areas of high deprivation (Public Health Wales, 2021). The English Child Measurement Programme (which measures Year 6 as well as reception year children) found that between 2019/2020 and 2020/2021 obesity prevalence had risen amongst reception year children from 9.9% to 14.4%, and amongst Year 6 children from 21.0% to 25.5%, with children living in the most deprived areas more than twice as likely

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[35] Critiques of the biomedical model and their influence on policy and professional responses are revisited in section 2.3.6.

[36] See also chapter 4.

to be obese than those in the least deprived areas (NHS Digital, 2021). Tsenoli *et al*. (2021) outline how the COVID-19 pandemic and associated mitigating measures of lockdown and school closures present significant biopsychosocial challenges for weight management, including, but not limited to, reduced physical activity, food insecurity, eating more, eating less healthily, isolation, anxiety and boredom.

Childhood obesity is 'closely associated with negative social and health outcomes including poor self-esteem, academic performance and impaired cardiovascular health' (Lee and Blumberg, 2019, p. 44) and is likely to continue into adulthood, carrying greater risk of non-communicable diseases such as Type 2 diabetes, cancer and cardiovascular disease. Furthermore, most strategies to reverse both individual and population level obesity have very low success rates: obesity rates continue to rise and once individuals have become obese, it is rarely reversible (*ibid.*).

Given the links between sedentary behaviour, low levels of physical activity and obesity, it is not surprising that children's active play has become a public health concern (Alexander *et al*., 2014, 2019; Clark and Dumas, 2020), with a growth in studies showing the benefits of and seeking to increase children's active outdoor play (for example, Audrey and Batista-Ferrer, 2015; Gray *et al*., 2015; Hyndman *et al*., 2014a; Lambert *et al*., 2019; Lee *et al*., 2021; Mills and Burnett, 2017; Moser *et al*., 2021; Ridgers *et al*., 2010; Talarowski *et al*., 2019; Taylor *et al*., 2014; Tremblay *et al*., 2015; Umstattd Meyer *et al*., 2019; Wood *et al*., 2014). These studies are considered further in chapters 3, 4 and 5. Such public health messaging again places a sense of responsibility onto parents and caregivers and is often in tension with powerful arguments regarding keeping children safe (Clark and Dumas, 2020).

The established narrative regarding obesity is that it is a simple matter of balancing calorific intake and output. The World Obesity Forum, World Health Organisation, World Economic Forum and others argue that this places unfair and ineffective medical and moral responsibility on individuals and obscures the complex and interrelated processes, many of which are beyond the control of individuals, including epigenetic, biological, psychosocial and wider environmental and market factors such as the cost and availability of healthy and unhealthy foods and the nature of the built environment (Ralston *et al*., 2018). Epigenetic and environmental factors can also include endocrine-disrupting chemicals (EDCs), such as various plastics, pesticides, drugs, metals and other chemicals, that can be obesogenic, not necessarily directly or in singular ways, but through affecting development in varied ways that can lead to obesity in later life and can also be heritable (Lee and Blumberg, 2018).

There is a growing number of critiques of the focus on weight as an indicator of current and future health and what this dominant narrative performs. These critiques range across ideological, empirical and technical domains and include, neoliberal and biopolitical responsibilisation that plays out in classed, gendered and racialised ways; the perpetuation of inaccurate and reductionist representations of the relationship between body weight and health; the ineffectiveness of interventions; and a range of psychological, behavioural, physical and social harms to those who are labelled as, and blamed and shamed for being, overweight or obese (Medvedyuk *et al*., 2018; O'Hara and Taylor, 2018). Warin (2015) suggests that, whilst important, much of the critique of approaches to obesity as a biomedical crisis unwittingly creates binary oppositions, in that it explores social constructions and the performativity of obesity narratives in ways that are irreconcilable with biological issues. In response, she offers a relational approach that can work with both the biomedical and social, through a material focus on the body. Bodies and environment/nature are not separate but mutually constituted: such a perspective can pay attention to the socio-political conditions for health.

Such socio-political conditions include the role of a global food industry that produces and promotes cheap, processed foods high in sugar, salt and saturated fats, creating 'food environments where it is difficult not to overconsume calories' (Tan *et al*., 2020, p. 1). This is compounded for children living in the most deprived areas, partly because healthy foods are three times more expensive than unhealthy foods calorie for calorie, and the poorest fifth of UK households would need to spend 40% of their income on food to meet guidelines for healthy eating, whereas the figure for the richest fifth is 7% (The Food Foundation, 2021). The gap in obesity between

the least and most deprived children widened from 8.5% in 2006/7 to 13.5% in 2017/18 (Davies, 2019). Such differences have been compounded by the COVID-19 pandemic, where higher prevalence of food poverty and insecurity increased the likelihood of eating unhealthily, and where the food industry launched campaigns that were thinly veiled marketing opportunities, such as one offering NHS staff discounts off fast foods such as doughnuts (Tan *et al*., 2020).

Youth crime and youth violence

Knife crime and county lines drug dealing are two aspects of youth violence and crime that feature heavily in the media and have been the subject of concern for policy makers (Densley *et al*., 2020; Harding, 2020; Windle *et al*., 2020). Fear of crime is often given as a reason to curtail children's freedom of movement and hence their ability to play out in their neighbourhoods (Eyre *et al*., 2014; McDonnell and Sianko, 2021; Oliver *et al*., 2022).[37] In addition, fear of criminalisation also affects children's ability to play out: poor parents and parents of colour can limit their children's freedom to play out through fear both of their children's criminalisation and of their own as parents (Elliott and Reid, 2019). It should also be acknowledged that youths caught up in gangs and other forms of youth violence are children themselves with a right to play, although there is a paucity of research on this.

The Wales Violence Prevention Unit (2020, p. 4) states, 'Serious youth violence … [is] likely to be characterised by knife and gun crime, and exploitative crimes such as modern slavery, sexual exploitation, and crimes relating to drug markets'. The Youth Justice Board (2021) statistics show a 75% decrease in proven crimes committed by children (aged 10 to 17) since 2010, although there has been a significant increase in violent crimes as a proportion of those crimes (from 20% in 2010 to 31% in 2020). Overall, violent crime has fallen in England and Wales and in 2017 was 40% lower than in 2010, but offences involving knives and firearms have increased since 2014 (HM Government, 2018), with both victims and perpetrators at younger ages. Use of knives and other sharp objects is by far the most common homicide method (ONS, 2021a). The number of knife crime fatalities in England and Wales in the year ending March 2018 was the highest since records began in 1946 (ONS, 2019), with the second highest annual total in the year ending March 2020 (ONS, 2021a). Drawing on the statistics, Densley *et al*. (2020, p. 6) state, 'young men … have been killing each other with knives and firearms at unprecedented rates'. In 2017, the number of young people in Wales aged 15 to 19 injured by a sharp object was 33.8 per 100,000, and for those aged 10 to 14 it was 13 per 100,000, slightly lower than the other three UK nations (Royal College of Paediatrics and Child Health, 2020).

Factors contributing to the rise in serious youth violence include 'toxic environments for children (created by a decade of austerity), fear of violent victimisation, cuts to police numbers and budgets, and a lack of trust in government, at times linked to ineffective and discriminatory policing' (Densley *et al*., 2020, pp. 4-5). Harding (2020) suggests that the causes of knife crime are more nuanced than general theories of fear, protection and fashion seen in much of the policy literature. In his overview of current literature, contributory factors also include poverty, inequality, disaffection, peer pressure and the cultural context of 'street life', the absence of police authority, the importance of respect and cultural capital afforded to carrying a weapon, hypermasculinity and normalisation. The young men themselves argue carrying and using a knife is a legitimate and rational response to the conditions of their lives that can help in navigating a 'landscape of risk' (Harding, 2020, p. 37) and offer some sense of control. The context for gang culture and knife crime is an evolving landscape particularly through the rising use of social media.

There is growing attention to the criminal exploitation of children, where children are coerced into criminal activity, highlighting the blurred boundaries between victim and perpetrator, between children at risk and children as risk. The increase in child criminal exploitation in the UK has been aided by austerity measures, cuts in public

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[37] This issue is explored in more detail in chapter 4.

services including youth work provision, and the lack of appropriate accommodation for those leaving care or custody (Maxwell *et al*., 2019). A number of factors that make children susceptible to criminal exploitation, include 'poverty, abuse, neglect, behavioural difficulties, school exclusions, special educational needs, children looked after, those who are missing, drug users, and those with physical or mental health issues' (Maxwell *et al*., 2019, p. 9). Research into the involvement and experiences of children in county lines drug dealing shows how, once lured in, children are subjected to coercive control, physical violence, intimidation, emotional and sexual abuse, and debt bondage (Windle *et al*., 2020). Involvement of children in county lines drug dealing is classified by the Crown Prosecution Service (2017) as child trafficking and exploitation and the Modern Slavery Act 2015 can be used to secure convictions against those who recruit children. However, despite authorities' awareness of these children's exploitation, the justice system is more likely to criminalise than safeguard them (Windle *et al*., 2020).

Of relevance here is the concept of the 'school to prison pipeline' (for example, Bryan, 2020; Crenshaw *et al*., 2014; Dowd, 2016; Katz, 2019), where poor children, and particularly children of colour, attend schools that have little public investment in educational resources (but significant expenditure on testing regimes and private surveillance services), limiting possibilities for educational engagement and increasing the likelihood of progressively punitive responses, setting in motion a trajectory that often ends in incarceration. The concept of the 'school to prison pipeline' began in the USA in the 1980s and 1990s but is increasingly apparent in the UK. In her study of the pipeline in Britain, Graham (2016) highlights how education itself perpetuates inequalities in the world of work, yet the idea of education as meritocracy remains powerful and further feeds social inequality – that is, the belief that individuals reach high paid positions of power and influence through personal effort, and that those who leave school without qualifications or who are excluded have only themselves to blame. She describes how the numerous disciplinary practices in school, which start at increasingly early ages, impose middle class cultural values and expectations, and discipline alternative cultural behaviours such that poorer children of colour are expected to be, and soon become labelled as, disruptive. Some examples include styles of walking, hair styles, and sterner punishments for talking out of turn in class or fighting in the corridor. Black children are therefore excluded significantly more often than other ethnic groups, both formally and through informal exclusions, including the use of isolation at school. Entry into alternative education (including Pupil Referral Units) further separates children from the rest of society and building their networks of other children 'like them'. Exclusion opens up opportunities for involvement in street and other forms of crime, often seen as a rational choice given the lack of opportunities for employment. In addition, the use of non-teaching staff in disciplinary processes in schools has expanded, including greater use of police officers in schools, initially to reduce crime and antisocial behaviour but increasingly the role has extended to identifying children 'at risk' of offending (Graham, 2016).

We return to these adult concerns regarding children in section 2.3.6, after a more comprehensive review of policy literature, to explore the potential of intersections of policy responses to these issues and the literature in envisioning possible futures. Chapter 4 also considers some of these issues from the perspective of children's play patterns.

Public policy and neoliberalism

Since the 1980s, neoliberal governments have progressively introduced the language and practices of the market into public policy and public services and this spawned a range of governmental technologies of regulation including monitoring, targets, performance indicators and output regulation (Bovaird, 2014; Gough, 2012; McGimpsey, 2017; O'Flynn, 2007). In more recent times, there has been a shift towards a public governance focus on outcomes rather than outputs, in turn generating approaches to evaluation that seek to evidence the problematic causal relationship between input, output and outcome (Bovaird, 2014; Edwards *et al*., 2022). This can be seen in the growth of the UK government supported 'What Works' centres charged with generating evidence for interventions (both from systematic reviews of research and through evaluation of initiatives) and disseminating and promoting this evidence (The What Works Network, 2018). The Wales Centre for Public Policy is an associate member of the What Works Network, aiming to generate evidence to support policy making in Wales. Critics suggest that a focus on 'scientific' evidence for outcomes not only obscures but perpetuates

structural inequalities (Axford and Morpeth, 2013; Cheney, 2019; Edwards *et al*., 2016; Edwards *et al*., 2022); that the process of policy making often seeks evidence to support ideological or popular programmes, a process dubbed 'policy-based evidence' (Cairney, 2019); or that the ever-increasing amounts of data gathered on populations become decontextualised and feed into systems via data analytic companies that then identify them as targets for further intervention (de St Croix *et al*., 2020; Edwards *et al*., 2022). In considering why social studies of childhood are not making the desired impact on policy making for children, Cheney (2019) suggests that quantitative, positivist and developmentalist research models that are used as evidence are favoured by policy makers because they feel 'harder' (more 'masculine') and offer numbers that feel like the truth.

An example of this is the dominance of the concept of adverse childhood experiences (ACEs) in policies – including its central place in the Well-being of Future Generations (Wales) Act 2015 (see section 2.3.4) – and in funding for research. A systematic review of ACEs research studies carried out in 2017 identified 11,621 studies for potential inclusion (Hughes *et al*., 2017), reflecting the significant resources invested in such research. ACEs include forms of abuse, family breakdown, and living with family members who have mental health problems, criminal records or alcohol or substance misuse. The literature on ACEs asserts that exposure to four or more of these experiences produces toxic stress that has been shown to have a causal link with a range of poor biopsychosocial outcomes, for example, heart disease and diabetes, obesity, depression, poor academic achievement, substance misuse and imprisonment (Center on the Developing Child, 2018; Hughes *et al*., 2017; Winninghoff, 2020). Paying attention to such issues has given rise to professional responses to children's challenging behaviour in school and elsewhere that acknowledge the problems and traumas some children face and appreciate the value of kindness and flexibility and the importance of supporting children to develop resilience (Winninghoff, 2020).

Nevertheless, the concept of ACEs is open to critique. Kelly-Irving and Delpierre (2019, p. 451) note that:

'While the epidemiological research … on ACEs may be useful evidence for population-level or structural policies, it is an insufficient and ill-adapted tool for implementation by social workers, medical practitioners, child protection workers, and likely to stigmatise families and children.'

Others argue that the mathematical framing (lists of specific of ACEs, large-scale surveys, clear sampling methods and control groups, surveys, statistical methods and analyses that validate cause and effect claims) (see, for example, Bethell *et al*., 2017) reduces the complexities of such experiences to an ACEs 'score' (White *et al*., 2019; Winninghoff, 2020). One systematic review used 'population-attributable fraction methods' and a 'human capital approach' to calculate that 'the annual costs from the effect of ACEs on the health outcomes measured were US$581 billion in Europe (equivalent to 2.67% of gross domestic product) (Bellis *et al*., 2019, e518). Whilst acknowledging the important role of 'hard' data, statistical methods and evidence in policy making, critics highlight several methodological flaws. One is that measuring ACEs requires them to be static and clearly defined, whereas the reality of children's lives is very different and such experiences are dynamic and vary across factors such as severity, duration and timing (White *et al*., 2019). Another is the narrow focus on the household and family, in line with the linked 'first three years' movement that sees parents as both cause and solution to such problems, with little attention paid either to broader contextual experiences or to structural socioeconomic and political factors (Edwards *et al*., 2019; White *et al*., 2019; Winninghoff, 2020), 'rather than, say, dealing with poverty' (Edwards *et al*., 2021, p. 269). Qualitative research that looks in more detail at what the numbers exclude and include, as well as contextualisation of data, is often 'seen as a distraction by policymakers who require massive amounts of quantitative data and "representative samples" that can show them the "progress" and "effectiveness" of policy decisions that reinforce hegemonic developmental discourses' (Cheney, 2019, p. 98).

Understandings of the value of play in social policy

It is easy to see, within this frame, that something as seemingly frivolous and irrational as children's play might be side-lined or constrained in policy unless it can be enlisted within the overall project of preventing social problems and producing future citizens (Lester and Russell, 2013b). The history of play provision, and particularly of school and municipal playgrounds, is broadly one of containment, keeping mostly working-class children off the streets, and of the hope for strengthening of both bodies and morals (Frost, 2012; Hahn, 2018; Pascoe, 2017; Russell *et al*., 2021; Woolley, 2008). As such it is what Ryan (2014, 2020) terms a biosocial technology and mode of power. Historically, playgrounds were places where children from poor families could be 'civilised', with great attention being paid to playground design informed by theories from the growing child development studies movement. The technology of design, intended to support the kinds of playing needed at different stages of development to build both muscles and morals, enacted an intangible power over children's ostensibly free play. Notwithstanding such intentions, once the idea of playgrounds had become established, they were popular with children and families, being seen as something that therefore should be provided (Russell *et al*., 2021).

Staffed play projects can also be located within such biosocial technologies in that they officially endorse the intrinsic value of play and children's freedoms to play in their own way, as enshrined in the Playwork Principles (PPSG, 2005), and at the same time are dependent on public funding that requires instrumental outcomes (Russell, 2018a). For example, Gill (2014a) shows evidence of how investing in play provision can reap returns on investment in terms of children's development, community cohesion, reducing antisocial behaviour, reducing obesity, reducing inequalities and helping to create healthier places. Two cost-benefit analyses of adventure playgrounds and of playwork-staffed after school clubs yielded very different results, that can largely be attributable to methodological differences, but both found economic value for the social return on investment in such playwork services (Matrix Evidence, 2010; The Means, 2016).[38]

Play has also been harnessed for instrumental uses in educational policy, particularly in early years education and care. In Wales, the Foundation Phase is an experiential, play-based curriculum for children aged three to seven years, where 'children learn through first-hand experiential activities with the serious business of "play" providing the vehicle' (Welsh Government, 2015, p. 3). Such an approach marks a move away from a focus on teaching to heavily criticised stages of development towards a more holistic and experiential approach to learning through play, although developmental narratives remained in the first framework documentation (Welsh Assembly Government, 2008), sometimes in tension with the newer socio-cultural intentions (Maynard *et al*., 2013; Waters, 2016). The curriculum operates across seven areas of learning, with the first area (Personal and Social Development, Well-being and Cultural Diversity) being at the heart of the curriculum and operating across the other six (Welsh Government, 2015). Research that has focused on the instrumental benefits of a play-based approach found that the approach supports higher levels of pupil engagement and potentially deeper learning (Wainwright *et al*., 2020) and supports most aspects of physical literacy (Wainwright *et al*., 2016). However, it has not managed to address socio-economic inequalities in attainment (Power *et al*., 2020).

Beyond the Foundation Phase, play and play-based learning is now promoted throughout the whole of the Curriculum for Wales 2022. Additional guidance on pedagogy within the curriculum, published online in January 2022 (Welsh Government, 2022a), lists play, play-based learning and being outdoors as key features of successful pedagogy throughout school. Play is presented as a right and as something that learners take seriously with the tension between play's intrinsic and instrumental value being recognised:

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[38] These studies are discussed in more detail in chapter 5.

'Play and play-based learning supports holistic development across the curriculum. It should be valued by all practitioners as both an end in itself and as something that they should observe closely with the clear aim of seeing how it can enhance learning' (Welsh Government, 2022a).

It is important to note that instrumental and intrinsic value are not mutually exclusive (Beunderman, 2010; Gheaus, 2015). Nielsen (2021) argues that governments have a duty to protect children's capability to play for both its intrinsic and instrumental value, making the case that such a duty falls on public health systems.

Looking more broadly than education, the Welsh Government's approach to policy making generally and also specifically for children's play, has taken a very different path from the UK government since devolution, and this is considered in section 2.3.3.

2.3.2 Social policy, children and austerity

Since the financial crisis of 2008 and the ensuing politics of austerity, research has paid particular attention to the connections between social policies affecting children and the forces of neoliberalism and new forms of capitalism, including accelerated accumulation, cuts to welfare and public services (retrenchment), increasing precarity in the labour market and increasing inequalities (see, for example, Andrews and Duff, 2020; Hart and Boyden, 2019; Katz, 2018, 2019; Levitas, 2012). Against a rise in the wealth and numbers of the super-rich, with the pandemic year 2019-2020 showing the biggest increase in new UK billionaires since records began (Watts, 2021), the number of children living in poverty in the UK stood at 4.3m in 2019-2020, 31% of children overall and 46% of children from Black and minority ethnic groups (Child Poverty Action Group, 2021), up from 17.5% overall in 2010 (Bradshaw and Main, 2014). Cuts to universal public services and public sector job losses have disproportionately affected women and poorer families, creating a perfect storm for the further dispossession of the poor (Levitas, 2012; McDowell, 2017; Ridge, 2013). Children have been the main victims of these austerity measures (Bradshaw and Main, 2014; Lister, 2019). The Children and Families (Wales) Measure of 2010 outlined the broad aims, strategies and services to tackle child poverty in Wales, with the aim, in line with the UK government's Child Poverty Act 2010, to eradicate child poverty by 2020. In the UK, the Child Poverty Act 2010 was abolished in 2016, but the Welsh Government has retained its efforts to address child poverty; however, it remains stubbornly high (Welsh Government, 2019).

The Welsh Government's approach to austerity differed from the UK government's, in that, despite cuts in the overall devolved budget from Westminster, the decision was made in the early days to preserve many universal services and the budgets of local authorities, which were seen as 'the delivery arm of much of the welfare state – in housing, education, social services and so on' (Drakeford, 2012, p. 458). However, despite this early protection, local authorities in Wales have faced significant budget reductions (Welsh Local Government Association, 2015) and have responded to this through three broad strategies: efficiencies, investment and retrenchment (Downe and Taylor-Collins, 2019).[39]

McGimpsey (2017) suggests that austerity alone cannot account for the shifts in UK policy making that emerged following the financial crisis. Prior to this, policy making from the 1980s onwards was often described as 'neoliberal',[40] with a marketisation and commodification of public services bringing changes to the relationships

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[39] See section 2.3.3 for more on the Welsh Government's policy principles and narratives.

[40] See section 2.3.1.

between 'consumer citizen' (with the notion of 'choice' in public services), and the state as purchaser of services. Grants to voluntary sector organisations were replaced with contracts to deliver specific services and private sector bodies were increasingly commissioned to deliver aspects of public services. These contractual relationships were regulated through New Public Management technologies that measured performance and created information (such as league tables) for the consuming public. Following the financial crisis, McGimpsey (2017) suggests that a particular late-neoliberal policy formation emerged through a mix of austerity, social investment and localism/co-production. These last two are considered in more detail here.

Social investment as a policy formation

Over the last two decades there has been a shift towards 'social investment' and away from traditional welfarist notions of social security, or as Hemerijck (2017, p. 12) puts it, 'away from *freedom from want* towards *freedom to act*' (emphasis in the original). Emerging from neoliberal policy-making that focused on a quasi-market model described above, social investment brings the logic and the language of capital into the relationship between state, service providers and citizens (some aspects of which are beyond the scope of this review, so this is necessarily a brief and simplified description). Within this formation, children are seen as human capital (Bonoli *et al.*, 2017; Burman, 2019).

Promoted by supranational bodies such as the Organisation for Economic Co-operation and Development (OECD) and the European Union (EU), its basic principle is that in an uncertain world of new social risks, demographic changes and a post-industrial labour market, investing in an economically productive citizenship will yield economic and social returns and address the problems of a struggling compensatory welfare state (Fleckenstein and Lee, 2020; Hemerijck, 2017; Jenson, 2006; Kuitto, 2016; McGimpsey, 2017). The justification rests on the premise that:

'the fiscal resources for welfare provision are ultimately generated by productive workers … investing in children, through high-quality education and affordable childcare, are critical means to achieve a sustainable welfare state' (Hemerijck, 2017, p. 9).

Investing in universal services such as early years education and childcare is intended to both support working families (and particularly mothers) in their participation in the labour market and also to 'further the accumulation of human capital of children' (Bonoli *et al.*, 2017, p. 68), through supporting their development, thereby both preparing future productive citizens and reducing future welfare costs. As well as universal services such as childcare and education, the formation can be seen in targeted early intervention programmes and preventative services (de St Croix *et al.*, 2020; Kjørholt, 2013). Technologies of evaluation in the form of toolkits to measure social return on investment (SROI) calculate the amount saved through the initial investment, building data on service users that further contributes to 'the financialisation of policy and public services' (de St Croix *et al.*, 2020, p. 452).

Perversely, however, universal services such as early childcare, education, health and transport can be disproportionately taken up by middle class and wealthier families. For example, take up of early childcare in the UK is used by the highest-income families over four times more than by the lowest-income families. Such a discrepancy works not only in terms of failing to realise the policy intention of addressing inequalities and intergenerational poverty, but actually increases such inequalities (Bonoli *et al.*, 2017).

Localism, partnerships and responsibilisation

The localism agenda aims to reconfigure the relationship between state and citizen from a hierarchical to a networked one (Pill, 2022) through encouraging greater public participation in public services, for example through participatory budgeting, participation in the design and/or delivery of public services, or transfer of assets or managerial functions to community organisations (Fox *et al*., 2021; McGimpsey, 2017). Fox *et al*. (2021) outline the benefits of such changing relationships and partnerships in terms of their ability to respond effectively to the challenges facing governments, including budget cuts and changing public expectations of governments and public services. Much of the literature addresses the tensions between statutory responsibility and voluntary initiative (Nichols *et al*., 2020), 'austerity localism' and 'progressive localism' (Findlay-King *et al*., 2018), empowerment and co-option (Tabner, 2018), and state-resourced responsiveness or state-retrenched responsibilisation (Pill, 2021). Underpinning the rhetoric, and also the success, of greater public participation in public services are concepts of community skills, strengths and resilience, potentially depoliticising the role of austerity politics in the rise of inequalities and poverty (Tabner, 2018). As Pill (2021, p. 2) notes, 'through promoting the values of citizen self-reliance, the state is reframed as a facilitator of self-provisioning rather than as a service provider'. However, for collaboration and co-creation of public services to be mutually successful, roles and relationships of state partners (often local governments), local intermediaries (such as voluntary organisations operating at neighbourhood level) and residents need to be clear (Pill, 2021) and not used merely for state withdrawal from provision (Fox *et al*., 2021).

2.3.3 Public policy and children's play in Wales

Since its inception in 1999, the Welsh Assembly Government (now the Welsh Government) and associated institutions have actively developed broadly social democratic narratives that set them apart from the UK government, including partnership working rather than competition between key stakeholders, traditional welfarism and universality of services, a commitment to equality of outcome, and a placing of the citizen at the centre (Downe *et al*., 2010; Drakeford, 2012; Guarneros-Meza *et al*., 2012; Pearce *et al*., 2020). First Minister Rhodri Morgan outlined these differences in an oft-cited speech in 2002 that set 'clear red water' between Welsh and English political ideology at a time when New Labour was in power in the UK government (Andrews, 2022; Jones, 2019; Morgan, 2002; Pearce *et al*., 2020). However, whilst political ideology and the design of specific policies may have had a 'moment of alignment' initially (Pearce *et al*., 2020, p. 7), over time tensions have arisen within some policy initiatives between 'political rationalities' and 'governmental technologies' (Guarneros-Meza *et al*., 2012), with the latter coming to bear 'the hallmarks of neoliberalism' (*ibid*., p. 6) as well as social investment policy formations.[41] Such tensions have emerged for a range of external and internal reasons, including the relationship with the UK government, shifting constitutional arrangements and the imposed period of austerity following the financial crash of 2008. For example, Pearce *et al*. (2020) highlight the complex challenges for Wales as a devolved government. Their analysis of the Communities First initiative shows how it shifted over time from a focus on a process of community development and capacity building, working in equal partnerships with communities, voluntary and statutory organisations, towards a top-down accountability framework with prescribed outcomes, leading to 'communities being held accountable for the delivery of an increasingly state-led agenda' (Pearce *et al*., 2020, p. 17).

The Welsh Government firmly rejected the 'market-driven emphasis on school diversity and parental choice that prevails in England in favour of a fully comprehensive system' (Power *et al*., 2020, p. 318). Nevertheless, the four purposes of the Curriculum for Wales display elements of the future-focused social investment formation, for example in aiming to develop 'enterprising, creative contributors, ready to play a full part in life and work' (Welsh Government, 2020a, p. 11). Similarly, the concept of social investment is evident in Flying Start, the

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[41] See section 2.3.2 for a discussion of the social investment policy narrative.

Welsh Government's flagship early years programme, in that its stated long-term aim is to 'reduce the size of the population with low skills and thereby ultimately tackle income inequality' (Knibbs *et al.*, 2013, p. 11). The Wales Centre for Public Policy (2020) document on planning for recovery from the pandemic states that 'investment in the human capital of Wales should be a key priority' (p. 6).

Investment in preventative services is one of the strategies adopted by local authorities in Wales in response to austerity measures. The Welsh Local Government Association (WLGA) argues for investment in preventative health measures and public health in recovery from the pandemic (Morgan, 2020). Prevention is also one of the five ways of working outlined in the Well-being of Future Generations (Wales) Act 2015. Such an approach can be delivered through universal services such as libraries and parks; however, many of these universal services that make up the infrastructure for prevention have been subject to significant budget reductions over the last ten years of austerity measures (WLGA, 2015; Wallace, 2019). Investment in preventative services is also difficult because of delayed returns and increasing demand for services in the present (Taylor-Collins and Downe, 2022). Instead, much planning has focused on targeted and early intervention services, for example through the inclusion of action on adverse childhood experiences (ACEs) in the national indicator set (Wallace, 2019).

With its long-term future focus, the Well-being of Future Generations (Wales) Act 2015 is clearly about investment, although its ethos is one of justice (Jones, 2019), with wellbeing operating not only in the economic sphere but also across social, environmental and cultural domains. Nonetheless, the management of the Act's implementation has the hallmarks of 'techno-managerialism' in its use of 46 indicators of progress, which reduce a complex and messy future into knowables that become the province of experts, potentially weakening the intention of a collaborative approach (Pigott, 2018). The importance of partnership working is specified in three of the five ways of working within the Well-being of Future Generations (Wales)Act 2015, namely collaboration, integration and involvement, reiterating a key original principle of the Welsh Government's partnership approach to policy making (Downe *et al.*, 2010; Drakeford, 2012; Guarneros-Meza *et al.*, 2012). The risk here is that within the current period of (late) neoliberalism and austerity, together with the economic effects of the pandemic, such collaboration becomes less a democratic process of civic engagement and state responsiveness and more one of shifting the risk and responsibility for delivering public services to communities and individuals as discussed above (Pearce *et al.*, 2020; Pill, 2022).

Nevertheless, the Welsh Government has undertaken some bold, principled and experimental commitments, including the Well-being of Future Generations (Wales) Act 2015, discussed in more detail in section 2.3.4. Of interest to this review is the approach taken to children's play and other policies that have a significant, but indirect, effect on children's lives. We consider first the Welsh Government's radical policies for play and then review broader policies that also affect children's ability to find time, space and permission to play, before returning to the Well-being of Future Generations (Wales) Act 2015.

Policy on children's play in Wales

From the early days of the devolved government in Wales, children's issues were high on the agenda, both because the limited devolved powers in those early days covered much of children's policy, but also because many of the members of the initial Assembly had an interest in or had worked with children (Butler and Drakeford, 2013). As early as 2000, the office of Children's Commissioner for Wales was established (the first in the UK), laying the foundation for a rights-based approach to policy making for children (Butler and Drakeford, 2013) as a basis for 'creating equal citizenship for all' (Sullivan and Jones, 2013, p. 25). This was further cemented in the publication, in 2000, of *Children and Young People: A framework for partnership*, which stated that the UNCRC 'should provide a foundation of principle for dealings with children' (National Assembly for Wales, 2000a, p. 10), and by the National Assembly for Wales formally adopting the UNCRC as the basis for policy making in 2004 (Butler and Drakeford, 2013; National Assembly for Wales, 2004). The UNCRC was translated into seven core aims, the fourth of which was that children should have 'access to play, leisure, sporting and cultural activities' (Welsh Assembly Government, 2004, p. 41). Perhaps the most radical step came with the Rights of Children and Young

Persons (Wales) Measure 2011 which places a duty on Welsh Ministers to have due regard for the UNCRC when exercising any of their functions (National Assembly Wales, 2011). Embedding the UNCRC into law this way 'gives legal force to the proposition and promotion of and respect for the human rights of children and young people are fundamental principles of devolved governance in Wales (Williams, 2013, p. 49). These moves largely enjoyed cross-party support, although there was some resistance from the senior civil service and some departmental Ministers at the time, with the ultimate achievement of passing the Measure being partly due to evidence presented from non-governmental organisation (NGO) groups, academics and practising lawyers, and committee scrutiny (Aspinwall and Croke, 2013; Sullivan and Jones, 2013).

The Rights of Children and Young Persons (Wales) Measure 2011 requires the Welsh Government to draw up a Children's Rights Scheme outlining plans for putting the duties in the measure into practice. At the time of writing, the third such scheme is working its way through the Senedd (Welsh Parliament), informed by, amongst other things, a review from the Children, Young People and Education Committee into the measure's influence and impact (Children, Young People and Education Committee, 2020). The review found a frustration with the slow pace of the measure's influence on policy and funding, a lack of reference to children's rights in key strategic documents and insufficient consideration and implementation of the duties of the measure across the Welsh Government as a whole. The measure introduced Children's Rights Impact Assessments (CRIAs), but the review found that these were being introduced too late in the policy development process. The duties of the measure apply only to the Welsh Government and not to public bodies operating at local or regional level; since this is where most children's services and actions that affect children's lives are located, the review recommended that duties be extended to bodies such as local authorities and health boards (Children, Young People and Education Committee, 2020). The latest draft Rights Scheme makes a number of commitments to strengthen embedding and promoting children's rights, children's participation and government accountability (including a complaints process for children and young people); however, the duties have not been extended to local public bodies (Welsh Government, 2021b).

Butler and Drakeford (2013, p. 14) note that 'the radicalism of the rights-based agenda ought not to be under-estimated'. However, it is also not without its critics. Many of the critiques of the UNCRC emanate from concerns regarding its influence on international development, raising questions about whether children's rights can or should be universally conceptualised and applied, particularly when 'universal' in this context implies minority world constructs of childhood (Abebe, 2019; Hanson *et al.*, 2018), and where such universality is grounded in colonialism and the growth of neoliberal globalisation in complex and nuanced ways that ultimately serve the interests of the powerful (Aitken, 2018a). Within this perspective, rights are seen as something possessed by individual rights holders (Abebe, 2019; Adonteng-Kissi, 2020; Faulkner and Nyamutata, 2020; Hanson *et al.*, 2018; Kaime, 2009; Lester, 2016a; Tarulli and Skott-Myrhe, 2006; Tisdall and Punch, 2012), opening up the possibility of conflicts between different rights-holders over whose rights count (Fitzpatrick, 2013; Fortin, 2007). One example might be the tension within the UNCRC between children's best interests and children's own views, tensions that have exercised academics and professionals alike (Archard and Skivenes, 2009). Arce (2015) suggests that children's rights have been under-theorised, being accepted uncritically as what is presented in the UNCRC.

The notion of rights might be seen as lacking, in that they are worth little unless powerful actors and interpreters face their obligations to do the right thing in terms of justice (Fitzpatrick, 2013). Wells (2011a) describes how the concept of rights, once enacted *against* states for their powerful control over people's lives (for example, with civil rights movements), has become absorbed into the biopolitics of the contemporary neoliberal state, particularly as regards children. Whilst much of the academic debate concerning children's rights has focused on participation, there are far more articles that address issues of protection and provision, such that governments aim to control children's development towards their future as 'fully mature, healthy, civilised adult[s]' (Wells, 2011a, p. 18). Similarly, Kjørholt (2013) notes how the conceptualising of children's citizenship rights has shifted in neoliberal times from one of 'solidarity security and welfare in a community … [towards] questions about the subject's individual "free choice" and self-realisation' (p. 248), linking into market-driven economic constructs of children as social investments.

Such arguments raise interesting challenges to the notion of children's right to play, particularly where play may be appropriated as a means of guiding children's development. Great power lies with 'interpretive communities' (for example states, civil servants, NGOs, academics, monitoring bodies) who 'can be quick to offer interpretations that reflect personal preferences as to the nature of protection that the advocates think the right in question *should* accord' (Tobin, 2010, p. 2; see also Fitzpatrick, 2013; Williams, 2013). The Welsh Government's foundational principles of partnership working and social justice offer a hopeful starting point for interpretive communities working on children's right to play, and particularly since the introduction of the Play Sufficiency Duty which requires both cross-professional working and taking children's views into account, raising the possibility of what has been termed a 'collective wisdom' in accounting for and being responsive to children's right to play (Lester and Russell, 2013a, 2014a; Russell *et al.*, 2019; 2020).

Alongside the Welsh Government's rights focus runs a history of support for children's play from the start, emerging from an assemblage of, amongst others, the 'clear red water' (Morgan, 2002); the interests, experience and expertise of Assembly members; the commitment to partnership working and the advocacy of Play Wales as the NGO for play in Wales (Butler and Drakeford, 2013; Lester and Russell, 2013a). This meant that as early as 2000, in the same document that established that all policies for children would be rights-based, the unified Children and Young People's Support Fund (which brought together all funding streams for children and young people) included a £1m Play 2000 Grant to support open access[42] play projects and also to fund research on play in Wales (Lester and Russell, 2013a). The report from the research, which was carried out jointly by the Welsh Assembly Government, Play Wales and the Welsh Local Government Association, recommended the introduction of a number of actions that paved the way for Wales to be the first country in the world to adopt a national play policy in 2002 (Lester and Russell, 2013a; National Assembly for Wales, 2002b; Play Wales, 2000; Welsh Assembly Government, 2002). This was followed in 2006 by a Play Policy Implementation Plan (Welsh Assembly Government, 2006), which outlined a range of actions across open access play provision, play in schools, play in the community, developing the playwork profession and policy proofing across the Assembly. Then, in 2010, the Welsh Assembly Government made Wales the first country to legislate for children's play with the introduction of a Play Sufficiency Duty as a part of the Children and Families (Wales) Measure 2010, aiming to make Wales a 'play-friendly country' (Welsh Government, 2014). This, as with many Welsh policies and measures, was a bold and radical step (Lester and Russell, 2013a).

The Play Sufficiency Duty

The Play Sufficiency Duty places a statutory duty on local authorities to assess and secure, so far as is reasonably practicable, sufficient play opportunities for children in their area. Play Sufficiency Assessments are prepared and submitted every three years in line with statutory guidance (Welsh Government, 2014), addressing nine matters including information on populations, diverse needs, play provision, space and children's access to it, workforce development, community engagement and policy alignment.

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[42] The term 'open access' is used to refer to play projects where children are free to come and go, as opposed to out of school care projects where children have to stay until collected by their caregiver.

The statutory guidance embraces both an intrinsic and instrumental understanding of play:

'The Welsh Government places great value on play and its importance in the lives of children in our society. We believe that children have a fundamental right to be able to play, and that play is central to their enjoyment of life and contributes to their well-being. We also believe that play is essential for the growth in children's cognitive; physical; social and emotional development. There is much evidence to support this belief and an increasing understanding of play's contribution not only to children's lives, but also to the well-being of their families and the wider community' (Welsh Government, 2014, p. 4).

The guidance also acknowledges children's play as a right, citing not only Article 31 of the UNCRC (the right to play, leisure, culture and rest) but also Article 15 (freedom of association) and Article 12 (respect for children's views) as directly relevant to the duty. The commencement of the first stage of the duty, to assess sufficiency of play opportunities, coincided with the publication of General Comment no. 17 (UN Committee on the Rights of the Child, 2013) on Article 31 (children's right to play). General Comment no. 17 identifies a series of features that constitute an 'optimum environment' for children's play and outlines numerous interrelated state obligations including the recommendation to legislate to establish Article 31 rights for every child and that such legislation should be informed by the principle of 'sufficiency', that is, 'all children should be given sufficient time and space' to exercise their right to play (UN Committee on the Rights of the Child, 2013, p. 19).

The statutory guidance notes that, as Wales is the first country to establish a Play Sufficiency Duty, there are no precedents, and that partnership working is key to the success of the duty. Recognising that it is no longer 'accepted as the norm for children to go out to play and organise where they go and what they do in their own time', the aim of the duty is to 'make communities more play friendly by valuing and increasing quality opportunities for play throughout the community', with the overall intended outcome being 'more children playing' (Welsh Government, 2014, p. 14). In this way, the duty includes and goes beyond specific provision for play, requiring local authorities to work cross-departmentally to support children's ability to 'play out' in their neighbourhoods and other areas of the public realm. Many early Play Sufficiency Assessments still focused on designated provision and spaces (Lester and Russell, 2013a); however, several showed successful forging of relationships with planning and other spatial services to make changes in their work to support playing in public spaces (Wood, 2017). Over time, more Play Sufficiency Assessments and actions have included a more community-focused approach, with the statutory requirement to work cross-departmentally being acknowledged as a powerful enabler and a key strength of the duty. Local authorities report developing relationships with planning, housing, highways, active travel, green infrastructure, open spaces, town centre management, Town and Community Councils and others (Russell *et al.*, 2019, 2020).

The General Comment on Article 31 (UN Committee on the Rights of the Child, 2013, p. 5) acknowledges that play 'takes place whenever and wherever opportunities arise', shifting the understanding of children's play from one of activity that only takes place at allocated times and in designated spaces towards one of play as an affective state that emerges from current conditions in ways that are opportunistic, unpredictable and self-organising (Lester, 2020; Lester and Russell, 2013a). Once this understanding is appreciated, then the duty to work towards a sufficiency of opportunities to play becomes one of paying attention to the conditions that support the emergence of playing and working to cultivate those. The later research studies (commissioned by Play Wales) into local authorities' responses to the duty term this 'account-ability' (being able to account for how children play) and 'response-ability' (being responsive and working to leave space open for the possibility of play) (Russell *et al.*, 2019, 2020; Tawil and Barclay, 2020). These studies argue that questions of play sufficiency are ultimately questions of spatial justice, concerned with conditions of (in)justice and the fair and equitable spatial distribution of socially valued resources. Spatial justice is a concept that has been adopted by the Welsh Government in the Ministerial Review of Play, which is underway at the time of writing.

The Ministerial Review of Play

Ten years after the commencement of the Play Sufficiency Duty, the Welsh Government undertook a ministerial review of children's play. In line with Welsh Government principles, the review was a collaborative process involving key Welsh Government officials and members of the Senedd, cross-professional stakeholders, specialists and independent academic advisers, and included consultation with children. The review identified six areas for consideration: alignment of key legislation that impacts on the right to play, Play Sufficiency Duty and funding, spatial justice, playwork provision and regulation, workforce and qualification, and play and education. It makes a total of 15 recommendations across these themes (Ministerial Review of Play Steering Group, 2023).

Children's play as a matter of spatial justice

Children's play is inherently spatial in that it always happens some*where*. The concept of spatial justice, recognised in the Welsh Government's Ministerial Review of Play, opens up ways of looking at how spaces are produced through the interrelationships between design of the built environment, legal and governance systems that give precedence to keeping the economy moving, and the ways these are entangled with political and social norms and everyday practices (Lester, 2020; Pyyry and Tani, 2019; Soja, 2010). Children's (and adults') playful use of public space often reconfigures it (for example, playing at not walking on the cracks in the pavement, balancing on a low wall, playing kerby, skateboarding tricks, parkour, or just hanging out), creating a temporary play space that deterritorialises the intentions of designers. Whether children can negotiate such time-spaces for play is dependent on unequal power relations and increasing inequalities at many scales. Spatial injustices for children are

'in general, located in children's reduced ability to claim space (to live and play in their immediate environments), to participate in spatial production (to transform the local environment to their desires) and to develop spatial connections (to navigate the environment and form links in-between)' (Lester, 2020, p. 165).

Sometimes, children's playful productions elicit controlling responses from adults (Barclay and Tawil, 2015; Dallimore, 2019), but more generally they tend to go unnoticed or ignored, which can therefore give children the space and 'permission' (by omission) they need. However, it also means that those adults responsible for assessing and securing sufficient opportunities for children to play need to relearn, to see, to pay attention to, in ethical ways, how children can find time and space for playing. In researching local authority responses to the Play Sufficiency Duty, Russell *et al*. (2020) found that creative research with children (for example using map-making, walkabouts, photography) at hyperlocal levels was often a basis for making changes, contributing to 'collective wisdom', acknowledging and working with the many different ways of knowing about how spaces work and are produced, both cross-professionally and in terms of children's own wisdom about their own neighbourhoods.[43]

Ideas of spatial justice and collective wisdom, together with the requirement for both cross-professional and cross-policy working, have meant that governmental laws, policies and initiatives not necessarily exclusively directed at children become highly relevant, particularly those that govern the design, development, management and use of public spaces. A key example is *Planning Policy Wales* (Welsh Government, 2021a), which has a principle of achieving wellbeing through placemaking[44] and includes the Play Sufficiency Duty in its list of relevant legislation to take into consideration.

[43] These ideas are discussed further in chapter 4.

[44] Explained further in chapter 5.

Other examples are:

- the 20mph speed limit programme
- the Active Travel (Wales) Act 2013 guidance, which acknowledges that routes that are suitable for walking are also suitable for playing, and that attractive routes can include formal or informal play spaces or green infrastructure
- Public Health Wales' *Planning and Enabling Healthy Environments* (Johnson and Green, 2021), which talks about child-friendly neighbourhoods that can support play, in terms of specific play areas, streets that are safe and playable, and safe, active travel routes.

These initiatives bring together ideas of space, justice and wellbeing, which are also central to the Well-being of Future Generations (Wales) Act 2015.

2.3.4 The Well-being of Future Generations (Wales) Act 2015

'Enhancing well-being has become a key criterion for evaluating WG policy, including children policy. Internationally, there has been growing discontent at the adequacy of using Gross Domestic Product (GDP), as a measurement of "social and economic progress", with the "prosperity" of nations being viewed as better measured in terms of well-being enhancement. This discontent … has been unambiguously endorsed by the WG, which, in turn, has had a profound effect on the development of children policy' (Smith, 2019, p. 8).

At the core of the Well-being of Future Generations (Wales) Act 2015 is sustainable development (Welsh Government, 2016a). The sustainable development principle focuses on process rather than outcome and is embedded in the five ways of working outlined in the act: long term, prevention, integration, collaboration and involvement. Sustainable development has been a key pillar of the Welsh Government from the start, with the inclusion of a duty to promote sustainable development within the Government of Wales Act 1998 (Nesom and MacKillop, 2021; Netherwood and Flynn, 2020; Pigott, 2018; Wallace, 2019). Wales was the first European government to place sustainable development on a statutory footing in the Well-being of Future Generations (Wales) Act 2015 (Morgan and Sabel, 2019). The act adopted the United Nations' Sustainable Development Goals into law and has been described as 'ground-breaking in legislating for equality, communities and the health of future generations rather than having a narrower focus on economics' (Messham and Sheard, 2020, p. 2). The act places economic, social, environmental and cultural wellbeing at the heart of all the work of identified public bodies, which have a duty to plan for a sustainable future and through setting localised objectives for meeting the seven nationally identified wellbeing goals: a prosperous Wales; a resilient Wales; a healthier Wales; a more equal Wales; a Wales of cohesive communities; a Wales of vibrant culture and thriving Welsh language; a globally responsible Wales (Jones *et al.*, 2020; Welsh Government, 2015, p. 3).

Whilst the act aims to give further legal status to the existing commitment to sustainable development as a central organising principle, the concept of sustainable development has itself been problematised as a contradiction in terms, a continuation of the privileging of development (understood largely as economic growth) at a time when the environment can no longer be treated as a stable and infinite stock of resources for our use (Pigott, 2018). It has also proved to be problematic given that it was understood as relating mostly to environmental issues and not the full range of Sustainable Development Goals; it is for this reason that the focus on wellbeing was adopted for the act (Wallace, 2019).

Public bodies in Wales have a statutory duty to carry out sustainable development through setting and publishing wellbeing objectives and taking all reasonable steps to meet them (Welsh Government, 2016a). The act also established Public Services Boards (PSBs) (replacing previous Local Service Boards) bringing together the local authority, the Local Health Board, the fire and rescue authority for the area and Natural Resources Wales (NRW), together with a range of required invited partners (Welsh Ministers, the police chief constable, the police and crime commissioner, probationary services and the voluntary sector) and other partners from health, community, arts, culture, sport and leisure (Welsh Government, 2016b). There are currently 19 PSBs across Wales, as some cover more than one local authority area (of which there are 22). PSBs have an additional duty over other public bodies to carry out and publish wellbeing assessments every five years. The statutory guidance states that they may include analysis of the wellbeing of people with particular characteristics, including children, particularly those in poverty and/or looked after, suggesting PSBs 'might also benefit from taking into account children's rights impact assessments' (Welsh Government, 2016b, p. 15). The guidance also requires PSBs to identify local areas at community level for the wellbeing assessments, thereby bringing an explicit spatial focus to the duty and the act.

Whilst children do not explicitly feature much in the Well-being of Future Generations (Wales) Act 2015 (other than in terms of health measurements and child development and a focus on adverse childhood experiences), the aspirational and overarching nature of the act makes it of interest to this review. It is particularly relevant if references to 'people' and 'communities' are understood to include children, which, given that age is a protected characteristic in the Equality Act 2010, should be but is not always the case. Indeed, the statutory guidance on the act states that the goals and ways of working support the existing commitment to the UNCRC and that 'an inclusive approach to achieving the well-being goals is strongly encouraged, in particular by involving children, young people and older people' (Welsh Government, 2016b, p. 20). Furthermore, the Commissioner for Future Generations and the Children's Commissioner for Wales have issued joint guidance for public bodies to consider children's rights in relation to the wellbeing goals and ways of working. The guidance highlights how sustainable development actions across the seven goals will have an impact on children (for example, plans for transport), and provides an illustrative mapping of the wellbeing goals to the articles of the UNCRC. In addition, the guidance notes how universal services, including playwork,

'are often the foundation and gateway to early intervention providing all children with opportunities to:
(a) develop strong relationships with and receive support from key adults in their lives;
(b) participate in their communities and in decision making;
(c) develop problem-solving and coping skills;
(d) live, learn and play in safe and healthy local environments;
(e) develop respect for individuality;
(f) build and sustain friendships' (Future Generations Commissioner for Wales and the Children's Commissioner for Wales, 2018, p. 27).

Play Wales (2021a) outlines how play makes a valid contribution to both the ways of working and the wellbeing goals within the act, particularly aspects such as health and wellbeing, resilience, community cohesion, equality and a thriving Welsh culture, as well as contributing to a globally responsible Wales through leading the way with the Play Sufficiency Duty. Furthermore, the Ministerial Review of Play also notes how taking children's ability to play into consideration in the act can both contribute to the act's goals and show how the act can be used to support children's ability to find sufficient time, space and permission to play (Ministerial Review of Play Steering Group, 2023).

Studies of attempts to govern the future focus on ways to predict it, to mitigate fears of an uncertain future (climate change, geopolitics, pandemics and economic uncertainty) and to imagine a more just future. All three are evident in the Well-being of Future Generations (Wales) Act 2015, but its distinctness comes from the centrality of a hopeful vision for a more just future that looks beyond GDP to embrace wellbeing and spatial justice (Jones, 2019). Jones *et al*. (2020) note how much of the literature on spatial justice focuses on cities, yet (in)justices are 'infused into the multi-scalar geographies in which we live, from the intimacies of the household to the uneven development of the global economy … creating lasting structures of unevenly distributed advantage and disadvantage' (Soja, 2010, p. 20). Nevertheless, social and political action can make a difference to such geographies and their effects (Jones *et al*., 2020).

The localisation of wellbeing assessments and plans, together with the requirement to take a place-based perspective, opens up opportunities for spatial justice in that it can accommodate local differences (Jones, 2019; Jones *et al*., 2020). However, feedback from the Future Generations Commissioner on the first round of assessments highlights how, although spatial assets are acknowledged and local issues identified, 'most well-being assessments showed very limited consideration of the significance or cause of spatial differences' (Future Generations Commissioner for Wales, 2017, p. 15), with the Commissioner urging PSBs to 'think more deeply about the relationship between space and wellbeing; to move beyond viewing space as merely a container for (in)justice, viewing it instead as something that contributes to (in)justice' (Jones *et al*., 2020, p. 907).

Working towards spatial justice requires more than addressing current social injustices in specific locations, it means making sense of how transcalar spaces are produced and reproduced through the entanglements of materiality and design, governance and ideology, spatial practices, histories and so on, meaning that spatial justice is both a plural and situated concept (Jones *et al*., 2020; Lester, 2020). The UNICEF report on environments and children's wellbeing (UNICEF, 2022a) draws attention to how air, water, noise and light pollution, together with hazardous substances in food, cosmetics, packaging and elsewhere have significant impacts on children's health and wellbeing. These environmental hazards often act invisibly, and children are highly susceptible to them. Alongside this, the report notes more tangible and visible environmental issues, including damp and overcrowded housing and dangers from traffic, as well as access to green space and places to play and their links to subjective wellbeing and happiness. Mostly, Wales is included in the report as a part of the UK, so it is difficult to extract data. Overall, the UK ranks 11th out of 39 wealthy countries.

In drawing up wellbeing assessments, Netherwood *et al*. (2017, p. 20) highlight the value of rich qualitative data beyond datasets that give a sense of 'people's experience and insights into a locality'. An example of this is the 'deep place' approach, based on the idea that local actions can be effective if they are co-ordinated and fully integrated (Lang, 2016). Another example is the Lleisiau Bach Little Voices project (Croke *et al*., 2021), described in chapter 5. There are similarities here with the hyperlocal spatial research with children carried out by some local authorities for Play Sufficiency Assessments (Russell *et al*., 2019, 2020), suggesting a useful potential integration of children's experiences into wellbeing assessments.

Given the interrelatedness of wellbeing and spatial justice embedded in the Well-being of Future Generations (Wales) Act 2015, it is worth looking more at how wellbeing is framed within public policies relating to children. It should be noted, however, that the specific understanding of wellbeing in the Well-being of Future Generations (Wales) Act 2015 includes the wellbeing of people and goes beyond this to the collective wellbeing of Wales as a country through sustainable development, which 'connects the environment in which we live, the economy in which we work, the society in which we enjoy and the cultures that we share, to people and their quality of life' (Welsh Government, 2016a, p. 5).

2.3.5 Children's wellbeing and policy

'Wellbeing' is a concept that has increasingly attracted attention, first from researchers and then policy makers, particularly in terms of measuring wellbeing as an indicator of 'progress' over time and of comparison between countries. Gordon (2015) notes that while play researchers do explore the relationship between play and wellbeing, the converse is not so: while wellbeing researchers may talk about the importance of leisure, this does not capture everything that play can offer for wellbeing. However, more recent wellbeing research has been including children's play, for example the most recent UNICEF Children's Worlds surveys (Rees *et al.*, 2020), discussed below.

'Wellbeing' is certainly an appealing notion and yet there is broad agreement that it is ill-defined and under-theorised (Amerijckx and Humblet, 2014; Ben-Arieh and Frønes, 2011; Ben-Arieh *et al.*, 2014; Camfield *et al.*, 2010; Domínguez-Serrano *et al.*, 2019; Fattore, 2020; Fattore *et al.*, 2021; Lester, 2020), with some researchers noting the benefits of such vagueness (for example, Atkinson, 2013; Robeyns, 2017). Despite a significant body of work on the determinants and indicators of wellbeing for children, there is a lack of both consensus and debate on what it is that constitutes children's wellbeing (Raghavan and Alexandrova, 2015). Nevertheless, it is possible to identify a dominant research strand that categorises components and/or determinants of wellbeing, that sees wellbeing as something that an individual can acquire or achieve, and that has a big focus on concepts such as happiness and resilience (Atkinson, 2013; Lester, 2020).

Ideas of what constitutes the 'good life' have been debated by philosophers for millennia; more recently, health researchers, economists, psychologists, educationalists and others have turned their attention to the concept. Policy makers' interest in social indicators based generally on quality of life has given rise to engagement from social scientists interested in developing ways to measure wellbeing. The New Economics Foundation (NEF, 2012) locates the publication of a paper by Richard Easterlin (1974), questioning whether economic growth improved people's lives (often referred to as the Easterlin paradox) as a key moment in garnering academic interest, mostly from behavioural psychologists and the positive psychology movement in the early days. The report from the Stiglitz Commission (Stiglitz *et al.*, 2009) gave a further boost to the growing interest in nations looking beyond a narrow focus on Gross Domestic Product (GDP) towards measuring social and environmental as well as economic progress. Shortly after this the UK government commissioned the Office for National Statistics (ONS) to establish a Measuring National Well-being programme to consult on what mattered to people (adults) and develop indicators to measure progress over ten broad areas of life (Atkinson, 2013; Self *et al.*, 2012). In 2015, the ONS started to measure children's wellbeing across seven domains and at the time of writing is consulting on a review of the indicators and domains (Jordan and Rees, 2020). The Children's Society has also been publishing the *Good Childhood* report since 2010.

In Wales, wellbeing is a key element in national policy and law, most notably the Well-being of Future Generations Act 2015. In terms of measuring wellbeing, data are collected against the 46 indicators in the act and published annually. Of these indicators, 11 address material conditions for people's lives, 21 address issues pertaining to quality of life and 14 address environmental issues (Wallace, 2019). Much of the data come from the National Survey for Wales, a telephone survey that does not include children under 16 years of age. In 2018, the Welsh Government published a supplementary report on the wellbeing of children (Statistics for Wales, 2018), drawing on a range of extant sources. In addition to the Well-being of Future Generations (Wales) Act 2015, the Social Services and Well-being (Wales) Act 2014 places a focus on the wellbeing of those needing care and of their caregivers. Also, the Curriculum for Wales has health and wellbeing as an explicit Area of Learning. HAPPEN (the Health and Attainment of Pupils in Primary Education Network) has established a national survey that both measures primary school children's wellbeing and supports schools to develop their curricula in this area.

Internationally, UNICEF's Innocenti Research Centre has been publishing report cards with league tables of issues facing children in rich countries since 2003 (UNICEF, 2015). In 2007, the report card focused on children's

wellbeing and caused great concern because the UK scored bottom overall. In 2013, the focus was again on wellbeing (where the UK fared much better and was ranked 16th out of 29 countries), and in 2020, Report Card 16 looked at what shapes children's wellbeing in rich countries (UNICEF, 2020). UNICEF-Geneva also supported the establishment of Children's Worlds, an international survey on children's subjective wellbeing, with pilots in 2009 and 2011, the first full survey in 2013-2014 and another published in 2020, all surveying children aged eight, ten and twelve (Ben-Arieh *et al.*, 2015; Bradshaw and Rees, 2018). The Organisation for Economic Co-operation and Development (OECD) has published two major reports on wellbeing of children in its member countries in 2009 and, with revised indicators, in 2015 (OECD, 2021).

Much has been written regarding ways of measuring children's wellbeing, collecting data and comparisons between countries (for example, Ben-Arieh and Frønes, 2011; Ben-Arieh *et al.*, 2014; Bradshaw, 2019; Bradshaw *et al.*, 2012; Camfield *et al.*, 2010; Cho and Yu, 2020; González-Carrasco *et al.*, 2019; Kosher and Ben-Arieh, 2017; Rees *et al.*, 2020). The OECD (2021) notes that some aspects of children's lives affecting their wellbeing are well documented, but others are not; in addition, the most vulnerable children are often poorly represented in existing data, and children's own views are not always reflected.

Measuring wellbeing tends to be split into objective and subjective measures, although the two are interdependent (Camfield *et al.*, 2010) and there is generally a strong correlation between them (Bradshaw, 2019). Objective indicators consider issues such as financial security, housing, health, education and environment; subjective indicators consider self-reported health matters, social relationships and general satisfaction with life (Fattore, 2020). Two main approaches to measurements of subjective wellbeing have been *hedonic* wellbeing (happiness and satisfaction with life) and *eudaimonic* wellbeing (personal fulfilment, self-determination and a life that has meaning) (Ben-Arieh *et al.*, 2014). Soffia and Turner (2021) note that some approaches to measuring subjective wellbeing separate hedonic measures further into affective (good and bad feelings) and cognitive wellbeing (people's thoughts and evaluations of their lives). However, there is much conceptual and terminological variation and overlap across different studies. These measures also operate across a range of varied domains such as family, friends, appearance, health, school and time use.

The 2020 Children's Worlds survey includes a section on children's satisfaction with the area where they live, with one of the questions being 'In my area there are enough places to play and have a good time' (Rees *et al.*, 2020, p. 72). The UNICEF (2020) Report Card 16 includes play as an indicator (using data from the Children's Worlds survey) and notes that 'more time playing outside is linked to much higher levels of happiness'. The proposed revision for ONS measures of children's wellbeing (Jordan and Rees, 2020) includes the Children's Worlds data on places to play.

In terms of a theory of children's wellbeing, rather than determinants and indicators, Raghavan and Alexandrova (2015) argue that the three main theories of general wellbeing (that is, mental states theories that focus on happiness, desire-based theories that foreground fulfilment and needs-based theories that are more objective) do not adequately meet the demands of being both sufficient and necessary for children's wellbeing. They suggest that two conditions need to be met that can respond to the specifics of children's lives and that can look at both children's futures and their lives in the present (both well-becoming and wellbeing). Children are 'doing well' when they can both develop the capacities to do well as adults within their complex social ecologies *and* engage with the world in the present in ways that are appropriate for them. In a sense, although they only hint at this tangentially, their proposed theory is in line with a capability approach, explored in the next section.

The capability approach

One approach to wellbeing that has been explored by a growing number of children's wellbeing researchers and practitioners is the capability approach, with examples drawing on the works of philosopher-economist Amartya Sen and philosopher Martha Nussbaum (for example, Biggeri *et al.*, 2011; Camfield and Tafere, 2011; Domínguez-Serrano *et al.*, 2019; Kellock and Lawthom, 2011; Schweiger, 2016). The approach seeks to move

beyond merely considering the importance of resources for people's wellbeing on the one hand (for example, food, shelter, health care, education) and subjective accounts on the other (Owens *et al.*, 2021). Capabilities refer to the opportunities and freedoms for people to be able to be and do what is of value to them; part of this is the process of 'converting' resources into 'functionings' so that people can actually do and be what is of value to them. Conversion factors operate across personal, social and environmental factors (Robeyns, 2017). Capabilities, therefore, comprise both the sufficient resources and the capability to use those resources to do and be well. However, it should be noted that for Sen freedoms can be enjoyed only by competent adults, and although Nussbaum asserts capabilities hold for all children, Murris (2019) argues it is difficult to apply her full list of human capabilities to children (see below).

Parallels have been drawn between the capability approach and the social investment policy narrative,[45] but Laruffa (2018) challenges these, arguing that whilst the ideal aim of social justice may be common to both, the economisation and individualism of wellbeing within a social investment framework 'seems to confuse capability with employability and human capital' (p. 180), whereas the capability approach rejects such instrumentalisation of human life, seeing people as ends in themselves rather than means to ends.

There is much debate about whether there can be a universal list of capabilities, given that wellbeing is context-specific: different things matter in different contexts and at different times. Sen, a strong proponent of social choice theory, argues against a universal list, saying that for practical applications of capability theory each situation is different and the capabilities and functionings that matter should be identified within context as part of a democratic process (Robeyns, 2017). Nussbaum (2007), however, argues that capability theory is a theory of justice and therefore rights based, and identifying a list is necessary to give the theory 'teeth'. Her list of ten central human capabilities is:

- Life
- Bodily Health
- Bodily Integrity
- the Development and Expression of Senses, Imagination and Thought
- Emotional Health
- Practical Reason
- Affiliation (both personal and political)
- Relationships with Other Species and the World of Nature
- Play
- Control over One's Environment (both material and social).

Nussbaum describes the play capability as 'being able to laugh, to play, to enjoy recreational activities' (Nussbaum, 2007, p. 24). From this, it could be argued that if playing is seen as one of the ten central human capabilities (for all ages), then a capability approach to wellbeing would need to pay attention to the conditions that support the opportunities and freedoms to play. As chapter 3 shows, the capability to play is positively correlated with all the other capabilities in Nussbaum's list and so for children becomes particularly salient (Nielsen, 2018). (For a critique of the capability approach, see the section below.)

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[45] See section 2.3.2.

Critiques of wellbeing and its measurement

Approaches to measuring children's wellbeing have drawn criticisms. The very concept of wellbeing has been questioned in terms of its effects. For example, Andrews and Duff (2020) explore the central role of the concept of wellbeing in the workings of contemporary capitalism through flipping the question on what produces wellbeing to what wellbeing produces. The flows of capital and wellbeing can be seen, for example, in its centrality to much of marketing linked to diet, beauty, health and fitness or in urban green regeneration projects (see also Atkinson, 2021; Laruffa, 2018; Walby, 2012). Additionally, wellbeing can be seen as a normative construct, based on 'a Western-centric notion of the self that equates the good life to hedonistic notions of personal fulfilment' (Fattore *et al.*, 2021, p. 5). The identification of indicators and domains for measuring children's wellbeing – deciding what matters and what counts – is (often uncritically) based on cultural, adult and class-based assumptions as to what constitutes a good childhood (Atkinson, 2013; Camfield *et al.*, 2010; Fattore *et al.*, 2021). Bourdillon (2014) notes the dissonance, for example, between research showing the benefits of children's participation in paid work (even work that is hazardous or exploitative, where there are complex contextual and interrelated issues at play) and the ideology in high-income countries of abolishing child labour, understood in stereotypical terms as child exploitation. He makes the case for wellbeing research to include aspects of wellbeing that are not easy to measure, specifically spiritual wellbeing that arises from positive emotions such as faith, love, joy, hope and compassion. Coffey (2020) highlights how psychological perspectives dominate in accounts of wellbeing, obscuring social, material and embodied aspects. Alexandrova (2018) argues that measurements of wellbeing can be both value-laden and objective, making a case for 'mixed claims'.

A key critique is that both the concept of wellbeing and its components are individualistic (Atkinson, 2021; Coffey, 2020; Fattore *et al.*, 2021), that is, that wellbeing is constructed as something that an individual possesses and as something that can – and should – be acquired or achieved (Atkinson, 2013; Coffey, 2020; Lester, 2020), thus rendering individuals responsible for their own wellbeing (White, 2017). A second and related critique is that this individualisation together with a 'components' approach can appear context-free (Atkinson, 2013), particularly with measures of subjective wellbeing that can act as a smokescreen for more structural issues of inequality (Atkinson, 2021; Bradshaw, 2019; Camfield *et al.*, 2010; Coffey, 2020; Fattore, 2020). Subjective ideas of wellbeing stem from participation in actions that have social value, and these are continually reproduced by those in power. Those who have access to the material resources that support valued forms of social participation perpetuate these cultural norms in ways that make them desired by those without the economic or cultural resources to participate (Fattore, 2020), which might offer one explanation as to why subjective wellbeing scores in wealthy countries are often low. As Levitas (2012, p. 338) notes, 'The promotion of post-material values and well-being is utterly ideological unless they are intrinsically linked to distributive and gender justice and a reorientation of the economy to need rather than profit'. White (2017) suggests that the growing anxiety that all is not well arises from the increasing individualism of late capitalism (and consequent diminishing of the social and relational) that paradoxically underpins approaches to theorising and measuring wellbeing. Wellbeing's seemingly benign and positive aspects represent it as something to strive for, a virtue even, in line with neoliberal requirements of self-responsibility and self-control that underpin 'individualising logics of blame where health-based inequalities are positioned as personal pathologies to be managed' (Coffey, 2020, p. 69).

Another critique considers how different interests are in operation both in the focus on wellbeing – what Ahmed (2010) terms the 'happiness turn' – and in the identification of domains and indicators (Atkinson, 2013). As Facer *et al.* (2012, p. 171) state, 'no metric can escape the conditions of its production and the partiality and incompleteness of its view on the world'. At a macro level, the components of a good life are pre-defined (for example, good health, wealth, marriage and children, social success), influencing choices made and continually reproducing values, norms and forms of discrimination (Ahmed, 2010; Atkinson, 2013). Fattore (2020) argues this is also the case where adults determine what matters on behalf of children and objective measures have tended to focus on child development outcomes or on performance within the institutions of childhood (such as education), with a largely deficit and future-focused perspective. These critiques, along with broader rights-based attention to children's participation, fostered what Fattore (2020) calls 'standpoint' approaches, where

children are asked what they think wellbeing is and how they experience it. This too has been challenged for over-romanticising children's perspectives and not taking into account the power of the social reproduction of norms described above and things beyond children's own lived experiences such as structural inequalities. It also raises questions about how to handle data where there is discrepancy between adults' and children's views on their wellbeing. Bradshaw (2019) notes that although there is often overall congruence between children's responses, the variations in measures at both micro and macro levels mean that researchers should be cautious when using them to recommend policy measures.

In terms of the capability approach specifically (described in the section above), Schweiger (2016) argues that capabilities are useful because they address inequalities and ideas of justice, and can be seen as ends in themselves, whereas resources are merely means to an end. However, despite the original intention of the approach being rooted in social justice, and as with other theories of wellbeing, its liberal individualistic origins have been criticised, particularly Sen's focus on freedom and choice, which overlooks 'the importance of communal values and resources that are irreducibly social … or understanding resources which are intersubjective, such as care, recognition, trust and friendship' (Fattore and Mason, 2017, p. 278). Robeyns (2017) argues that the capability approach is not individualistic in terms of its methodology, since capabilities pay attention to structural, resource and environmental issues as matters of justice. However, she agrees it is ethically and normatively individual as it situates all people as morally equal and as ends in themselves rather than means to ends (that is that human beings are valuable in themselves rather than being valued for other utilitarian purposes). Owen *et al*. (2021) further elaborate this differentiation, suggesting that the relational nature of the capability approach has, in some applications, been overlooked or poorly developed. They argue that Sen's three factors affecting the likelihood that resources can be converted into functionings are themselves interrelated and therefore relational. These factors are

'personal (relating to someone's particular embodied limits, talents and abilities, dispositions, etc.), social (relating to features of economic, political, social and cultural life, for instance, language, behavioural norms, legislation and labour market conditions, etc.) and environmental (referring, for instance, to infrastructure, institutions, public goods, climate and natural resources, etc.)' (Owen *et al.*, 2021, pp. 89-90).

Nonetheless, particularly Sen's work is embedded in minority world constructions of justice as fairness, freedom and choice, which are themselves 'part of the reproduction of existing hierarchies, not part of a challenge to them' (Walby, 2012, p. 104). Walby's critique goes further, arguing that the emphasis on choice takes the focus away from the concept of equality. It can be – and has been – appropriated by neoliberal forces to position individuals as responsible for making the right choices.

A further area of critique comes from the tension between rights-based and wellbeing approaches to policy making. Children's wellbeing is frequently linked to children's rights, although more often by wellbeing researchers than by children's rights scholars, perhaps because the UNCRC has few explicit references to wellbeing as a concept (Lundy, 2014). For example, Bradshaw *et al*. (2007, cited in Camfield *et al*., 2010, p. 1) define wellbeing 'as the realisation of children's rights and the fulfilment of the opportunity for every child to be all she or he can be in the light of a child's abilities, potential and skills'. There are clear overlaps, but rights researchers highlight a number of fundamental differences. Rights are more comprehensive but are minimal statements that state parties can ensure; wellbeing tends to be more aspirational (as can be seen in the second part of the definition above) and often considers aspects of lives that are beyond state control (love, for example). Rights indicators cover the full range of children's rights and are closely linked to state actions and state accountability (Lundy, 2014). Tisdall (2015b) describes how the discourse of wellbeing is needs-based, professionally led, often technical/apolitical and outcomes based, and so can be seen as less challenging for policy makers than a right-based approach.

The Welsh Government's rights-based approach to children's policies has over time come to encompass children's wellbeing; nevertheless, Williams and Daniel (2021) suggest that to date the emphasis has been on objective wellbeing measured through outcomes and standards set by professional adults in areas such as education, health and housing. These are important, but they can obscure the kinds of lives children are able to live and what they are able to do, leading them to argue that a capability approach could be a useful framework for considering both children's rights and their wellbeing. It should be noted, however, that Wales' participation in the Children's Worlds surveys described above means that data on subjective wellbeing will also be gathered. In their argument for a capability approach to youth justice, Williams and Daniel (2021) suggest rights-based approaches are only effective if rights can be realised and that in considering the relationship between wellbeing and rights, a balance is needed between the subjective and objective measurements.

A final criticism of the extensive use of measurements of children's wellbeing is that it fuels concerns about children, despite an intended focus on the positive, ultimately rendering the lack of subjective wellbeing a negative trait, an individual deficiency that can be remedied through professional intervention or education (Fattore, 2020; Morrow and Mayall, 2009). In their analysis of the literature on children's wellbeing, Amerijckx and Humble (2014) found a significant bias towards measuring 'microsystem' issues (65%), with a big focus on family and home problems and on children's health, echoing earlier critiques of wellbeing as an individual responsibility. Their review identifies five binary axes: positive and negative, objective and subjective, wellbeing as a state or a process, material and 'spiritual', individual and community, where 'the negative, eudemonic, objective, material and individual approaches to child well-being predominate over its positive, hedonic, subjective, spiritual and collective dimensions' (Amerijckx and Humble, 2014, p. 411).

UNICEF's (2020) Report Card 16 explores what shapes children's wellbeing in rich countries, and opens with the following observation:

'The COVID-19 crisis that has engulfed the world during 2020 presents new threats to child well-being. Even before the crisis, in the world's richest countries, the daily lives of millions of children fell far short of what anyone would call a good childhood. They suffered stress, anxiety and depression, lagged behind their peers at school, and were physically unwell … many of the wealthiest countries do not manage to convert good economic and social conditions into consistently high child well-being outcomes' (UNICEF, 2020, p. 5).

This offers an example of how research into wellbeing often focuses on 'ill-being'. On one level, this is understandable, because it highlights important issues that need to be addressed by policy makers. At the same time, it can create a sense of childhood in crisis (Adams, 2013; Kvist Lindholm and Wickström, 2020). Tuck (2009) argues that a 'damage' focus locates problems within individuals, requiring professional interventions that fix the 'damaged' as such and obscuring structural forces of power and injustice (Tuck, 2009). This is not to deny the very real harms and problems some children face, rather its purpose is to raise awareness of what such narratives, whilst well-intentioned, can also perform (Kvist Lindholm and Wickström, 2020).

Relational and spatial approaches to wellbeing

Despite the criticisms, however, many commentators acknowledge that there is still merit in researching children's wellbeing, particularly if its three characteristics of being broadly positive, dynamic and multidimensional (Soffia and Turner, 2020) are fully acknowledged. As Bourdillon (2014, p. 497) notes, 'most academics who undertake childhood studies do so because they are concerned about the well-being of children'. Some additional and alternative approaches have been suggested which may be of value in considering the relationship between wellbeing, policy and children's play. In line with shifts in childhood studies generally (see section 2.2), many of these adopt a relational approach, highlighting the interrelationship and interdependence of children's wellbeing and the spatial conditions of their lives (Andrews and Duff, 2019).

For example, Fattore (2020) describes 'praxeological' approaches, that is, approaches that understand wellbeing as arising from social practices. Here, wellbeing is performative, it is something that arises through actions and encounters rather than being possessed, acquired or achieved. In addition, many of the relational approaches also theorise wellbeing as fundamentally spatial (for example, Atkinson, 2013, 2020; Fattore *et al*., 2021; Lester, 2020). Atkinson (2013, p. 138) argues that this shift in focus offers the possibility of moving beyond the 'categories and boundaries of contemporary neoliberal policy' and beyond the binaries of subjective and objective, individual and collective, positive and negative, and so on. A spatial and relational approach understands wellbeing as comprising 'complex assemblages of relations not only between people, but also between people and places, material objects and less material constituents of places including atmosphere, histories and values' (Atkinson, 2013, p. 142), constantly being produced and reproduced. Everyday routines and practices lead to some level of stability that opens wellbeing up to measurement, but can also work to improve or worsen feelings of wellbeing. Given this, attention can be paid to the 'spaces of well-being' (*ibid*., p. 142) and to the conditions that support wellbeing. As Worpole (2014, p. 46) suggests, 'if we cannot trust and respect children … and create the conditions for their individual flourishing, then the great political programmes are so much hot air – sometimes dangerously so'.

Ideas of community wellbeing have mostly been understood as collective aspects of individual wellbeing, for example, individuals' assessments of their own friendships and networks (Atkinson *et al*., 2017). White (2017, p. 128) argues for more attention to be paid to relational aspects of wellbeing: 'Wellbeing is understood as arising from the common life, the shared enterprise of living in community'. From this perspective, it is less a matter of individuals building relationships and more one of relationships building individuals (White, 2017). This relates also to children's wellbeing, which has been measured in terms of their (individual) satisfaction with where they live (Rees *et al*., 2020), but less so in terms of the relational aspects of intergenerational relations, peer attachments, or attachments to place. Atkinson *et al*. (2017, p. 41) extend this relationality beyond other humans to broader assemblages including 'structures, affects, materiality, places, other life forms and so forth', which produce both stability and the possibility for disruption and difference.

A relational perspective, drawing on non-representational theories,[46] suggests that wellbeing does not arise from the environment but emerges *as* environment (Andrews, *et al*., 2014), 'assembled through the conditions of everyday life' (Coffey, 2020, p. 69). The flows and intensities of affect that arise from encounters in-between bodies (human and non-human), material objects, landscapes, histories, atmospheres and so on, produce feeling states that affect the capacity for engagement, the power to affect and be affected by the ongoing doings of life: feelings of being well or not being well. This offers 'very different implications for the location of wellbeing, of responsibility for wellbeing and of intervention targets' (Atkinson, 2021, p. 6).

2.3.6 Revisiting contemporary concerns about children and policy responses

Having considered the literature on key aspects of policy relating to children, play and wellbeing, we return briefly to the concerns introduced in section 2.3.1 to consider (mostly in Wales) policy responses to those concerns.[47] We do this to explore the multi-layered relational processes of policy making that include the issues already raised in our review of the literature.

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[46] See section 2.2.

[47] Practice issues, particularly relating to children's safety and digital lives, are reviewed in chapter 5.

Child safety

This section focuses on children's safety in the public realm. Issues of crime prevention are considered in the section on youth crime and youth violence below; similarly, digital safety and safety online are considered in the section on children's digital lives below. The question of risk and safety in children's play is also revisited in chapters 3 (in terms of its benefits for children's wellbeing), 4 (in terms of children's play patterns) and 5 (in terms of responses to children's risk-taking in play).

Regarding children's safety in the public realm, the argument has been made that rather than placing all the responsibility onto adults caring for children, which largely means removing children from the dangers, policy makers should look to making environments safe for children (Barclay and Tawil, 2021; Bessell, 2017; Russell *et al.*, 2019, 2020; Shaw *et al.*, 2015). Indeed, 15 years ago, a report from the World Health Organisation and UNICEF (Peden *et al.*, 2008, p. 41) noted:

'It is normal for children to carry out activities in the road environment – such as cycling, walking, running, playing and other common group activities. It is also important for their healthy development that children, from an early age, undertake such activities. For this reason, it is important for the road environment to be safe so that these activities can be undertaken without the child's safety being put at risk.'

A similar sentiment was expressed by the Future Generations Commissioner who, in talking about progress against the 'cohesive communities' goal of the Well-being of Future Generations (Wales) Act 2015, stated that public bodies need to 'create the conditions where people and communities can do the things that matter to them' (Future Generations Commissioner for Wales, 2020, p. 276). From a capability approach perspective, this is about children's capability to enjoy 'everyday freedoms' (Arup, 2017; Gill, 2021), including playing out.

There is great potential in terms of both the Welsh Government's Play Sufficiency Duty and their spatial and planning policies that also link to the Well-being of Future Generations (Wales) Act 2015. Cohesive communities, one of the act's goals, are further defined as 'attractive, safe, viable and well-connected' (Welsh Government, 2016a, p. 24). Through the act and subsequent guidance, public bodies are encouraged to bring a placemaking approach to community policy (Future Generations Commissioner for Wales, 2021). Placemaking Wales (2020) has published a placemaking charter together with a design guide, which outlines planning and design approaches including prioritising walking, cycling and public transport over private vehicles; safe active travel routes and networks; and a safe public realm that promotes 'opportunities for social interaction and a range of activities for all ages' (Placemaking Wales, 2020, p. 1). There is much synergy between the sustainability agenda and spatial justice for children (Gill, 2021; Russell *et al.*, 2020), and the design guide includes examples of child-friendly planning processes and outcomes, making several references to children's play. Such placemaking is also at the heart of *Planning Policy Wales* (Welsh Government, 2021a), Active Travel (Wales) Act 2013 guidance and Public Health Wales' *Planning and Enabling Healthy Environments* (Johnson and Green, 2021), all of which acknowledge the importance of children being able to play out and how this can be supported through community planning and design.

The political will is evident and encouraging, and although the Future Generations Commissioner stated in her 2020 report that 'good things are happening, things are changing because of the Act' (p. 29), she also noted there is more to be done. There is a paucity of academic literature on the act to date (particularly referring explicitly to children beyond the focus on adverse childhood experiences), and that which does exist tends to be on policy formulation rather than implementation, in line with the literature generally on sustainable development policies (Nesom and Mackillop, 2021). However, key issues that have been noted (for example, Nesom and Mackillop,

2021; Netherwood *et al*., 2021), include the difficulty of supporting real change through long-term planning, the tensions between the requirement for long-term planning and short-term funding, and those between national directives and local responsiveness.

There is a growing international advocacy for (particularly urban) child-friendly environments (see, for example Arup, 2017; Bernard van Leer Foundation, 2019; Gill, 2021; Krysiak, 2019; Real Play Coalition, 2020; RTPI, 2021).[48] Whilst children's everyday freedoms are affected by the quality of what Arup (2017, p. 17) term 'children's infrastructure … the network of spaces, streets, nature and interventions' that enable children to be out and about, this is not only about physical design:

'"Space" – or the environment – is not simply a physical landscape, but is constantly produced and created through encounters and relationships between people, materials, discursive practices, policies, attitudes and so on in highly complex and contingent ways' (Lester and Russell, 2013a, p. 34).

The point to be made here, therefore, is that legislation and statutory guidance is important, and equally important is design and planning. However, what also needs to be considered is activation: the role of people in implementing legislation and in supporting change across communities and a range of professionals. In terms of the Play Sufficiency Duty, the legislation has helped play sufficiency lead officers to engage with other professions such as planning, transport, landscape architecture, housing and green infrastructure as well as with communities in a sustained manner over time, producing examples of collaborative work where very localised actions have been taken to create the conditions that support children's play, including safety from traffic (Russell *et al*., 2019, 2020). Such a localised approach has also been promoted in the literature on spatial justice aspects of the Well-being of Future Generations (Wales) Act 2015, acknowledging the unequal distribution of spatial wellbeing (Jones, 2019; Jones *et al*., 2020).

Children's digital lives

Although children's digital lives are lived both offline and online, and with no clear boundary between the digital and the non-digital (Arnott *et al*., 2019; Dekavalla, 2022; Potter and Cowan, 2020), most policy focuses on children's use of online services and platforms. There has been a growing number of initiatives aimed at keeping children safe, although less attention has been paid to evaluating such initiatives independently (Livingstone *et al*., 2017). Broadly, until recently, initiatives have included addressing both children's and parents' digital literacy and resilience through education and support programmes and digital design, some law enforcement initiatives (particularly CEOP, the National Crime Agency's hub for intelligence on sexual exploitation of children online) and industry agreements with governments (Livingstone, *et al*., 2017).

The early days of the internet gave rise to moral panics about children's safety in an 'ungovernable "Wild West", unsafe for the impressionable young' (Livingstone *et al*., 2018, p. 1105). In response to media coverage, the increased role of the internet in everyday life and a lack of confidence in self-regulation, the European Union began to move away from the principle of self-regulation of the internet and enacted a range of measures in the late 1990s and early 2000s aimed at protecting children through co-regulation (working with providers to agree codes) and public awareness (Dekavalla, 2022; Livingstone *et al*., 2018). In addition, research into children's actual experiences of

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[48] These issues are briefly introduced here with reference to policy. Chapter 4 considers them further in terms of children's play patterns, and chapter 5 revisits them with reference to broader issues of adult actions to support children's capability to play.

internet use, in line with concepts from the new social studies of childhood at that time, moved beyond the public's and policy makers' homogenised view of children as vulnerable innocents towards a more complex and nuanced construction of children as recipients, participants and actors in both the opportunities and risks that the internet afforded (Livingstone *et al.*, 2018). By the mid-2000s, as the internet became much more a part of everyday life, 'researchers – and, more reluctantly, policy-makers – came to recognize that while the Internet is important it is also ordinary, of this world rather than other worldly, its effects are evolutionary more than revolutionary' (Livingstone *et al.*, 2018, p. 1109). Research was more able to show what was risky, for which children and in what circumstances. As technology continues to change, Livingstone *et al.* (2018, p. 1117) suggest that 'the research agenda no longer concerns children's relationship with the Internet as a medium but, more profoundly, it concerns their relationship with the world as mediated by the Internet in particular and changing ways'.

In 2021, the United Nations Committee on the Rights of the Child published General Comment no. 25 on children's rights in relation to the digital environment (UNCRC, 2021), a document which 'set out for the first time that children's rights apply equally online and offline … [and] how states should interpret children's rights in relation to the digital world' (Kidron, 2021b, p. 7). The General Comment recommends integrating children's online lives into general policies for children:

'States parties should ensure that national policies relating to children's rights specifically address the digital environment, and they should implement regulation, industry codes, design standards and action plans accordingly … Children's online protection should be integrated within national child protection policies' (UN Committee on the Rights of the Child, 2021, p. 4).

In terms of industry codes and design standards, the UK Information Commissioner's Office (ICO) has published a code of practice for age-appropriate design for online users, which sets out 15 standards focusing on data protection, summarised as:

'Settings must be "high privacy" by default (unless there's a compelling reason not to); only the minimum amount of personal data should be collected and retained; children's data should not usually be shared; geolocation services should be switched off by default. Nudge techniques should not be used to encourage children to provide unnecessary personal data, weaken or turn off their privacy settings. The code also addresses issues of parental control and profiling' (ICO, 2020, p. 4).

More directly, the UK government has been preparing UK-wide online safety legislation and regulation for several years, seeking to move beyond self-regulation and co-regulation to hold providers responsible for the safety of users (Dekavalla, 2022). Following an Online Harms White Paper in 2019, an initial draft Online Safety Bill was published in May 2021, with a Joint Committee on the Draft Online Safety Bill taking evidence from interested parties. The Online Safety Act 2023 applies across the whole of the UK and requires 'social media platforms, search engines and other apps and websites allowing people to post their own content to protect children, tackle illegal activity and uphold stated terms and conditions' (Department for Digital, Culture, Media and Sport, 2022). The lengthy drafting process gave rise to passionate debates concerning, for example, the balance of regulation and freedom of speech; the practicalities and logistics for tech companies to comply; the balance between regulation and promoting media literacy; and addressing inequalities in terms of online safety (#OnlineSafetyBill on X [formerly Twitter]; 5Rights Foundation, 2022; Joint Committee on the Draft Online Safety Bill, 2021; Livingstone, 2021).

Also making its way through the UK Parliament at the time of writing is the Age Assurance (Minimum Standards) Bill, a Private Members' Bill brought by Baroness Kidron, the Chair and founder of 5Rights Foundation, an organisation campaigning for children's rights in the digital world. The bill aims to fill the gaps in both the Online Safety Act and the age-appropriate design code (ICO, 2020), addressing the fact that many children access sites designed for adults. The point here is not solely to restrict children's access (although that is relevant for some sites), but to require minimum standards of age identification and assurance that can make sure service providers know who is using their services and therefore encouraging responsibility in terms of design. This could include, for example, disabling 'intrusive or risky design features such as geolocation data tracking, private messaging or targeted advertising (5Rights Foundation, 2021, p. 7).

The 5Rights Foundation worked with the United Nations Committee on the Rights of the Child to write General Comment no. 25. The General Comment references the 4Cs categories of online risks described in section 2.3.1 (Livingstone and Stoilova, 2021) in its list of online risks relating to

'content, contact, conduct and contract [that] encompass, among other things, violent and sexual content, cyberaggression and harassment, gambling, exploitation and abuse, including sexual exploitation and abuse, and the promotion of or incitement to suicide or life-threatening activities, including by criminals or armed groups designated as terrorist or violent extremist' (UN Committee on the Rights of the Child, 2021, p. 3).

General Comment no. 25 also has a section on Article 31 rights (culture, leisure and play), which encourages governments to regulate and collaborate with digital service providers to ensure that games, platforms, devices and other services that children can access encompass 'data protection, privacy-by-design and safety-by-design approaches' (UN Committee on the Rights of the Child, 2021, p. 18) in ways that do not prioritise commercial interests over those of children. It identifies six ways to promote children's play in the digital environment:

'• Value the qualities of free play and children's own views of their play (para 106)

• Identify the benefits of free play in the digital environment (para 107)

• Develop guidance for professionals, parents/carers and digital providers (para 108)

• Ensure a balance between digital and non-digital play (para 109)

• Promote "playful by design" and minimise "risky by design" (para 110)

• Position digital play within a child rights framework (para 111)' (Livingstone and Potong, 2021, p. 16).

In terms of policy in Wales, the Welsh Government actions to promote and support children's safety online have mostly been focused on education and training for children, caregivers and professionals; on collaboration; and on providing guidance and resources (Welsh Government, 2018). Much of this happens through Hwb, the digital platform for teaching and learning in Wales, via their 'keeping safe online' zone. There is a focus here on 'digital resilience', defined as supporting the 'knowledge, skills and strategies in order for children and young people to manage their online experience safely and responsibly while protecting their digital identity', and encompassing online safety, cyber security and data protection (Welsh Government, 2020f). Beyond the concern with children's safety online, the issue of connectivity and addressing digital exclusion is acknowledged in the Future Generations Commissioner's 2021 report, with a recommendation to the Welsh Government that broadband is identified as a critical public service.

Mental health

The Welsh Government's ten-year strategy to improve mental health, *Together for Mental Health*, was first published in 2012, with associated three-year action plans. The 2019-2022 delivery plan was updated in 2021 to include responses to the impact of COVID-19 (Welsh Government, 2020c, 2021c). It aligns with the requirements of the Well-being of Future Generations (Wales) Act 2015, the Social Services and Well-being (Wales) Act 2014, and also *A Healthier Wales* (Welsh Government, 2021d). In doing so, it embraces the principles of prevention, integrated services, co-production and early intervention.

A priority for the 2019 to 2022 plan is support for the emotional and mental wellbeing of children and young people, including action to reduce adverse childhood experiences (ACEs), which is also a key element of the Well-being of Future Generations (Wales) Act 2015.[49] In addition, there is a focus on the role of schools through the Curriculum for Wales 2022, which has health and wellbeing as one of the seven areas of learning. One current action is the introduction of mental health literacy programmes for children aged 13 to 14 years. Mental health literacy aims to improve children's knowledge and understanding of mental (ill) health, thereby aiming to reduce self-stigma which can prevent adolescents from seeking early help and treatment. The programme includes '(a) prevention through good mental health behaviours, (b) symptom recognition, (c) self-help strategies, (d) help seeking strategies and treatment options, and (e) how to support others in need' (Simkiss *et al.*, 2020, p. 2).

Both ACEs and mental health literacy entail interventions that act predominantly at individual and family (micro) levels with the intention of building protective factors and resilience (Welsh Government, 2020d), potentially placing responsibility at these levels. The dominant biomedical psychiatric construction of mental health often found in communications, including literacy programmes, presents itself as scientific, objective and neutral. Critics suggest this obscures the extent to which such constructions – and indeed mental health itself – are entangled in the ongoing production of social and cultural values and understandings of the relationships between mind, body and society (Teo, 2015; UN General Assembly, 2020; van Beveren *et al.*, 2020). For example, Wilkinson and Pickett (2009) draw on empirical research to show the interrelatedness of income inequality and mental health. The 2010 Marmot Review of health inequalities in England and its 10-year follow up also showed these links for all aspects of health and for life expectancy (Marmot *et al.*, 2020).

The concept of health inequalities bears some scrutiny here and is relevant for issues regarding obesity and physical health also. Governments have for some time acknowledged the social determinants of health and therefore accepted that the health of those living in poverty and with other forms of inequality experience significantly poorer health and die younger than their richer compatriots (Mackenzie *et al.*, 2020; Scott-Samuel and Smith, 2015). Indeed, Marmot *et al.* (2020) outline how steady improvements in life expectancy and the health of those in poverty in England have stalled or deteriorated since 2010 (with similar unprecedented damage to health and wellbeing in Wales, Scotland and Northern Ireland). Austerity has had a significant impact on the social determinants of health, including rising child poverty, cuts to public services including education, and increases in work precarity, the use of foodbanks and homelessness (Marmot *et al.*, 2020). The UK government's response to the COVID-19 pandemic and to the current cost of living crisis has, and will continue to, increase health inequalities and child poverty (Marmot *et al.*, 2022).

While governments may acknowledge the social determinants of ill-health, actions taken to address health inequalities, whilst well-intentioned, have tended to be at micro level (for example, education and individual support to change lifestyles and behaviour, as seen in the critiques of ACEs and the measures described above),

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[49] See section 2.3.1 for a discussion on ACEs.

perhaps occasionally at meso level (addressing issues such as employment or housing) but rarely at macro level in ways that can challenge the structure of society and the power imbalances that create health inequalities:

'In a capitalist society, where liberal macroeconomic policies position virtually all economic activity – including unhealthy activity – as beneficial, there is an inbuilt incentive to "blame the victim" rather than to tackle the corporate and economic causes of the problem' (Scott-Samuel and Smith, 2015, p. 420; see also Mackenzie *et al*., 2020).

Such incentives may help to explain the stubborn persistence of health inequalities (and their rise since 2010). The six domains in the original 2010 Marmot review are revisited in the 2020 follow up and outline the need to address inequalities at all levels, including macro level, to address health inequalities. These domains include:

- give every child the best start in life

- enable children, young people and adults to maximise their capabilities and have control of their lives

- create fair employment and good work for all

- ensure a healthy standard of living for all

- create and develop healthy and sustainable places and communities

- strengthen the role and impact of ill-health prevention (Marmot *et al*., 2020, p. 7).

These domains bear a striking similarity to the wellbeing goals of the Well-being of Future Generations (Wales) Act 2015; indeed, the act is included as a case study of how it might be possible to address issues of health equity through national governance that looks beyond economic growth (Marmot *et al*., 2020). In this way, the act has the potential to make radical changes to meso and perhaps also macro level determinants of health inequalities at national level if not beyond. However, this will need a commitment to work at that national level and not only at micro levels (individual, family and community). As Mackenzie *et al*. (2020, p. 1) state, even for those policy makers committed to social justice: 'the pervasive, health-damaging political context (in the form of decades-long neo-liberal policies and practices) ensures that more progressive policies swim against the tide'.

Returning to the current Welsh Government action plan for *Together for Mental Health*, its broader ambitions recognise the importance of creating the conditions for people of all ages to be well, including aspects such as reducing inequalities, tackling poverty, and crime and justice (Welsh Government, 2020c). These aspects recognise that wellbeing is relational and spatial, linking more broadly to integration with other policy areas such as planning and transport. The Children's Rights Impact Assessment on the 2019-2022 delivery plan (Welsh Government, 2020d) lists a number of articles of the UNCRC that the delivery plan supports. However, Articles 15 and 31 are not included. Given the relationship between play and wellbeing outlined in this review (see chapter 3), together with the potential for the Play Sufficiency Duty to support the conditions for children to find sufficient time, space and permission to play, we suggest this would be a useful inclusion.

Physical activity and obesity

Physical and mental health are interrelated and interdependent, and similar critiques of the personal responsibilisation for maintaining healthy body weight show how much it plays out across lines of class, race and gender (Medvedyuk *et al*., 2018; O'Hara and Taylor, 2018).[50] The youth and community summary of the Welsh Government's obesity strategy *Healthy Weight: Healthy Wales Delivery Plan 2020-2022* (Welsh Government, 2020e, p. 2) demonstrates such responsibilisation in its opening words:

'Being healthy is about making the right choices. It's about:

- eating healthy food
- drinking water
- being active.

The Welsh Government wants to help people make healthy choices and be active.'

The Curriculum for Wales (Welsh Government, 2020a) also requires schools to offer opportunities for physical activity and to teach children about healthy lifestyles. However, alongside this opening responsibilisation and several actions that focus on individuals, the action plan also outlines a number of actions to make environments healthier, including working with the food industry to promote healthier food availability, supporting active travel and access to natural spaces, healthy and active learning environments, and assessing and securing sufficient play opportunities, as required by the Play Sufficiency Duty. Supporting this is Public Health Wales' *Planning and Enabling Healthy Environments* (Johnson and Green, 2021). The resource, aimed at local authorities preparing Local Development Plans, notes that 'access and barriers to healthy environments are often influenced by deprivation levels, and COVID-19 has likewise highlighted these inequalities' (Johnson and Green, 2021, p. 4). It outlines several Welsh Government policies that promote the connection between 'placemaking' and health and wellbeing, including both mental and physical health. The focus on integrating public health with the planning system is encouraging for supporting a focus on the conditions that can support all people to be well.

From a philosophical perspective, Nielsen (2021) argues that the duty for governments to protect children's capability to play is a public health issue. Drawing on Nussbaum's capability approach, he suggests that the capability to play is a fundamental aspect of a dignified human life. It is one of Nussbaum's ten central human capabilities (for all ages), of political importance for its intrinsic value. Additionally, children's capability to play is a concern to public institutions because of its instrumental value, in terms of its contribution to social and cognitive development (and others would add for its contribution to children's health and wellbeing, as chapter 3 shows). The duty to protect children's capability to play falls to public health systems because of their role in addressing the social determinants of health, particularly health inequalities as a matter of social justice. For children facing disadvantage, play as a functioning can beneficially affect other functionings, thereby mitigating some aspects of social disadvantage. Nielsen (2021) makes a complex philosophical argument that has been simplified and summarised here, however, his case is that in terms of a theory of justice, health systems have a duty to protect children's capability to play. As Marmot *et al*. (2020, p. 6), drawing on Sen's capability approach, state, 'What we can envisage, and work towards, is a society that creates *the conditions* for everyone to be able to lead lives they have reason to value' (our emphasis). This line of reasoning is revisited in section 2.3.8 where we suggest a framework for considering children's wellbeing through their capability to play.

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[50] See section 2.3.1.

Youth crime and youth violence

In reviewing policy responses to addressing and preventing youth violence and also child criminal exploitation, we could find nothing that explicitly talks about the importance of children being able to play. There may be several reasons for this, including a lack of cross-professional working with the youth justice system. The summary of key literature on the topic is given below, even though it may not initially appear to be relevant to a review on children's play, because we feel that this can inform future approaches to cross-professional working.

The youth justice system deals with children aged 10 to 17 years. Unlike most other children's services, the youth justice system is not currently fully devolved to the Welsh Government, despite such devolution being a key recommendation in the report from the 2019 Commission on Justice in Wales (Thomas Commission) and of the previous Silk Commission in 2014. Responsibility for the oversight of the youth justice system in Wales rests with the Youth Justice Board for England and Wales, a non-departmental public body sponsored by the UK Ministry of Justice (Commission on Justice in Wales, 2019). However, 'activity on the ground depends very largely on devolved services whose work is determined by the Welsh Government (Butler and Drakeford, 2013, p. 17). The dual accountability that this entails raises some challenges for the Welsh Government's principles of preventative working, integration and a rights-based approach to policy for children, alongside the overarching requirement to promote wellbeing as enshrined in the Social Services and Well-being (Wales) Act 2014 and the Well-being of Future Generations (Wales) Act 2015 (Commission on Justice in Wales, 2019; Ministry of Justice/ Welsh Government, 2019; Williams and Daniel, 2021). One example of the tension is that the Welsh Government is seeking to raise the age of criminal responsibility from 10 to 12 years. As the Commission on Justice in Wales (2019, p. 203) states:

'There are better ways to deal with children and young people than criminalising them ... 10 is too young. It does not comply with United Nations Convention on the rights of the child.'

The non-devolution of youth justice to Wales represents 'one of the major fault lines in the current constitutional settlement between Wales and England' and at the same time offers 'an opportunity to assess the extent to which a distinctive approach can be developed in Wales, within the constraints of present arrangements' (Drakeford, 2009, p. 8). These words are from Mark Drakeford writing then as a Professor of Social Sciences at the University of Cardiff, before becoming a member of the Senedd in 2011 and then First Minister for Wales in 2018. This distinctive approach has been termed 'dragonisation' (Evans *et al*., 2022; Haines, 2009;). For youth justice it was about embedding Welsh Government principles into strategies for youth justice in Wales. This was exemplified in the first All Wales Youth Offending Strategy (Youth Justice Board and Welsh Assembly Government, 2004, p. 3), which promoted 'the principle that young people should be treated as children first and offenders second'. At the time, this was in stark contrast to UK government policies, which have been categorised as increasingly punitive (Case and Haines, 2021; Deakin *et al*., 2022; Evans *et al*., 2022). However, it has been argued that the Children First philosophy actually originated in 1980s England, and that the categorising of Wales' approach to youth justice as rights-based and England's as punitive was overly simplistic, given that implementation was patchy and there were examples of good practice in both countries. In addition, austerity measures (beyond the control of the Welsh Government) and the fallout from Brexit also mean that resources to support implementation have been reduced (Evans *et al*., 2022).

Nevertheless, the approach, which seeks to divert children away from the criminal justice system, has had significant successes in Wales: an 86% reduction of first-time entrants into the youth justice system since 2008 (Commission on Justice in Wales, 2019), with an 83% reduction of those in custody between 2009 and 2019, compared with a 66% drop in England (Youth Justice Board, 2020, cited in Evans *et al*., 2022).

Williams and Daniel (2021) note that on occasions, despite the principles of putting children first and respecting their rights and wellbeing, adult-led and inflexible procedures that are intended to support young people can fail because the young people themselves do not take up the opportunities offered. They suggest that a capability approach could help practitioners work to identify what the young people need to have the capability to lead a life they value. For example, if a young person steals food because they and their siblings are hungry, education or counselling aimed at helping them to understand the consequences of their actions would not address the social justice issues that mean they do not have the capability to be and do well.

The Wales Violence Prevention Unit brings together members from police forces, the Office of the Police and Crime Commissioner, Public Health Wales, His Majesty's Prison and Probation Service (HMPPS), and the voluntary sector. The model promoted in their strategy to prevent serious youth violence in South Wales (2020-2023) includes identifying risk and protective factors for those likely to become involved in violence and working to strengthen those protective aspects and reduce the associated risks. At a community level, protective factors include well-functioning community spaces and public services, although there is no explicit mention of what may support children's play safely in such spaces and services. Whilst the strategy recognises social and community level factors, it has a bigger focus on relationships and individual level risks and protective factors. As with policy on mental health and in the Well-being of Future Generations (Wales) Act 2015, the strategy also emphasises the multiple risk factors that emanate from adverse childhood experiences (ACEs).

ACEs also feature highly in the Enhanced Case Management (ECM) approach to working with those who are in the youth justice system. Given the considerable reductions of children entering the youth justice system, those who remain within it or do enter it tend to 'present with adverse childhood experiences (ACEs), trauma and complex needs' (Glendinning *et al*., 2021, p. 1; see also Case and Haines, 2021; Commission on Justice in Wales, 2019). Enhanced Case Management is a multi-agency approach to case formulation that is trauma informed and aimed at understanding children to develop their strengths and potential, working with 'the notion that change needs to develop from relationships, flexibility, kindness and safety rather than rules, consequences and accountability' (Glendinning *et al*., 2019, p. 4). In their evaluation of the ECM approach, Glendinning *et al*. (2019) found that Youth Offending Team (YOT) workers felt that the children they worked with were not ready to engage meaningfully with traditionally offered cognitive-behavioural interventions. They also reported that others within the youth justice system needed to understand trauma-informed practice and the principle of children first and avoid criminogenic stigma through labelling language and treating children as responsible adults (Glendinning *et al*., 2019).

In terms of policy responses to child criminal exploitation, one systematic review found little research about what works for children who are involved, or at risk of becoming involved, in criminal exploitation (Maxwell *et al*., 2019). At that time there was 'no specific legislation or policies for child criminal exploitation' (p. 8), and 'There is often confusion as to what should be addressed first, criminality or child protection needs' (p. 21). Noting that child criminal exploitation is complex, they recommend interventions at national, community, family and child level. Social Care Wales' (2021) *Practice Guide on Safeguarding Children from Criminal Exploitation*, aimed at practitioners working with children up to the age of 18 years, clearly positions criminal exploitation as a safeguarding issue, defining it as a form of child abuse. The guide reiterates the rights-based approach to all work with children, noting that some children fail to recognise their experiences as exploitative. Practitioners' responses to suspected exploitation should follow normal safeguarding procedures, unless there is immediate risk of harm, in which case the police should be informed.

2.3.7 Revisiting child development

Section 2.2.1 in this chapter on studying childhoods opened with an account of developmentalism as a dominant paradigm. As was stated, developmentalism is a term applied to over-simplified and reductive accounts of universal and predictable ages and stages of development, and their enduring influence on policy and professional practices (Gabriel, 2020; Wood, 2020). Tatlow-Golden and Montgomery (2021, pp. 3-4) summarise the critiques of developmentalism as:

'being obsessed with the 'normal' child and its universal, unchanging needs; being ethnocentric and taking little account of diverse childhoods while researching almost exclusively middle-class children in Western countries; using Western developmental patterns as the norm and downplaying the different capacities, competences, interests and developmental trajectories of poorer and less privileged children both in the West and in other parts of the world; promoting a deficit model of childhood which fails to understand the complexity of children's different competences or appreciate individual or cultural diversity; and finally believing themselves to be part of a neutral scientific endeavour, positioning themselves above politics and claiming to generate value-free "objective" knowledge and evidence on which policy and practice are based.'

As was highlighted in section 2.2.1, such a depiction of developmentalism should be distinguished from significant strands of developmental psychology which do take account of difference, complexity and socio-cultural context (for example, Burman, 2019; Fleer, 2010; Fleer, Rey and Jones, 2020; Gabriel, 2021; Prout, 2007; Tatlow-Golden and Montgomery, 2021; Tisdall and Punch, 2012; Woodhead, 2015). From an evolutionary biology perspective, Fagen (2011, p. 84) asserts that 'individuals, including humans, tend to optimize their fit to present circumstances while somehow mustering enough flexibility to adjust when those circumstances change'. At the same time, scholars of the social studies of childhood have acknowledged the need to move beyond the biosocial duality and take other disciplines into account, including psychology and biology (Kraftl and Horton, 2019; Lee and Motzkau, 2011; Prout, 2011; Ryan, 2011).

Having reviewed the contemporary literature on childhood studies and on children and play in social policy, we now briefly return to the idea of child development and contemporary perspectives that look beyond simplified and reductive ideas of child development as universal, decontextualised, predictable and linear.

There is a range of critical responses to such reductionism, some of which identify as 'post-developmentalism' (Edwards *et al*., 2009; Janssen, 2008; Murris, 2017). Here, scholars aim not to dismantle the idea of development entirely but to rethink its purpose and effects as a concept (Burman, 2013, 2017). Examples include the growth of studies across both natural and social sciences looking at non-linear dynamic systems approaches (Bergen *et al*., 2016; Fagen, 2011; Fromberg, 2015; Oyama, 2016), ecological perspectives (Sameroff, 2010), cultural-historical theories (Edwards *et al*., 2019; Fleer and Hedegaard, 2010; Hedegaard, 2019), critical theory – as an umbrella concept (Blaise and Ryan, 2019; Jones, 2019), queer theory (Dyer, 2017; Janssen, 2008), critical race theory (Bryan, 2021; Busey and Gainer, 2022), critical disability theory (Goodley, 2017; Goodley and Runswick-Cole, 2012; Goodley *et al*., 2019), disability critical race theory (DisCrit) (Love and Beneke, 2021), feminist poststructuralism (Edwards *et al*., 2009), relational and embodied perspectives (Gabriel, 2020), posthumanism and new materialisms (Aslanian, 2018; Burman, 2018; Murris, 2016a, 2016b) and more.

These approaches are not homogeneous and there are many variations in approach and central tenets. Generally speaking, however, many of the 'critical' social theories have social justice as both a fundamental aspect and a goal through paying attention to structural processes of privilege, power, erasure and oppression, and through

integrating theory and practice to promote change, working at the intersections of micro and macro levels (Jones, 2019). Posthuman, new materialist, queer and postcolonial approaches seek to build on these critical approaches and also to challenge 'liberal bourgeois humanism' (Burman, 2018, p. 1600), to 'elaborate ways of destabilising the humanist subject from its privileged place within models of social practice' (*ibid*., p. 1603) and to 'explore further the move from a singular, bounded individual to multiple, mobile, collective subjectivities, … unhinging the child from the origin point of any development story' (*ibid*., p. 1605). 'Development', 'growing up' and 'progress' are concepts that are reworked, for example through Stockton's (2009, cited in Burman, 2018) invitation to explore the notion of 'growing sideways'. In addition, the human is removed from its privileged position apart from and acting upon 'nature' and the materiality of the world to become entangled and to dissolve any separate, pre-existing identity. The focus turns to a radical relationality that is complex, mutual and interdependent but not symmetrical or equal (Aslanian, 2018; Burman, 2018; Murris, 2016a, 2016b), and to a focus on ontology (theories of being) rather than epistemology (theories of knowing), or on 'mattering' rather than 'meaning' (Rautio and Jokinen, 2016, p. 37). Murris (2019, p. 56) argues for 'a posthuman reconfiguration of child subjectivity [that] moves theory and practice from a focus on assessing the capabilities of individual children in sociocultural contexts to the tracing of material and discursive entanglements that render children capable'. Such a perspective also reconfigures the capability approach beyond the focus on individual freedoms, as discussed further below.

Moving beyond biosocial dualities in rethinking children's development requires engaging seriously with and persevering with the difficulties of transdisciplinary work (Youdell, 2017; Youdell and Lindley, 2019; Youdell *et al*., 2020). Traditionally, social theory has considered multiscalar socio-political contexts, biology the workings of the body (including development and evolution) and neuroscience the workings of the brain. Each brings disciplinary and methodological traditions that may open up new connections but may also be contradictory or incompatible (for example, some social scientists' commitment to social justice and some natural scientists' commitment to 'neutral' research).

Furthermore, the growing inroads of neurobiology into the management of everyday life in the twenty-first century, particularly through public policy, is perhaps challenging the dominance that psychology held in the twentieth century (Rose and Abi-Rached, 2014). Many of the studies reviewed so far in this chapter have been heavily critical of what is seen as a reductive biological determinism masquerading as neutrality that is used by policy makers in ways that responsibilise the poor and other oppressed groups (for example, Edwards and Gillies, 2020; Edwards *et al*., 2022),[51] particularly in the fields of neuroscience and genetics (Youdell, 2017).

Echoing Youdell's (2017) call to engage in transdisciplinary research, Pollak and Wolfe (2020) argue that neuroscience can play a key role in informing policy responses to child poverty. Rather than focusing on interventions to address 'poor parenting' (Edwards *et al*., 2019; Lambert, 2019; Lowe *et al*., 2015), research that evidences the effects of poverty on brain development may encourage policy initiatives to address poverty itself.

Oyama (2016) critiques the discourses of information in genetic studies: genetic codes, programmes and instructions, and a 'triad of infocentric understandings of: heredity as transmission of genes "through" organisms; development as their "expression"; and evolution as change in gene frequencies' (Oyama, 2016, p. 94). Such discursive practices seek rational and stable certainties and draw causal generalisations from empirical regularities, also setting up and perpetuating binaries of nature and nurture, biology and culture, body or matter and mind, and so on.[52]

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[51] See section 2.3.1.

[52] These ideas are explored in relation to research on children's play in chapter 3, sections 3.4 and 3.5.

Sheets-Johnstone (2011, 2020) argues that people are not information processors with inputs and outputs, they engage dynamically with environments. Dynamic engagement is, first and foremost about the primacy of movement. Development does not happen because it is programmed, rather it happens through activity of the system. A sense of self grows through how the body feels and what it can do: 'movement is first of all the mode by which we make sense of our own bodies and by which we first come to understand the world … as infants, we come to grasp objects, literally *and* epistemologically, through movement' (Sheets-Johnstone, 2011, p. xxv). Such an embodied foregrounding of movement is in stark contrast to developmental psychology and education studies, where the focus is on cognitive, social and emotional development and the primacy of the brain and/or mind, and the body becomes almost invisible (Sheets-Johnstone, 2018). Yet her argument is that movement is the basis for cognition.

Despite growing critiques and evidence, the information discourse, together with the nature/nurture and other dualisms, stubbornly remain. Many are embedded in what has been called the 'new geneism', the renewed interest in genetics and heritable traits, including intelligence, that has been controversially taken up in policy (Gillborn, 2016). One example is an essay written by Dominic Cummings (2013) when he was advisor to the then UK Secretary of State for Education, Michael Gove. The essay cites evidence showing that intelligence, general cognitive ability and academic achievement are heritable, that is, they are a question of genes, being more a question of nature than nurture. Cummings (2013, p. 74) argues for a personalised approach to education that can 'give all children the opportunity to make the most of their genetic inheritance (personality as well as IQ)'. The argument is couched in the language of social mobility. Gillborn (2016) argues that questions of race are deliberately invisible in this essay (apart from a rhetorical question in a footnote), and in similar arguments about genetics and education. Nevertheless, it adds to historic debates on racial differences in inherited intelligence based on understandings of genetics and intelligence that have been critiqued and discredited from within the disciplines of evolutionary biology and neuroscience, particularly in terms of their generalised applicability to specific populations across class, race or gender (see, for example, Rose, 2009).

Moving beyond the nature/nurture dualism, Oyama's (2016) developmental systems theory is as radically relational as the posthuman and new materialist approaches to childhood studies described in section 2.2.3, bringing back spatial considerations alongside the enduring emphasis of the temporal (that is, development unfolding over time). Minds are more than embodied and embedded, organisms emerge as they are affected by and affect environments, meaning that categories of innate and acquired characteristics become questionable. 'Interactions are system-dependent even as they affect the system, and to develop is to help "make" a world for oneself and others, in ways benign and otherwise' (Oyama, 2016, p. 95). This is also in line with Youdell and Lindley's (2019) assertion that life itself unfolds through the entanglements of the biological and the social.

One area where the biological and the social enfold one another is in the growth of studies in epigenetics. Meloni and Testa (2014) note that epigenetics (and its allied concept epigenomics, applying to the whole genome), is an ambiguous term used in different ways, and that this may actually be part of its success and popularity in research and policy communities. Mostly, it is understood as lasting changes in gene function that do not alter the DNA sequence. In other words, experience affects gene expression in ways that can last beyond the experience and can potentially be transmitted to the next generation (Niewöhner, 2011; Youdell, 2017). Chung *et al*. (2016, p. 169) argue that 'social epigenetics' has the potential to offer a 'science of social science … [where] the quest is not to better understand the role of genetics in society but to develop a multi-scale epigenetic explanation of complex organizational and social behaviour, from cell to society and back again' (p. 171).

Despite the potential for such research to finally dissolve the binaries of nature and nurture in theories of human development (Meloni and Testa, 2014), separations of the biological and the environmental persist (Lloyd and Müller, 2018). Deichmann (2020) argues that social scientists have fixed a definition of epigenetics that is internally inconsistent and not scientifically sound to foreground the role of the environment in gene expression

and transgenerational epigenetic inheritance. Richardson *et al*. (2014) describe how epigenetics has been used to underpin theories of the Developmental Origins of Health and Disease (DOHaD) in ways that blame pregnant mothers for passing on susceptibility to disease, pointing out that foetuses can also be affected by epigenetic effects of sperm or social and environmental effects (for example, through pollution or stress). Yet Melloni and Testa (2014) argue that the possible epigenetic influences on DOHaD could be used to inform policies aimed at addressing the effects of inequality, poverty and deprivation, but could equally repeat past understandings of inheritance that became 'fertile terrain for intensely racist and eugenic discourses' (p. 447). It seems that the politics of the nature/nurture debate is set to continue.

2.3.8 Bringing the ideas together to suggest a framework for the review

In closing this chapter, we pull together some of the key critical perspectives raised in the review of both childhood studies and policy to make a tentative suggestion for framing our review of the literature on children's play. We propose an approach that works in an open-ended, nomadic, even playful way with ideas of wellbeing, spatial justice, relational theories and an adapted, relational capability approach in the hope that this offers possibilities for both theorising children's play and its relationship to policy and practice.

The capability approach[53] offers much for considering spatial justice for children in terms of their capability to play and the benefits that brings both for enhancing life in the moment and longer-term wellbeing for children and communities. Capabilities are the opportunities and freedoms for people to be able to be and do what is of value to them; resources that support such opportunities and freedoms can be 'converted' into 'functionings' (people *actually* do and are the things they value) across personal, social and environmental factors (Robeyns, 2017). From a relational and posthuman perspective, these factors are inextricably entangled, and so a relational capability approach would pay attention to the 'material and discursive entanglements that render children capable' (Murris, 2019, p. 56). These entanglements include other bodies (human, non-human, institutional, elemental and more), material and symbolic objects, everyday practices and structures, the production of public and institutional spaces and much more.

As has been said, a key criticism of the capability approach, particularly in Sen's formation, is its emphasis on individual freedom and rational choice (Fattore and Mason, 2017). Relational approaches to wellbeing suggest that 'life goes on through a desire to form arrangements or assemblages that are conducive to being well; bodies and things co-compose situations in which life can flourish' (Lester, 2020, p. 85). A relational perspective on freedom can position it not as a rational, individual choice, but as 'a quality of acts' (Gallagher, 2019, p. 193). Such acts arise through encounters.

The Welsh Government has shown in its rights-based approach to policy for children's play, and in its openness to partnership working that it acknowledges both the instrumental value of play as social investment and its intrinsic value (Welsh Government, 2014). The proposal offered here opens up possibilities for considering both and hopefully for keeping in check the powerful forces of neoliberalism.

If playing is seen as one of the ten central human capabilities in Nussbaum's (2007) list, then a capability approach to wellbeing would need to pay attention to the spatial, temporal and affective conditions that support play. As Nielsen (2021) notes, protecting the capability to play is a duty of political institutions, particularly of public health systems, both for its intrinsic and instrumental value.

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[53] See section 2.3.5.

Chapter 3

The role of play in children's wellbeing

3.1 Introduction

'Children's play is political. It is the site of complex cultural conflicts that involve moralistic proclamations about parenting styles, and ideological assumptions about the nature of childhood. These in turn often reflect and reinforce enduring class and gender divides. While the ideological conflicts surrounding play are ongoing and unresolved, they nonetheless have tangible repercussions for children – and for the adults who care for them (Grimes, 2021, p. 5).

Within popular and academic discourses, children's play is conflictingly envisioned in deeply romantic, anxiously "puritan" … and optimistically purposive terms. On one hand, children's play is idealized as a sacred realm of activity that must be protected from adult corruption. On the other hand are recurring fears about the potential negative consequences of idle, violent, or otherwise "misspent" leisure time. Concurrently, children's play is aligned with various educational and other beneficial outcomes, through which emphasis is placed on its role in transforming children into productive adults' (Grimes, 2015, p. 129).

These opening quotations, both from a specialist in children's digital play, follow on from the discussions in chapter 2 about how the period of childhood is constructed in research and policy in ways that affect real children's lives. This chapter continues this critical line of enquiry into research on the relationship between children's play and their wellbeing. It also builds on the framing we have suggested in terms of wellbeing and creating the conditions for children to be and do well.

In the last few decades, there has been a surge of interest in studying children's play in the minority world, across a broad range of natural and social science perspectives including biology, evolutionary studies, ethology, neuroscience, developmental and educational psychology, therapeutic approaches, sociology, geography, anthropology, folklore, philosophy and more (Burghardt, 2015; Göncü and Vadeboncoeur, 2015; Johnson, 2015; Whitebread, 2018; Wood, 2012). This is evident in research funding for empirical research (for example, the Play in Education, Development and Learning [PEDAL] Research Centre at Cambridge University, set up with a donation from the LEGO Foundation); books theorising children's play (for example, Cohen, 2019; Henricks, 2015a; Lester, 2020; Sicart, 2014; Smith, 2010; Sutton-Smith, 2017); handbooks on children's play (for example, Brooker *et al*., 2014; Johnson *et al*., 2015; Pellegrini, 2011; Smith and Roopnarine, 2019); the establishment of an online wiki *Encyclopedia of Play Science* in 2012; and the launch of several academic journals on play (for example, the *American Journal of Play*, in 2008, the *International Journal of Play* in 2012, and the [now *International*] *Journal of Playwork Practice* in 2014).

Some of this interest, Whitebread (2018) suggests, is in reaction to changes in children's play that are seen as detrimental to children's overall wellbeing and development, for example, an increased and earlier focus on academics in education (Gray, 2013a; Lewis, 2017), increased urbanisation and the disappearance of children from the public realm (Dodd *et al*., 2021a; Gill, 2021; Shaw *et al*., 2015) and children's loss of contact with nature (Charles and Louv, 2009, 2020), or increased commercialisation of play, including digital and media-based forms (Bailey, 2011; Lewis, 2017; Z. Williams, 2013). Such changes are often perceived as a decline in children's play, although others have sought to show the complex nuances that challenge the more simplistic versions of such assumptions (see, for example, Lester, 2016b; Marsh and Bishop, 2013; Pedri, 2016; Pollock, 2019; Willett, 2014).[54]

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[54] The literature on the perceived decline in play is reviewed in more detail in chapter 4.

In addition, echoing Grimes' (2021) opening claim that play is political, current research interest is led by these concerns and 'has been focused mostly on the possible contributions of play to human development and on instituting play as an educational and developmental tool, rather than on the examination of play itself' (Göncü and Vadeboncoeur, 2016, p. 294) together with generalisations that obscure how differing sociocultural contexts for play can inform research, policy and practice (*ibid*.). Tudge *et al*. (2011) comment that most play research in the minority world tends to be from psychological disciplines using quantitative and experimental methods, whereas in majority world countries (even if researchers are minority world researchers) it tends to be naturalistic ethnography. There are limitations to both approaches in terms of contextualising children's play and the conditions from which it emerges.

We would agree that psychological research still dominates; however, 12 years have now passed since Tudge *et al.* (2011) made their observation, and as chapter 4 shows, there is a rich variety of ethnographic and geographic studies and research considering children's play patterns in the minority world. In this review, we have used sources from the UK or comparable European and/or anglophone countries, given that the focus is on the Welsh context. For this reason, cultural diversity is assumed to be amongst diaspora communities[55] with the complex hybridity that brings, and issues of international research or research in majority world countries are only considered when pertinent to the issue under consideration.

Research into the benefits of play has taken very different perspectives, including individual benefits for children, collective benefits, the benefits of different forms or types of play, and benefits or otherwise for different players across the range of social stratifications and their intersections. These of course are imposed categories, necessary perhaps to make sense of play's ambiguities and infinite variety. It should also be remembered that they are constructed categories that cannot exist in isolation from each other or from other aspects of children's lives and experiences. Given this, categories inevitably overlap, posing a challenge for how to present the research here.

To address this challenge, the chapter opens with a consideration of the relationship between play and wellbeing, reiterating the proposal for a relational capability approach introduced in chapter 2. This is followed by an overview of the different approaches to studying play, including how play is defined, the ways that different types of play have been theorised, and how research considers (or not) the diversity of children as players, before looking at how different disciplines approach the study of play, the politics of different approaches to the production of knowledge about play and the methodologies and methods used in research.

Following this, we review the relationship between play and evolution, a prolific area of research. This leads into an introduction to neuroscientific studies of play and wellbeing. In the sections that follow, we consider further the relationship between play and children's wellbeing, through playing with movement; playing with affect and emotions; the therapeutic role of play; playing with others; playing with things; and play, place and wellbeing. The chapter ends with a reflection on the role of playing and being well.

Given that we are presenting the review from a relational perspective, headings tend to be 'play and' or 'play with'. This is not to suggest that play is not valuable in its own right. Indeed, this review shows very clearly that it is a fundamental element of a good life (Lopez Frías, 2020) and a key contributor to children's wellbeing. Rather, these conjunctions acknowledge that play cannot exist in a vacuum and is always in dynamic relation to the rest of life.

There are perhaps key areas of play scholarship that at first glance may appear to be missing. One example is play and learning, another is play and creativity/innovation. These have not been given separate sections because they are thoroughly implicated throughout, although some cautionary explanation is warranted. If 'learning' is

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[55] That is, members of ethnic or religious groups who originated from one place but are now spread across different countries.

understood as 'change', a case that was made in *Play for a Change* (Lester and Russell, 2008), then this is clearly interwoven into all of the sections of the chapter. Cognitive development is not separated out from other forms of change. As regards play and creativity/innovation, this too is interwoven into multiple sections. Play offers a freedom from the constraints of reality (whilst paradoxically maintaining a relationship with it), a chance to imagine 'what if?' worlds, where bodies, emotions, relationships, the laws of physics and much more can be rethought in infinite and emergent ways (Corsaro, 2020; Lester, 2020; Levinovitz, 2017; Rautio and Winston, 2015; Riede *et al.*, 2018; Sutton-Smith, 2017; Wohlwend, 2020). From evolutionary to cultural studies, creativity is understood as the basis for individual and collective adaptiveness and change across interrelated scales from the molecular to the cosmological (Bateson, 2015; Bateson and Martin, 2012; Corsaro, 2020; Hoffman and Russ, 2012; Riede *et al.*, 2018; Sydnor and Fagen, 2012). As Sydnor and Fagen (2012, p. 78) argue, 'without play, the universe would be stagnant'. What this does is place value on the nonsense and humour of children's play, both for the joy it brings in the moment and for imagining the world differently (Hammershøj, 2021).

3.2 Play and wellbeing: opening thoughts

'Play is a key commitment of the young in many species' (Henricks, 2017, p. 8).

The relationship between play and wellbeing, both immediate and more long-term, has long been asserted in the literature (for example, Goldstein, 2012; Milteer *et al.*, 2012; Moore and Lynch, 2018; Sandseter *et al.*, 2022; Storli and Sandseter, 2019; Tonkin and Whitaker, 2019; Whitebread *et al.*, 2012), but what that relationship might be, and the quality of the evidence for it, is more problematic. Part of this is to do with play's great variety alongside the variety of players (Ahloy *et al.*, 2018; Held and Špinka; 2011; Sutton-Smith, 2017). Part of it is to do with how 'wellbeing' might be understood.

Chapter 2 considered critiques of the main approaches to measuring children's wellbeing and the ways in which such measurements contribute to the material-discursive practices of both policy and children's everyday lives. These critiques can be briefly summarised as:

• wellbeing is theorised as something individual children have and that can be acquired;

• wellbeing as a concept is context-free, obscuring structural inequalities and difference;

• together these first two points act to position individuals as responsible for their own wellbeing;

• ideas of what constitutes a good life are pre-defined and normative, perpetuating particular values;

• the use of wellbeing measures reduces the complexity of children's lives and promotes a focus on ill-being and deficits, despite an intended positive focus.

Recent commentary on wellbeing has suggested that it can still work as a useful concept if these criticisms are addressed. One possibility is to explore a relational and spatial approach to conceptualising wellbeing, in line with contemporary directions in childhood studies more generally. Such an approach understands wellbeing as fluid and dynamic, more as something that children *do* than a fixed state that children *have* (Fattore, 2020). Wellbeing as a process rather than a state emerges from the continuous production and reproduction of complex relations among people and other bodies (non-human, organisational, elemental), desires, circumstances, practices, places, systems, histories, values, landscapes, material objects, genes, politics and so on (Atkinson, 2013; Atkinson *et al.*, 2017; Lester, 2020; Pérez del Pulgar *et al.*, 2020; White, 2017).

Such a perspective is also evident in resilience research. Resilience is understood as 'the capacity of a system to adapt successfully to disturbances that threaten the viability, function, or development of the system' (Masten, 2019, p. 101), where a system can be, for example, an individual, an institution, a community or an ecosystem. Wellbeing therefore is dependent on resilience. As with wellbeing, resilience is seen as a dynamic process in relation with other systems. Ungar (2011), in discussing the social ecology of resilience, stresses the importance of being able to navigate towards resources that support wellbeing and to negotiate for those resources to be available. This approach resonates with the capability approach we have proposed, and which was introduced in chapter 2 and is revisited in the section below. From a developmental systems perspective, Masten (2014) has identified a number of adaptive systems that need to be in good working order to support resilience. There are parallels between many of these systems and the research exploring the relationship between play and wellbeing, most notably the importance of attachments (to caregivers, peers and communities); emotion regulation and other self-regulation systems including responses to acute stress or shock; motivation and cognitive capacities such as problem-solving. 'Children need water, food, shelter, safety, and medical care, but they also need attachment, security, family, opportunities to play and learn, and a meaningful place in society' (Masten, 2014, p. 295).

Children (as with all living organisms) actively seek out ways to feel better, sometimes in very mundane ways such as shifting position or drinking when thirsty. The biological term homeostasis describes an unconscious process that is neither neutral nor static. It is a process that 'ensures that life is regulated within a range that is not just compatible with survival but also conducive to flourishing, to a projection of life into the future' (Damasio, 2018, p. 25; see section 3.7). In addition, if wellbeing is understood as something that children do, as a process, this implies movement. As Lester (2020, p. 85) argues, moments of playing (also as a process) are:

'fairly mundane and everyday movements fashioned in-between materials and bodies to produce states that simply for the time of playing generate a more pleasurable state: a state of "being well" … the primary force and desire of life is movement – the ability to move towards things that support flourishing and to move away from those things that reduce or limit this capability.'

The importance of movement is considered in more depth in section 3.6.

3.2.1 Play and a relational capability approach

Such a perspective turns attention away from individual children and towards the conditions of children's lives (Coffey, 2020; Lester, 2020). Here we pick up on Lester's use of the term 'capability' and on the closing thoughts of chapter 2 (section 2.3.8) and reiterate the relational capability approach. Such an approach blends ideas from the works of philosopher-economist Amartya Sen and philosopher Martha Nussbaum on the capability approach together with ideas from contemporary relational and non-representational approaches to childhood studies.[56]

Capabilities are not personal skills and personality traits but rather the opportunities and resources (conditions) that are available and that children can make the most of to be and do well (Biggeri *et al.*, 2011; Camfield and Tafere, 2011; Domínguez-Serrano *et al.*, 2019; Kellock and Lawthom, 2011; Murris, 2019; Nussbaum, 2007;

[56] See chapter 2, section 2.2.4.

Robeyns, 2017; Schweiger, 2016). The approach recognises that children's capability to make the most of opportunities and resources for play is affected by individual, social and environmental factors (Owens *et al.*, 2021). This means that the conditions that support play will be different for different children.

Although the capability approach has also been criticised for focusing on individual choice and freedoms, we are suggesting a relational approach, in line with Murris (2019) and Owens *et al.* (2021). This is consistent with contemporary perspectives on childhood and can help inform both policy making and professional practice. 'Relational' here is a radical imagining that includes and is more than children's relationships with other humans (as described, for example, in Garner and Yogman, 2021). It extends to all bodies, things, forces and systems with which children's lives are entangled to the extent that 'child is not an entity bounded by her or his skin and in a particular position in space and time that precedes relations, but child e/merges as a result of these human and more-than-human space-time relations' (Murris, 2019, p. 65; see also Atkinson, 2013). From this perspective, capabilities, abilities, wellbeing and so on are not located *in* individual children's minds and bodies but emerge dynamically through and as encounters.

The approach we are proposing here suggests that, if conditions are right for children to play, children have the *capability* to do and be well, and that this is a matter of justice for children. As discussed in chapter 2,[57] Nussbaum (2007) argues that capability theory is a theory of justice. She identifies ten central human capabilities: Life, Bodily Health, Bodily Integrity, the Development and Expression of Senses, Imagination and Thought, Emotional Health, Practical Reason, Affiliation (both personal and political), Relationships with Other Species and the World of Nature, Play, and Control over One's Environment (both material and social).

As we show in this chapter, the capability to play affects all the other capabilities. For this reason, protecting and promoting children's capability to play, particularly for children already facing social and spatial injustices, is both in line with children's rights (Lott, 2020) and the social investment model of policy described in chapter 2 (section 2.3.2) (Nielsen, 2018). In other words, it makes sense in terms of both justice and economics. However, bringing rights and social investment to a capability approach raises the eternal tension of play's intrinsic and instrumental value: a capability approach sees people as ends in themselves rather than means to ends (Laruffa, 2018), and so the instrumentalisation of play for social and economic purposes would not be consonant with the principles of a capability approach. Nevertheless, if the focus is on paying attention to *creating the conditions* for play (the capability for children to play), rather than promoting or guiding specific forms of play for the social and economic benefits they are assumed to bring, it may be possible for both to co-exist in less of an oppositional manner. This is particularly so in the case of the Welsh Government's Well-being of Future Generations (Wales) Act 2015, which sees wellbeing as broader than merely economic.

The conditions for supporting play – children's capability to play – are considered in chapters 4 and 5. This chapter reviews the literature on the relationship between play and wellbeing and addresses the tensions between intrinsic and instrumental value throughout.

3.2.2 Play's contribution to wellbeing: an overview

Much of the research looks at how play brings benefits for children, enhancing their wellbeing. Yet the converse is also useful: how might playing itself be indicative of children's wellbeing? Panksepp (2015, p. 478) argues that playfulness is 'an exquisitely sensitive measure' of wellbeing. The Ahloy-Dallaire *et al.* (2018) review suggests this is a complex issue. Certainly, if children were ill or in pain, they tended to play less, or to engage in a smaller

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[57] See section 2.3.5.

range of play forms. Children with clinically diagnosed psychological conditions such as depression, anxiety or post-traumatic stress disorder interacted less with other children during play sessions and were more likely to show aggression or negative behaviours, and their play was more fragmented. In some studies, children did not play less overall, but were more likely to engage in solitary play. Children who have experienced trauma were likely to engage repetitively in play where they re-enacted the traumatic events, possibly using play as a coping mechanism. This is supported by research into play therapy (see section 3.8). Overall, Ahloy-Dallaire *et al*. (2018) conclude that children's wellbeing may well be reflected in their play, not necessarily through reducing play but rather through an increase in certain forms of playing such as solitary or re-enactment play.

Children themselves equate playing with wellbeing, as shown for example in Moore and Lynch's (2018) study of six- to eight-year-old children's own views on their happiness (as a proxy for wellbeing). The children in this study were also aware of the environmental conditions that facilitated or hindered their desire to play, together with the importance of social relations with other people and with animals, highlighting the relational and spatial nature of wellbeing.

From studies on animal play, Held and Špinka (2011) suggest four possible relationships between play and wellbeing:

• the presence of play indicates the absence of major threats (although this is not universal, as discussed above, see also Chatterjee, 2017, 2018);

• playing releases neurotransmitters associated with feelings of pleasure and reward, motivating animals to engage in further playing;

• play can bring immediate psychological and longer-term health and adaptive benefits, contributing to current and future wellbeing, including aiding development of the brain and the body, enhancing emotional resilience, adaptiveness and bodily flexibility;

• play is both socially and emotionally contagious, either eliciting play in others or merely eliciting the pleasure of playing through mirror neurons, and so spreads the potential of wellbeing to groups.

However, they also argue that play is a 'vexing' phenomenon, because of its variability and flexibility both within and across species of animals (including children), and that results from specific empirical studies cannot always be universalised and are sometimes contradictory.

Play is often presented as a paradox, with tensions between children's desire for both excitement and security (Andersen *et al*., 2022; Dodd and Lester, 2021; Gordon, 2015; McDonnell, 2019; Sandseter, 2009, 2010; Sutton-Smith, 2017). This is evident from early infant play with adults, where adult exaggerated vocalisations, smiling and other metacommunications and repeated rituals help set a safe frame for potentially alarming forms of play such as peek-a-boo and tickling (Gordon, 2015). The attunement between adult and infant required in such play brings changes to neural networks that are also evident in later forms of play, mainly those involved in pleasure, emotion regulation, social engagement and coping with unexpected and new situations (stress response systems). Playing also helps build attachments, first to primary caregivers and then to others, including peers (Bergen *et al*., 2016; Gordon, 2015). Gordon (2015) suggests that later forms of play that rely on affective attunement include social play, rough and tumble, games, jokes, rituals, celebrations and so on. Alongside this, infants' early exploratory play, which relies on a caregiver providing a secure base, extend into later forms that include adventurous and risky play, 'dizzy' play and games of chance and uncertainty (Gordon, 2015). 'Well-being emerges with the linking of differentiated networks dedicated to emotion, cognition and sensation' (*ibid*., p. 470). In addition, the pleasure and joy of playing involves various neurotrophins, suggesting it has anti-depressant effects (Panksepp, 2010, 2012, 2016; Panksepp *et al*., 2019). Woodyer *et al*. (2016) stress the vitality of play as its intrinsic value. However, on this last point, it should be acknowledged that play is not always fun or joyful for all players when things do not go as children would want or they are excluded or mistreated (Howard *et al*., 2017; Trammell, 2020, 2023).

The benefits for children's wellbeing from these forms of play arise out of relations both to other people (trusted adults and peers) and also to whatever else is to hand at that time: material objects, landscape features, atmospheres, and so on. From this perspective, wellbeing is 'assembled through the conditions of everyday life' (Coffey, 2020, p. 69). However, it is the complexity of such entanglements that makes specific and universal cause and effect claims difficult (Lester, 2020), a caution sounded by many of the authors reviewed here.

3.3 Approaches to studying children's play

Henricks (2015c) suggests that play scholarship considers the key questions, namely the *what, who, why, when, where* and *how* of play. This chapter considers the *what* and the *why* and critiques of these questions too; chapter 4 looks more at the *when, where* and *how*, although there are of course overlaps. *Who* is playing is introduced in 3.3.3 below and then woven throughout reviews of the literature in chapters 3, 4 and 5. This section reviews the literature on how play is currently defined (the *what*) and then the range of (sometimes contradictory) approaches to studying children's play.

3.3.1 What are we talking about?

'Play offers roomy territory inside. Play can be challenging or soothing, rough or gentle, physical or intellectual, mischievous or well mannered, orderly or disorderly, competitive or cooperative, planned or spontaneous, solitary or social, inventive or rule-bound, simple or complex, or strenuous or restful (and so on)' (Eberle, 2014, pp. 231-232).

'Researching play is challenging due to play's diversity, ambiguity, and complexity … Since many different actions, internal states, and even behavioural settings are subsumed under the term "play", problems of definition, categorization, and measurement of play exist. The challenge is further compounded by the fact that play occurs over time and may be continuous or intermittent, long duration, short duration, or even fleeting, and may occur in combination with non-play elements' (Johnson and Dong, 2019, p. 399).

'Something about the nature of play itself frustrates fixed meaning' (Sutton-Smith, 2017, p. 21).

Such statements on the impossibility of reaching a definition of play that all scholars can agree on are ubiquitous in the literature exploring the nature and value of play (for example, Burghardt, 2005, 2010; Burghardt and Pellis, 2019; Eberle, 2014, 2015; Gray, 2019; Henricks, 2015a; Smith and Roopnarine, 2019; Sutton-Smith, 2017). Difficulties arise for a range of reasons, some of which are explored further here. Reasons include a lack of clarity on what kind of phenomenon play is; the many different forms play takes, each of which may have different origins and functions; the paradoxes of play; and the narrow lenses of academic disciplines. And, as Hughes (2018, p. xiv) notes 'play continues to defy description … because like all complex processes, there is always another layer waiting to reveal itself'.

Some have questioned what kind of phenomenon play is. Henricks (2015a, p. 22) argues that 'anyone studying play must confront the question: what kind of occurrence, pattern, or thing is play?'. He suggests six lenses through which play can be studied, none of which is straightforward, and none of which is adequate on its own:

- **play as action**: this is play-as-behaviour, most common in empirical psychological and biological studies;

- **play as interaction**: this is about play as an engagement with the world, not in isolation from it, and is broadly seen in the social sciences play literature;

- **play as activity**: this refers to the broader temporal, spatial and social context for playing, and is a cultural designation, most readily applied to games, studied broadly by anthropologists, folklorists and other cultural scholars;

- **play as disposition**: looking beyond play as behaviour, this is more about the notion of playfulness, the motivation to play;

- **play as experience**: the continuation of the desire to play, and the idea of flow;

- **play as context**: when the conditions are right, physiologically, psychologically, emotionally, socially and if the cultural and physical environmental context is right, play will emerge.

From a philosophical perspective, Feezell (2010) suggests five conceptualisations, which can operate simultaneously, and some of which are similar to or overlap with Henricks': as behaviour or activity; as motive, attitude or state of mind; as a form or structure; as a meaningful experience; and as an ontologically distinct phenomenon. This last conceptualisation is slightly different. From this perspective, rather than the players playing the play, the play plays the players. In other words, play is a phenomenon that arises as something distinct from the individual and shared experiences of the players, raising a challenge to the oft-cited and individualistic characteristics of play being freely chosen and personally directed (see below).

Many scholars point out play's paradoxes, for example that between boredom and anxiety, order and disorder, equilibrium and disequilibrium, seriousness and nonseriousness, reality and pretence (Henricks, 2015a; McDonnell, 2019). Sutton-Smith (2017) has long seen the dialectics of play (or *dialudics*, as he terms it) as a fertile basis for its theorisation, in terms of the tensions between the primary (ancient and vital) and secondary (mediating, social) emotions, or between the reflexive and the reflective, the irrational and the rational; and the tensions between autonomy and heteronomy (individual choice or control and the demands, constraints and attractions of others, including social conventions).

Another tension Sutton-Smith (2017) points out is that between play's supposed autotelicity (that it is for its own sake, an end in itself) and play advocates' arguments that play serves some function other than play itself (see also Cohen, 2019; Lester, 2020; Russell, 2014). He does this through a discussion of 'good' and 'bad' play over the history of minority world play scholarship, suggesting that the introduction of the Puritan work ethic led to the censure of traditionally wild and frivolous festival rituals and carnivals, and that this had a strong influence on the classic Euro-American theories of play of the nineteenth century, which sought to show how play was worthy in some useful way. Such a tension between good and bad play is still evident: Wood (2012, p. 4) suggests that the status of play is

'contentious … in this post-modern, neoliberal, commercialised, globalised and computerised era. Ironically, as new play forms, spaces and opportunities are continuously emerging, play is also seen as being threatened and attacked: there is too much of the 'wrong' kinds of play, and not enough of the "right" kinds … However, children in particular are like Houdini: they escape and contest the definitions, boundaries, rules and policies that adults impose on play.'

The problem of defining play, as with other aspects of play scholarship, has been affected by the politics of knowledge production, in that it is influenced by what kind of phenomenon researchers and advocates want it to be. Some writers delimit different modes of playing in their definitions and research, for example, separating games, sports and play; or distinguishing (and acknowledging the interrelationships) between play, work, ritual and communitas (Henricks, 2015a, 2015b), or between play, exploration, stereotypic behaviour, work and rule-governed games (Smith, 2010); or using terms such as 'playful play' (Bateson and Martin, 2013), 'free play' (Gray, 2011; 2013b; Hewes, 2014; Hjelmér, 2020; Wood, 2014), 'guided play' (Hassinger-Das *et al*., 2017; Rautio and Winston, 2015; Weisberg *et al*., 2016; Zosh *et al*., 2018) or 'purposeful play' (Brodie, 2021; Cowan, 2020; Wood, 2014).

Generally, however, defining play has tended to be approached through listing its structural, functional or motivational characteristics (Bateson and Martin, 2013; Gray, 2013b; Henricks, 2015a, 2015c; Smith, 2010; Sutton-Smith, 2017), but there has yet to be a list that satisfies all scholars across all disciplines. Given the context for this review, a reasonable starting point for the discussion here is the definition used in relevant policy statements. Two are offered here, the first from the Welsh Government's statutory guidance on the Play Sufficiency Duty (originating in the Play Policy of 2002) and the second from the United Nations Committee on the Rights of the Child's General Comment no. 17 on Article 31 (see chapter 2).

'Play encompasses children's behaviour which is freely chosen, personally directed and intrinsically motivated. It is performed for no external goal or reward' (Welsh Government, 2014, p. 15).

'Children's play is any behaviour, activity or process initiated, controlled and structured by children themselves; it takes place whenever and wherever opportunities arise … play itself is non-compulsory, driven by intrinsic motivation and undertaken for its own sake, rather than as a means to an end. Play involves the exercise of autonomy, physical, mental or emotional activity, and has the potential to take infinite forms, either in groups or alone … The key characteristics of play are fun, uncertainty, challenge, flexibility and non-productivity' (UN Committee on the Rights of the Child, 2013, para 14c).

Several of these characteristics, or their broad equivalents can be found in much of the classic and contemporary literature on play and prevail in contemporary sources, a few examples being Huizinga (1955) and Caillois (1961) from a socio-cultural perspective; Garvey (1977) from the perspective of developmental psychology; Burghardt (2005, 2010) from ethology/evolutionary biology. The intrinsic motivation to engage in playing is clear in studies that show how animals play in the absence of rewards, challenging classic behaviourist operant conditioning theories (di Domenico and Ryan, 2017; Reinhold *et al*., 2019).

Additional characteristics might include being separate from everyday/serious life, involving 'as if' and make-believe worlds, being rule bound, comprising behaviours that are not fully functional in that context (not directly contributing to survival), taking place when other demands for survival are met, being accompanied by positive affect/pleasurable (Johnson and Dong, 2019). There are more: Sutton-Smith (1997, 2014, 2017) identified over 100 characteristics in the literature.

However, most of these broadly accepted characteristics of play have also been challenged for not always applying (for example, play is sometimes functional and productive, it is not always freely chosen, it is not always separate from everyday life, it can emerge in stressful situations), for being difficult to observe in empirical research, for not applying to all the myriad forms play can take, and for not always and only applying to play. In terms of play's assumed freedoms, for example, Levinovitz (2017, p. 269) argues that, actually, play is quite rule bound, and that 'emancipation from the rules of everyday life through play comes only by way of submission to an entirely

different set of rules', although everyday life is never entirely suspended and the big rules still apply. Brown (2014, p. 11) argues that given the breadth of play studies and claims made, any definition of play would have to apply to: 'children and adults; animals and humans; both process and product; positive and negative forms; structured and unstructured forms; immediate and future benefits; passivity and performance; fleeting moments and long-lasting periods'.

Beyond such structural, functional or motivational characteristics, Marks-Tarlow (2010) draws on complexity theory, nonlinear dynamics and neurobiology to suggest that play is recursive (repetitive but building on what has happened previously), entraining (body and brain systems attune and synchronise), self-organising (play organises itself, as a bottom-up emergent process), disequilibrious (play disturbs habitual ways of being, from a position of trust and security), fractal (complex patterns repeat at different scales) and sensitive to and dependent on initial conditions (see also Bergen *et al.*, 2016; Fromberg, 2015). Play's paradoxes provide conditions for novelty and creativity:

'Twists and turns in play narratives not infrequently trigger a 180-degree turn into self-contradiction. One minute a child, as fireman, urgently rushes to the scene of a blazing fire intent on saving a house from the flames. The next minute, our little hero morphs into a villain determined to toss the house into the fire instead. The coexistence of such opposites fires up children's passions within a safe environment, where nothing really burns and everything fuels the flames of creative inspiration' (Marks-Tarlow, 2010, p. 41).

Continuing the thread of non-linear approaches to theorising play, Eberle (2014) suggests focusing on play as a self-organising and emergent process rather than a thing with particular characteristics. It is the play process that is self-organising (rather than any one player being in control), emerging from simple rules and exchanges and sometimes developing more complex forms. He suggests six elements that describe the process of playing, but these elements are not 'things in themselves. Instead, we should read the elements as conveniences, as manners of speaking, and above all, as moving images' (Eberle, 2014, p. 222). Framing play broadly as developmental and evolutionary, and drawing on cognitive psychology and neuroscience, the six elements he identifies are: anticipation, surprise, pleasure, understanding, strength and poise. 'Play begins in anticipation', he says, 'in an imaginative, predictive, pleasurable tension' (Eberle, 2014, p. 222). This gives way to surprise – an openness to the new, the unpredictable, the unexpected. The pleasure of play brings its own reward and also 'enlarges the physical, intellectual, emotional, and social dividends that accrue' (*ibid.*, p. 224). This last shift from motivation into function, leads into understanding, seen here as 'enlarging both our talent for empathy and our capacity for insight' (*ibid.*). Strength, the fifth element, refers to strength of body and mind, and, coupled with understanding, this leads to forms of poise (social and physical). It is possible to see how these characteristics align with the opening discussion on play and wellbeing.

Playwork theory has considered the processes of play as an iterative cycle. The original model (Sturrock and Else, 1998/2005) drew heavily on depth psychology and also the anthropology of Bateson (1955) and sociology of Goffman (1975) to suggest five elements: metalude (the moment of imagination or reverie), play cue, play return, loop and flow, and annihilation, all playing out within a play frame (King and Newstead, 2020; King and Sturrock, 2020).

A closer look at the processes of play can raise challenges to the individualistic notion of play as freely chosen and personally directed. Detailed observations reveal it to be a process of constant, sophisticated negotiation and movement, using a wide range of metacommunication and objects to enact pre-play rituals and dynamic back and forth efforts to maintain playing (Beresin and Farley-Rambo, 2018; Potter and Cowan, 2020). A posthuman perspective on play decentres the individual player, raising challenges for ideas of personal choice and agency

within play. As was shown in chapter 2,[58] agency from this perspective is not the property of individual entities but arises from encounters in-between bodies (human and non-human), material and symbolic objects, desires, and so on (Änggård, 2016; Gallacher and Gallagher, 2008; Gallagher, 2019; Holloway *et al.*, 2019; Jones and Holmes, 2014; Lester, 2020; Raithelhuber, 2016; Taylor, 2011). Similarly for play: rather than residing in the minds and bodies of individual children, it too emerges and develops relationally, opportunistically and spontaneously from current conditions (Lester, 2020; Russell, 2015). From this perspective, play 'can only be fleetingly defined according to its specific time-space context (Jones and Holmes, 2014, p. 128; see also Harker, 2005).

There are some parallels (and differences) here with nonlinear dynamic systems theories (Bergen *et al.*, 2016; Fromberg, 2015; Marks-Tarlow, 2010) that show how play organises itself (rather than being freely chosen and personally directed by each individual player).

'Play has the ability to go in any direction with starts and stops, twists and turns, and forward and backward movements … Often there are abrupt changes in play – alternating seriousness and whimsy, reality and pretence … there is always in play the potential for more change' (Johnson and Dong, 2019, p. 401).

A key point to make here regards how children themselves define play.[59] Most empirical research into generating or validating definitions of play is carried out by adults, with some exceptions (see, for example, Barnett, 2013; Duncan, 2015; Glenn *et al.*, 2012; Howard *et al.*, 2006). These examples provide a range of methods to elicit children's views including sorting photographs and arts-based methods. One study used arts-based methods to generate an initial list that was refined through a detailed iterative process eventually generating a scale to measure children's perceptions of play (Barnett, 2013). Children's perceptions were often much looser than adults; almost anything could be seen as an opportunity to play, but key characteristics were that it should be fun and not boring, with friends, largely voluntary, with freedom of movement and choice (Barnett, 2013; Glenn *et al.*, 2012; Goodhall and Atkinson, 2019). Although teenagers may prefer to avoid the term 'play' due to perceived infantilised connotations, their accounts of hanging out are characterised by similar behavioural qualities as the play of younger children (Children's Commissioner for Wales, 2018; Cowan, 2020).

Importantly, children often have different views from adults on what constitutes playing (Theobald *et al.*, 2015), with children tending to focus on the intrinsic value of playing, that is, the pleasure and enjoyment which they gain from playing, in contrast to the more instrumental lens through which many adults often view or value children's play (Rautio, 2014; Woodyer *et al.*, 2016). Cowan (2020, p. 11) suggests children's conceptualisations of play may be more closely aligned with what adults more often refer to as 'free play': 'activities where freedom and agency is high, and adult involvement is minimal'. As Cowan (2020) goes on to point out, such qualities afford possibilities for forms of playing to emerge which adults may deem to be transgressive or risky, as children seek out novel experiences and challenges within a playful context that offers them some sense of freedom and control.

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[58] See section 2.2.4.

[59] Although see section 3.3.5 on research with children.

Some also question what defining play enacts. A focus on agreeing what play is as a category requires fixing identifiable boundaries, with a clear separation between play and not-play, even though such a clear separation is problematic (Lester, 2020; Russell, 2015). Massumi (2014, p. 70) notes the power of such binary distinctions: 'No mixing allowed: play or fight, but for sanity's sake don't contrive to do both at once'. Such a boundary-making practice excludes other ways of thinking about play that are not included within the boundary, and 'the more precise a definition, the more exclusive it is likely to be' (Russell *et al.*, 2017a, p. 242). In the process, play becomes a thing that stands outside of the messiness and rhythms of diverse children's everyday lives (Lester, 2013a). Juster and Leichter-Saxby (2014) draw on postcolonial theory to argue that the desire to understand works in tandem with the desire and power to control, oppress and objectify. As such, adults' research and/or practice relationships with children at play should respect manifestations of playing that defy observation or understanding.

Furthermore, Cook (2019) suggests that claimed certainties about what play is and about its benefits, often asserted as 'a panacea to the substantive problematic of childhood' (p. 125), enact a 'flight from ambiguity' (p. 124) thereby situating both play and childhood beyond further critical examination. Such certainties are embedded in the romantic ideal that play represents the original natural state of childhood that has been corrupted through adult and commercial incursions into children's freedoms. This creates what Cook terms a 'ludic episteme' (p. 125) that defines and delimits the conditions of possibility of what can be known about both play and childhood.

'The strong tendency … has been for writers to imagine one kind of play as all play – or, as all "good" play – and thus to imagine one kind of childhood. In selectively attending to those aspects which serve to bring into relief the kind of child and childhoods favored, many fabricate an ideology of childhood in the form of an ideology of the playful, thus creative, child. As in all ideological acts, the playful child suppresses alternative constructions and smooths over internal contradictions' (Cook, 2019, p. 129).

Closely linked to this is the pervasive and unproblematic connection between play, childhood, innocence and happiness. Happiness is co-implicated with play and a 'good' childhood in ways that become embedded in policy and everyday imaginaries, thereby creating and governing childhoods that have both the entitlement and the duty to be happy (Saltmarsh and Lee, 2021). Such unproblematic 'goods' of play obscure forms of play that, for example, reproduce, perform and perpetuate power inequalities (Bryan, 2019, 2020, 2021; Göncü and Vadeboncoeur, 2015; Grieshaber and McArdle, 2010; Kinard *et al.*, 2021; McDonnell, 2019; Trammell, 2020), are addictive (Sicart, 2014) or harmful in other ways (Sutton-Smith, 2017). Play's ambiguity for the players themselves means that its impact on social relations can be both positively reinforcing and coercively manipulative, including making clear who is dominant in the group, as Pellis and Pellis' (2009) work on rough and tumble play shows.

Trammell (2020) argues that definitions and theories of play that stem largely from White European traditions emphasise the pleasures of play in ways that erase experiences of the toxic, harmful and tortuous aspects of play for Black, Indigenous and People of Colour. The unproblematic acceptance of play as voluntary, together with ideas of negotiation and consent, largely obscures play experiences where there is no consent and that can be abusive (see also McDonnell, 2022; Rosen, 2017). Play may be voluntary for the player but not always for the played. Sutton-Smith's (2017) discussion on hazing (initiation rituals) may be play for the hazers but not for the hazees, although in this example, such practices are a preliminary to acceptance into a society rather than continually reproduced exclusion from it. Playful teasing may perhaps be more affiliative than exclusionary, but can be problematic for adults who read it literally (Göncü and Vadeboncoeur, 2015; Sutton-Smith, 2017).

Sutton-Smith (2017) sees the good play / bad play dualism as rooted in cultural contexts that have a legacy in dominant modern theories. For example, the forms of play that mock convention or seek to disrupt the order of things, albeit temporarily, have often been passed over for more orderly forms whose social or other function is more clearly evident; most play advocates, he contends, will see some forms of play as more valuable than others and so seek to promote these forms.[60] Contemporary examples of promoted play forms include:

- physical activity play (Gray *et al.*, 2015; Mills and Burnett, 2017; Ridgers *et al.*, 2010; Talarowski *et al.*, 2019; for a critique, see Alexander *et al.*, 2014, 2019);

- some (but not all) forms of 'risky play' (Ball and Ball-King, 2021; Ball *et al.*, 2012; Ball *et al.*, 2019; Brussoni *et al.*, 2012; Gill, 2007, 2018a; Skenarzy, 2009; for a critique, see Lester and Russell, 2014b);

- 'nature play' (Brussoni *et al.*, 2017; Chawla, 2015; Moss, 2012; Mygind *et al.*, 2021; Ward *et al.*, 2019; for critiques, see Dickinson, 2013; Hahn, 2018; Kraftl *et al.*, 2018; Lester, 2016b);

- some (but not all) forms of pretend and/or creative play and playfulness (Bateson and Martin, 2013; Russ, 2016, 2020; Singer and Singer, 2015; Weisberg, 2015; for a critique, see Lillard *et al.*, 2013; Smith, 2010).

Any definition of play will always be situated, that is, it will be set within its geographical, historical, cultural and disciplinary context (Russell and Ryall, 2015). After a lifetime of studying play in many contexts, Sutton-Smith (2017, p. 109-110) notes:

'My guess is that the overemphasis on the voluntary and nonfunctional in modern play theory stems from the values of our individualistic, consumer culture. The modern conception of children primarily considers their autonomous free play largely a result of individualism, which encourages us to believe that play is nonstressful and involves personal, consumer-like choices … Given the conflict in play between the productive and the nonproductive, the innocent and the worldly, the social and the individual, the heteronomous and the autonomous, clearly it requires a much larger narrative definition than most theorists are willing to attribute to it.'

Nevertheless, for many minority world scholars, a definition, however imperfect, is 'preliminary' to other aspects of play research (Henricks, 2015c, p. 381), particularly in positivist, empirical research (Burghardt, 2010; Neale *et al.*, 2018). The dialogue that ensues from attempts to identify, refine, critique and disturb such definitions is in itself a valid aspect of play scholarship (Eberle, 2015), particularly if done playfully (Russell and Ryall, 2015).

In summarising several perspectives, Eberle (2015, p. 490) says 'Thus the sociologist, psychologist, biologist and psychotherapist reach a kind of consensus, all feeling in a kindly way toward play, and finding in play the exercise of freedom, the experience of pleasure, and the opportunity for the shoring up of the self and its relations to others'. Drawing on this, and his six elements of the process of play (anticipation, surprise, pleasure, understanding, strength and poise), he offers this description of play that blends the what and the why:

'Play is an ancient, voluntary, "emergent" process driven by pleasure that yet strengthens our muscles, instructs our social skills, tempers and deepens our positive emotions, and enables a state of balance that leaves us poised to play some more' (Eberle, 2015, p. 500).

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[60] See section 3.3.2 for taboo forms of play.

Nevertheless, whilst clear boundaries are necessary for some forms of research, this is not always the case for others, as the following sections show. Grimes (2021, p. 12) acknowledges that play is 'sometimes dark, sometimes inane, and sometimes outright destructive', and embraces the idea that children's play can be 'both ambiguous and inherently worthwhile' (*ibid*.). Given this, our review seeks to work with the ambiguity of play.

3.3.2 Play forms and types

One of the problems of defining play springs from the many different forms it can take. As with defining play itself, there is no universal acceptance of a typology of types of play (Smith, 2010), and many different typologies have been offered (Marsh *et al*., 2016), not all of which are reviewed here. Some scholars categorise forms of play in terms of how they change over the course of children's development. For example, Hall's (1904) classic theory of play included the notion of 'recapitulation', the idea that children re-enact stages of human evolution in their play as they develop, from object manipulation, then pretend play of activities necessary for survival, and then games of skill (Bergen, 2019). The theory has been heavily critiqued for its lack of empirical evidence, its alignment with racist assumptions of the evolutionary superiority of white people that were prevalent at the time and its enduring influence in developmental psychology (Fallace, 2015; Gagen, 2007; Garrison, 2008; Knight, 2019; Koops, 2015; Varga, 2020). This enduring influence is evident in the inclusion of recapitulative play in playwork theorist Bob Hughes' (2006, 2012) taxonomy of play types.

A second example of developmentally staged forms of play is from Parten (1932), who suggested progressive stages of unoccupied, solitary, onlooker, parallel, associative and co-operative play in early childhood (Brodie, 2021). A third example is Piaget's stages of sensorimotor play, practice games, symbolic games and games with rules (de Lisi, 2015).

Ethologists, who study animal play, traditionally divide play into three broad categories: locomotor/rotational, object/predatory and social (including play fighting and courtship/sexual play) (Burghardt and Pellis, 2019). Whitebread *et al*. (2012), in a review of the importance of children's play, suggests five types: physical play, play with objects, symbolic play, pretence/sociodramatic play and games with rules. Smith (2010) suggests a non-exhaustive list of examples: social contingency play (where play is contingent upon the responses of others), sensorimotor play, object play, language play, physical activity play (separated into exercise play and rough and tumble play) and fantasy or pretend play.

Playwork scholar Bob Hughes (2006, 2012) suggests 16 play types, each with a different genesis and function. These types of play are not subsets of a homogeneous whole, they are discrete, even if observed in combination. They are: symbolic, rough and tumble, socio-dramatic, social, creative, communication, exploratory, fantasy, imaginative, locomotor, mastery, object, role, deep, dramatic and recapitulative play (Hughes, 2012, p. 97). Marsh *et al*. (2016) adapted this framework in their study of play and creativity in young children's use of apps on digital tablets and were able to show how each play type could apply to digital play, even the ones that may at first seem difficult, such as mastery play and locomotor play, although in this particular study they did not observe rough and tumble play or recapitulative play. However, they also found one aspect of how children played with the apps that could not be accounted for in Hughes' taxonomy and suggested adding the category of 'transgressive play', defined as 'play in which children contest, resist and/or transgress expected norms, rules and perceived restrictions in both digital and non-digital contexts' (Marsh *et al*., 2016, p. 250).

Many of these classifications have emerged from evolutionary, biological and psychological studies. Others have identified many more types of play. For example, in his classic text *The Ambiguity of Play*, Sutton-Smith (1997) identified more than 308 (Meckley, 2019). From the perspective of folklore, Willett *et al.*'s (2013) classification of primary school children's play and games in the playground, developed both from the foundational work of the Opies (Opie, 1993; Opie and Opie, 1959, 1969) and from more recent studies (Bishop and Curtis, 2001), brings a very different perspective, distinguishing by verbal, musical, physical and imaginative content. Such an approach foregrounds much of the nonsense and humour of children's play, for example jokes, parodies, rude rhymes and rude noises made with the body.

Fogh and Johansen (2013) suggest that categorising play by its content is problematic because any given situation is context dependent. They propose a psychologically based play grid or matrix that categorises players according to extroversion (outer reality) or introversion (inner reality) along one axis and agency (autonomy) and communion (interdependence) along the other. Acknowledging that most people will move dynamically along these axes in different situations and moods, they maintain that as a general metaphor the grid is useful when considering players' entry into play, in other words the 'quadrants can be perceived – metaphorically – as *gateways* to play' (Fogh and Johansen, 2013, p. 357). Each quadrant represents certain types of players: Improviser (introversion/agency), Explorer (extroversion/agency), Director (introversion/communion) and Assembler (extroversion/communion). They also suggest that such player types can inform the design of toys and games:

- for introverts, products should offer suggestive effects, for extroverts, they should provide controllable functions;

- for autonomous players, the focus is on exploring possibilities;

- for interdependent players, products should offer opportunities to apply structures.

Some have argued that atomising play into discrete categories, while useful in some forms of research and practice, has the effect of fixing and decontextualising children's behaviours and experiences, in ways that make it difficult to think differently and so to entertain new ways of sensing and thinking about play (for example, Lester, 2013a, 2020). Hewes (2014) argues that classification systems 'fall apart' when children's spontaneous play is observed, and that play stages and play types 'coexist simultaneously and fluidly, forming, reforming, appearing and disappearing spontaneously, as any free play episode unfolds' (p. 285). Such questionings are helpful in that they can warn against over-simplification of forms of representations of children's play and the potential to confuse the map with the territory, or confusing representations of reality with reality itself (Stenros, 2015). As has been said, some forms of play appear to be more highly valued than others and are more promoted in minority world research, policy and practice. These include pretend play (Smith, 2010), and particularly minority world assumptions about what constitutes good quality pretend play (Göncü and Vadenboncoeur, 2015), together with outdoor play, particularly physically active, risk-taking and in natural surroundings (Alexander *et al.*, 2014, 2019; Lester, 2016b; Russell *et al.*, 2021). Outdoor play is often presented as the opposite of digital forms of play, with the latter being blamed for a perceived decline in the former. However, research increasingly shows that children do not see such a separation and readily merge their digital and non-digital play narratives (Marsh *et al.*, 2016; Potter and Cowan, 2020; Willett, 2014).

Taboo and dark play forms

There has been a limited body of research into forms of play that adults find concerning or offensive. As Grimes (2015) notes, there are many forms of play that do not meet the hegemonic ideal constructed by adults, including 'play that transgresses adult tastes, draws on dark themes, engages in violence and sensory pleasure, and explores taboo subjects' (pp. 129-130). Certainly, there are forms and modes of playing that are cruel, addictive and/or harmful, as discussed in the previous section. Perhaps part of the contradiction that adults demonstrate resides in the expectation that play is inherently good, whereas such research suggests that there is an amorality to play. Beyond cruel play, the research into taboo and dark tropes in play is contradictory. Some interpret play narratives

literally and see playing with violence or taboo subjects as cause for concern, either because there is a perceived likelihood of a continuation of or desensitisation to such behaviours or interests outside of play, or because the presence of such themes may be read as cathartic and therefore signify pathological problems in children's lives or psyches. Others find no such connections, or offer alternative theorisations such as broader perspectives from children's own play cultures (Rosen, 2015a, 2015b). Two examples are given here that illustrate the tensions and contradictions for adults making sense of children's taboo or dark forms of play.

The first is Rosen's (2015a) ethnographic study in an early years setting where practitioners officially supported forms of superhero or war play or playing with themes such as death, but in practice sought to control narratives by engaging with them and directing them away from worrisome manifestations of death or violence. In her close examination of the ways that such play tropes develop, Rosen (2015a) suggests that spontaneous and causeless dying within a group play episode may be enacted with the expectation that it will elicit a caring response from players that try and bring the dead player back to life, or because the 'dead' players wish to exert more control over the narrative.

The second example is a discussion of digital games such as *Pregnant Rapunzel Emergency*, where primary school aged children tend to the wounds of pregnant well-known female characters that appear to have been violently inflicted (Sinker *et al.*, 2017). The adult authors voiced multiple concerns about the game: 'in playing them, sex as gender is compromised and limited; princess beauty myths are replicated; pregnancy is medicalised; wounds are erased with one rub of the mouse or pad; and the reality of its producers, advertisers and bankers is kept hidden' (Sinker *et al.*, 2017, p. 176). At the same time, the authors acknowledged that the child playing the game was uninterested in how the wounds were inflicted and just wanted to remove the blood or bruises and witness the birth (which did not actually materialise).

3.3.3 Different players

Much of the literature makes generalisations both about children's experiences of playing (for example, that it is always voluntary or accompanied by positive affect) and about its benefits for children's wellbeing. 'Play' and 'children' easily become homogenised, normative concepts that erase the experiences and functions of play for children who do not fit the ideal child mould (Buchanan and Johnson, 2009; Cook, 2016; Doak, 2020; Göncü and Vadenboncoeur, 2015; Goodley and Runswick-Cole, 2010; Horton, 2017; Mayeza, 2018a, 2018b; Smith, 2017). As Göncü and Vadenboncoeur (2015, p. 295) note, 'much of the research on play tends to assume it to be an unconstrained and universal activity that exists outside of cultural understandings and contextual limitations on children and childhood'. This section considers a few selected examples of various ways in which intersecting notions of difference are addressed in the literature on the importance of play in children's lives, raising challenges for generalised statements about the relationship between play and wellbeing. Chapter 4 considers these differences in terms of children's play patterns.

Talking about specific groups of children also brings with it the problem of essentialising single aspects of difference.[61] Just as there is no universal child, so there is no universal dis/abled child, or six-year-old, or Black child. Intersectionality aims to offer not only an analytical framework that acknowledges how privilege, oppression and power intersect across categories of difference, but also a basis for counterhegemonic activism (Cho *et al.*, 2013; Konstantoni and Emejulu, 2017). Nonetheless, it is also useful to consider the issues faced by each category of age, dis/ability, gender, race and the ubiquitous 'et cetera' (Cho *et al.*, 2013, p. 787) as a consequence of belonging to that particular category, at the same time as acknowledging how stratifications intersect. The paragraphs that follow consider categories of age, disability and neurodiversity, gender and heteronormativity, and race.

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[61] See chapter 2, section 2.2.5 for a discussion on intersectionality.

Age

Perhaps the most frequently acknowledged and studied differences relate to age. The distribution of classic and contemporary play research across ages is uneven, with considerably more research on the benefits of play focused on the early years, being heavily linked to education and development (Göncü and Vadeboncoeur, 2015). Much research into children's play patterns tends to focus on middle childhood (see chapter 4). Finally, there is less research into play after the age of about 11 years (Cohen, 2019). Normative statements are often made about how play changes as children develop (for example Bergen, 2015; Lindsey and Colwell, 2013), or about what constitutes age-appropriate forms of play (for example, Dodd and Lester, 2021; Family, Kids and Youth, 2021; Millei and Imre, 2021; Murris, 2017; UN Committee on the Rights of the Child, 1989, 2013). Whilst the idea of age-appropriateness is inevitably useful for understanding the play of many children, it plays out differently for those who do not fit into generalisations, for example, disabled and/or neurodiverse children (Goodley *et al*., 2015; O'Connor *et al*., 2021).

Children can be judged as having different levels of 'ludic competence' (Sutton-Smith, 2017, p. 241). Zhao and Gibson (2022) argue that research should not only consider the quantity of time and opportunities children have to play but also the quality of their play performances, since play competences have an impact on children's ability to make friends and therefore on later mental health. Their analysis of longitudinal data concludes that, controlling for external factors such as socio-economic status and maternal distress, confounding factors such as family play patterns, and internal factors such as temperament, children's ability to engage well in peer play at the age of three years predicted better mental health at age seven across the four measures of the Strengths and Difficulties Questionnaire (hyperactivity, conduct, emotional and peer problems). However, Göncü and Vadenboncoeur (2015) point out that the generalisations made from research that does not take into account that play is 'an economically structured, contextually driven, and culturally value-laden activity' (p. 296) have the effect of 'identifying children from low-income and non-Western communities as deficient in comparison with their middle-income and Western peers and articulating recommendations for incorporating play as an intervention to address what children and/or their material conditions lack' (p. 295).

Several research studies use specific tests to assess players, for example, Barnett's (2018) Children's Playfulness Scale, Bundy's (2017) Test of Playfulness, Chazan's (2012) Children's Developmental Play Instrument and several others.[62] These assessments use either observation or teacher/caregiver ratings and cover concepts such as physical, social and cognitive spontaneity together with manifest joy and a sense of humour (Barnett, 2018); intrinsic motivation, internal control, freedom from constraints of reality and framing (Bundy *et al*., 2007); or dynamic styles of play observed in play episodes (not assessed as stable traits), which can be adaptive (playful, flexible, responsive), impulsive (sudden changes, movement/action rather than reflective responses), conflicted/ inhibited (continually playing out issues that trouble or fascinate, inward focused) and disorganised (extreme anxiety, internalisation) (Chazan, 2012).

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[62] All these tests have been in use since the 1980s or 1990s; references given here show recent usage.

Disability and neurodiversity

'Play is often used to define disability in a child, particularly when a child is labelled as having autism' (Conn, 2015, p. 1192).

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For atypical, disabled and neurodivergent children, such tests (and by extension, play itself) offer 'a mechanism for assessment, diagnosis and therapeutic intervention' (Goodley and Runswick-Cole, 2010, p. 500) that aim to improve play skills. Disabled children are more likely to be seen as lacking the skills needed for successfully engaging in play and so are also more likely to have more interventions aiming to address such deficits (Barron *et al.*, 2017; Goodley and Runswick-Cole, 2010). From this perspective, difference is seen as deficit, and the many different ways that neurodivergent children play seen as problems to be fixed (Murphy, 2021). Autistic children's play styles are often described, particularly in health and education contexts, as 'lower, atypical, restricted, repetitive, limited, and deficient' (Fahy *et al.*, 2021, p. 115). One example is the widely reported pretence deficit in autistic children's play (Ray-Kaeser *et al.*, 2017)[63] although Chaudry and Dissanayake's (2015) review of the literature found this deficit to be contested for some autistic children and/or under some conditions (for example, elicited or instructed pretence).

From the perspective of the autistic self-advocacy and neurodiversity movement, Leadbitter *et al.* (2021) argue that any intervention should strike a balance between supporting autistic children to cope well with and enjoy their lives and attempting to normalise or change them, recognising that 'individuals can want things to be different and still want to be themselves' (p. 2), acknowledging that there are no simple solutions to this dilemma. Some of the diagnostic symptoms of autism, for example repetitive or stimming behaviours, can be reframed as autistic children's coping and self-regulation strategies; Leadbitter *et al*. (2021) argue that aiming to reduce these may be harmful, and that interventions aiming to help autistic children to cope should address strengths, pleasure and wellbeing. This is possible in some play-based interventions, but highlights the complexities and relational aspects of normative assumptions, developmentalism and the everyday lives of diverse children.[64]

The research paradigm that makes norm-based assessments of both the quality and value of play in terms of children's learning and development has been termed a psychoeducational research paradigm of the play of disabled children (Buchanan and Johnson, 2009). Alternative paradigms have the potential to 'emancipate play' (Goodley and Runswick-Cole, 2010). One example is childhood studies, an approach that recognises the intrinsic value of play for its contribution to the quality of life in the present and pays more attention to issues of marginalisation and equity (Buchanan and Johnson, 2009; Goodley and Runswick-Cole, 2010). Such a perspective also acknowledges the wisdom of parents and caregivers in knowing and understanding how their children play and the pleasure they can gain from it. Caregivers often approach everyday activities and tasks, including care routines, playfully, as this makes the process more pleasurable for all. In addition, play can often give disabled children a rare sense of control over how play develops. Observing naturally occurring play in the home through a childhood studies lens can also challenge some of the play deficits more limited analyses identify (Buchanan and Johnson, 2009).

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[63] The term 'autistic children' is used here rather than 'children with autism spectrum disorder' in line with the 'identity-first' preference of many in the autistic self-advocacy and the neurodiversity movement (Leadbitter *et al.*, 2021).

[64] See section 3.8.5.

In addition, an awareness of disability as a social oppression has had much influence on the desire to be more inclusive in play provision and to consider social, physical and attitudinal barriers to disabled children's participation (Goodley and Runswick-Cole, 2010), although recent research suggests there is some way to go in this endeavour (Brown *et al.*, 2021; Lynch *et al.*, 2018; Moore *et al.*, 2022).[65]

More broadly, Smith's (2017) study of playwork with children with profound and multiple learning disabilities (PMLD) highlights how the accepted definition of play that underpins playwork practice poses problems for those who support the play of such children. In particular, notions of play as freely chosen and personally directed need careful thought for children whose expressions of volition, choice and other forms of communication are very different. Watson (2015) suggests that the concept of playfulness offers possibilities for looking beyond the assumption that children with PMLD are passive. This requires building relationships and learning how to interpret playfulness in what are often very subtle and nuanced cues beyond language (Smith, 2017; Watson, 2015). Playfulness can be 'as fragile as a bubble and can be expressed by as little as a movement of eyebrows but is nevertheless fundamental' (Watson *et al.*, 2018, p. 179).

Gender and heteronormativity

There is a considerable body of literature that looks at the relationship between play, gender and gender development, including how children reproduce and/or resist gender stereotypes in their play and the causes and consequences of this. This is an area of study (and practice) where stubborn binaries persist, both between nature and culture and between male and female. In addition, dominant material-discursive practices regarding children's gendered play are entangled with cisheteronormativity[66] (Brito *et al.*, 2021): the dualisms of assigned sex at birth (male/female), gender (male/female) and sexuality (straight/gay) cannot be seen in isolation from each other and combine to form a powerful and pervasive system of belief that is so embedded that it seems natural. This presents challenges because it requires adults not only to think of children as gendered but also sexual (Blaise and Taylor, 2012; Paechter, 2017; Tembo, 2021a).

Several studies embedded in such binaries show how children's play is gendered from an early age, starting with preferences for gender-typical toys in the first year of life, with different patterns of development and change over time between boys and girls (Boe and Woods, 2017; Todd *et al.*, 2018).[67] Such patterns have been closely linked with more general gender conforming behaviour and are consistent in families with heterosexual, lesbian or gay parents (Farr *et al.*, 2018). Some argue, however, that there is more variation within rather than between genders (Wohlwend, 2012).

Preferences for same gender peers as play partners develop slightly later and could initially partly arise because of similarities in preference for gender-typed toys and play styles, or that girls wish to avoid the stereotypical highly physical and competitive play of boys (Kung, 2021; LaFreniere, 2011). Gender rigidity is more prevalent in younger children, often reinforced by peers, with more flexibility tending to emerge in later childhood (Halim, 2016). Interest in the causes, correlates and consequences of such segregation focuses on the potential limits that early narrowing of play resources, play forms and play mates may have on physical, social, emotional, cognitive and gender development, perpetuating gender inequalities throughout life (Bennet *et al.*, 2020; Dinella and Weisgram, 2018; Kollmayer *et al.*, 2018; Kung, 2021; Spinner *et al.*, 2018). For example, Kung (2021) found a strong correlation between children's gendered toy preferences at three and a half years of age and their occupational interests ten years later. These differences were not based on children's gender but on their toy preferences, and

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[65] See chapter 5, section 5.7.2.

[66] A powerful macro-structural process that both assumes and requires alignment between anatomy at birth, gender and a heterosexual orientation.

[67] Children's toys and gender issues are also considered in terms of children's play patterns in chapter 4, section 4.4.3.

included masculine and feminine boys, masculine and feminine girls and a control group. Those who had played with typically masculine toys at three and a half years old showed more interest in typically masculine occupations at age thirteen and a half, irrespective of their gender and also accounting for other variables such as socio-demographic background, parental occupations and academic performance. Using the same early years data, another study also found that both boys and girls with masculine toy preferences at three and a half years of age displayed more physical aggression at age thirteen and a half (Kung *et al*., 2018).

Although there is some acknowledgement that gender-based differences in children's play are 'relative rather than absolute' (LaFreniere, 2011, p. 469), much of the literature looks for and finds large and stable generalised binary gender differences. Most girls prefer to play in symbolic and imaginary ways with dolls and household toys, whereas most boys prefer construction toys, cars or superhero play (Boe and Woods, 2017; Goldsmith, 2021; Josephidou and Bolshaw, 2020; Kilvington and Wood, 2016; Kung, 2021; Prioletta, 2020). Most girls prefer social and emotional aspects of playing, either in dyads or smaller groups, whereas most boys prefer more physical and competitive forms of play in larger groups (Bosacki *et al*., 2008; Kilvington and Wood, 2016; Kung, 2021; LaFreniere, 2011). In terms of efforts to dominate peer friendship groups, boys tend to use direct aggression and competition whereas girls more often employ indirect aggressions in the form of, for example, teasing, excluding, bullying and gossiping (LaFreniere, 2011; Madrid, 2013). It should be noted that much of the research into gendered forms of play is carried out in the institutions of childhood (early years settings or school playgrounds); play patterns may vary in other contexts depending on the availability of play mates and resources (Kilvington and Wood, 2016; Meire, 2007).

These issues are not particularly new in the literature on children's play. However, more recent studies raise challenges to two key and deeply interwoven binaries evident in research, policy and practice. The first is the binary split between natural/innate and cultural/learned explanations for such gendered performances in children (Blaise and Taylor, 2012; Josephidou and Bolshaw, 2020). Attempts to counter gender stereotypes in books, toys, child-rearing and professional practices, or to introduce gender-neutral approaches, have not been particularly successful, and stereotypes stubbornly persist (Blaise and Taylor, 2012; Martin, 2005). This persistence may explain the prevalence of views that such gendered play performances and preferences are therefore inevitable, natural or innate (Osgood, 2014; Prioletta, 2020).

Meynell and Lopez (2018) show how the nature/culture binary is perpetuated both by feminists (including post-structural feminists), whose arguments still privilege cultural and social aspects, and by sex difference researchers (mostly ethologists, biologists and neuroscientists), who seek biological explanations for gender differences. Biological explanations for play differences tend to focus on exposure to prenatal hormones that shapes both the structure of the brain and social behaviours, including play (LaFreniere, 2011; Reilly *et al*., 2019). For example, girls exposed prenatally to androgens[68] show more interest in playing with boys in typical male activities such as rough and tumble play (Jarvis, 2010; LaFreniere, 2011; Spencer *et al*., 2021; Todd *et al*., 2018). However, such biological processes do not occur in isolation and manifest differently in different social ecologies, such that 'biological and cultural factors collaborate to produce adaptive behavior within any particular ecology' (LaFreniere, 2011, p. 478). The second binary is that of gender itself, the unavoidable requirement to be either a girl or a boy, a binary that is deeply embedded in language, material-discursive practices and research (Bragg *et al*., 2018; Callahan and Nicholas, 2019; Dinella and Weisgram, 2018; Keenan and Lil Miss Hot Mess, 2020; Osgood, 2014; Pawlowski *et al*., 2015; Prioletta, 2020; Tembo, 2021a). Children's social and cultural worlds are constructed in such a way that gender binary choices are frequently unavoidable, from school uniforms and toilets to sports cultures and friendships (Bragg *et al*., 2018).

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[68] Androgens are male sex hormones, including testosterone, present in both men and women to varying degrees. Prenatal androgen exposure can therefore be linked to existing levels in mothers or can be as a result of an endocrine disorder called congenital adrenal hyperplasia (Spencer *et al*., 2021; Todd *et al*., 2018).

The nature/culture and male/female binaries converge in the 'rather confused, highly politicized terrain around conceptions of sex and gender' (Meynell and Lopez, 2021, p. 4289). This is a distinction that was at the heart of the theoretical framework of the second wave of feminism.[69] Framing gender inequality not as a natural consequence of biological sex but as socially constructed through the concept of gender was a powerful, radical and compelling idea that offered the hope of change. However, the distinction has long been critiqued not only for its nature (sex)/culture (gender) dualism but also for its erasure of women whose experiences of inequality were not evident in the forms of oppression outlined by 'straight, white, Anglo, middle class feminists' (Meynell and Lopez, 2018, p. 4290). Additionally, the gender binarism inherent in the gender/sex distinction was also heavily critiqued by post-structural feminists and queer theorists for (ironically and counterproductively) essentialising two fixed genders and for failing to address the heterosexism and heteronormativity implicit in binary discussions of gender roles (Blaise and Taylor, 2012; Callahan and Nicholas, 2019; Martin, 2005; Meynell and Lopez, 2018). Blaise and Taylor (2012, p. 91) note, 'Dominant gender discourses and the dominant discourse of heterosexuality are inseparable'. Often, children's highly gendered play can be seen as a performance of both gendered and heterosexual norms together with their inherent power relations.

Research that brings a 'new gaze' (Brito *et al.*, 2021) beyond gender binarism foregrounds behaviours both in animals (Meynell and Lopez, 2021; J. Russell *et al.*, 2021) and in children's play that are gender non-normative, further blurring oppositional dualisms of 'nature' and 'culture'. Rather than smoothing over children's non-conforming play performances through the research processes of theming, generalising and universalising, these studies focus on the ways in which children enact, reproduce and resist gender stereotypical and heteronormative roles in their play (Blaise and Taylor, 2012; Renold and Mellor, 2013). Researchers often use post-structural feminism, queer theory and posthuman approaches to explore how children *perform* gender, moving beyond ideas of gender development and focusing on the micro-detail of gender performativity as it emerges through the assemblages of discourses, objects, structures, sounds, movements and relations of children's lives (Osgood, 2014; Renold and Mellor, 2013). For example, Blaise and Taylor (2012, p. 92) talk of a four-year-old boy who enjoyed playing cops and robbers with other boys and who would declare himself both a policeman and a mother: 'Dressed in a blue dress and a policeman's hat, Reg always cradled a baby doll'. Osgood (2014) suggests that such scenes can be understood as children *playing with* gender, and post-developmentalist approaches can pay attention to the multi-layered complexities in small and larger challenges to gender rigidity.

Wohlwend's (2012) study of two five- and six-year-old boys regularly playing with dolls shows how some boys can successfully navigate gender non-conformity. They did this by attributing gender to the dolls or, when other boys were involved, playing with the dolls in masculine ways. This could be an example of Osgood's (2014) *playing with* gender. These children may be exploring gender expressions, or they may be exploring their gender identity, or both, in inconsistent, intersectional and fluid ways that may disappear or persist into adolescence (Ehrensaft, 2018).

'As time moves forward and the public becomes more aware of gender as a spectrum, a rainbow or a multiple rather than binary construct, with it has come a whole new genre of youth who live between, among, or beyond the two-gender trope' (Ehrensaft, 2018, p. 42).

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[69] The first wave of feminism, during the later 19th and early 20th centuries focused on suffrage, the second wave, during the 1960s to the 1980s, broadened out campaigns to consider discrimination in the home, the workplace and broader society. Some have identified subsequent third and fourth waves that have both built on and critiqued previous waves.

Bragg *et al*. (2018) note that although non-binary genders and gender fluidity have existed for perhaps centuries, gender diversity is becoming more visible, offering multiple ways to perform gender identities. Their research with 12 to 14-year-olds found an openness to gender and support for gender diversity and non-conformity as something they felt was progressive. Some were openly non-binary, gender fluid or agender (the researchers counted 23 different terms used by the young people to describe multiple gender identities). Some experimented with gender identities in their online lives.

Despite these open perspectives, however, there were also local cultures of sexual harassment of girls and intolerance of gender diversity. Brito *et al*. (2021) show how gender non-conformity was often corrected in direct and indirect ways by the children they studied in a nursery setting. For younger children, freedom to *play with* gender (Osgood, 2014) is not straightforward, as it is not an individual decontextualised choice given how binary gender norms emerge from material-discursive practices (Brito *et al*., 2021; Hjelmér, 2020).

Gender non-conformity in boys' play is often more strongly censored than in girls' (Millan, 2012; Wohlwend, 2012). Adams (2013) traces a history of the 'war on effeminate boys' (after Sedgwick, 1993) in the United States and its connections with psychopathology, including links to the *Diagnostic and Statistical Manual of Mental Disorders* (APA, 2013). What is seen as bullying can often be shown to be gender normative attacks, often during play, on 'gender deviance' in ways that intersect with other markers of identity such as class, race and sexuality (Bryan, 2019; Ringrose and Renold, 2010). Bryan (2019, 2020) argues that the idea of hegemonic masculinity (the practices that legitimise male domination, including performing toughness, competitiveness, athleticism and superiority and that can be seen in children's play) does not apply to Black males because it does not bring with it the same rewards and privileges that it does for White males. In addition, Black boys are often treated as less innocent and older than their White peers, eliciting more punishing responses from adults, thereby affecting their play experiences and potentially setting them on a course of criminalisation (Bryan, 2020; Epstein *et al*., 2017; Pinckney *et al*., 2019). Similar issues apply to Black girls, who are also 'adultified', meaning that they are perceived as needing less support and protection than their White peers (Epstein *et al*., 2017). This highlights the intersections of gender and race (alongside other stratifications).

Race

The case of Tamir Rice illustrates the deadly consequences of racial profiling for Black boys and their families in the USA. The 12-year-old from Cleveland was shot and killed by police while playing with a toy gun because they 'presumed the boy to be a man with violent intent rather than a child deeply engaged in make-believe play' (Dumas and Nelson, 2016, p. 27). 'Playing while Black' (Pinckney *et al*., 2019) can be fatal for Black children. This analysis extends to mixed race Black boys also, who, as with Black boys, are 'read as dangerous, violent, or exotic' (Howard, 2021, p. 14) since, despite the sentiments of Howard's Black mixed race research participants that they were 'in the middle' (*ibid*., p. 18), together with the historical erasure of multiraciality, they also all felt that Blackness was 'undifferentiated' (*ibid*., p. 19), particularly in public spaces.

More broadly, Bryan (2021) argues that Black children are 'spiritually murdered' during play, meaning that they experience the trauma of White imaginaries (children and adults) that construct them as perpetrators who victimise others in play. The criminalisation of Black boys' play starts early and can be seen in early years settings where Black boys become victims of the 'school playground to prison pipeline' (Bryan, 2020) both through White children's 'accusations, fears, misperceptions, misinterpretations, and misreadings of Black boys' play' (p. 675) and subsequent adult punishments. Both Black boys and Black girls are more likely to be suspended from preschool in the USA than their White counterparts (Bryan, 2020; Meek and Evandra, 2020). Even when Black children are not being criminalised in their play, forms of play drawn from their own traditions, such as 'playing the dozens', which is about trading insults and is often played using AAL (African-American Language), draw censure from adults (Bryan, 2020). Such stories raise a challenge to romantic ideals of innocent and freely chosen play (Kinard *et al*., 2021). Drawing on Critical Race Theory, Black PlayCrit can help practitioners to recognise the everyday ways that anti-Blackness is inscribed onto Black children (Bryan, 2020; 2021; Kinard *et al*., 2021).

McDonnell's (2019, 2022) study of five- to eight-year-olds in the Republic of Ireland shows how play practices reflect societal exclusions, with one ethnic minority child feeling that nobody would play with him. At the same time, children could 'play' with narratives of race, giving the example of one Black girl who

'playfully engages with externally imposed constraints, imaginatively opening up gaps between the material and the immaterial. Importantly, in its playfulness this action addresses real power dynamics while evading direct scrutiny, in ways that are at once ambiguous and ripe with meaning' (McDonnell, 2019, p. 261).

In the UK, Rosen (2017) shows how everyday practices in an early years setting are also racialised. This racism cannot be detached from its colonial history and the dehumanisation of black people that was necessary to justify slavery and persists today in global inequalities. At the same time, it 'roosts in the routine' (Rosen, 2017, p. 178) of everyday practices that both sustain and have the potential to change it. She describes the play of four boys who often played together incorporating monsters into chasing, rough and tumble and imaginative play. All four boys at times initiated, innovated, collaborated and excluded at various times during the episodes. Discussions with the educators showed how they spoke differently of the four boys, seeing the two white boys as highly imaginative, skilled players, but interpreting the play of the two black boys as aggressive and wild and extending these interpretations beyond the boys' play. The children, too, sometimes saw the black boys' playing as problematic. For one of the black boys, often being the monster was how he was able to gain entry into play scenarios, and the two black boys were often given monster roles by other children in a self-reinforcing cycle that potentially limited the choice of ways of playing for the boys. Rosen suggests that the inscription of the 'monstrous' onto the two black boys' play and beyond to their non-play bodies was embedded in historical tropes of black bodies as monstrous, although not necessarily in any conscious or deliberately racist way. However, it did mean that the boys were seen as problematic, and that the circularity of the monster play tropes and inscriptions by staff could lead to a perceived need for disciplining in some way as the boys became distanced from 'idealised notions of the innocent, "productive" and playful learner in early years settings' (Rosen, 2017, p. 188).

3.3.4 Disciplinary perspectives and the politics of knowledge production

Scholarly interest in play runs across many academic disciplines and sub-disciplines, from psychology to sociology, from biology to neuroscience, from anthropology to geography and so on. Each discipline seeks to develop and put forward its own distinctive rendition of play, and to claim validity for that account, sometimes against the claims of other disciplines. In terms of theorising about play, these disciplines are fragmented, with significant differences in scientific perspectives and beliefs in the nature of scientific knowledge (Henricks, 2015a, 2015c, 2017; Sutton-Smith, 2017). Chapter 2 opened with a brief consideration of the processes of knowledge production and the role of power and authority in such processes, recognising that all forms of knowledge are 'situated', that is, they emerge from specific times, spaces and world views and are embedded in each discipline's principles, ethics, assumptions and methods. Such standpoints affect what research questions are asked, how they are explored and how results are interpreted. Standpoints are still evident despite traditions that seek to remove such biases through processes such as sampling, triangulation, tests for reliability and validity, and replicability, important though these are for some research methodologies. Understandings of children's play depend on where one stands (Sutton-Smith, 2017), and some stand in more powerful positions than others.

From an anthropological perspective, Stevens (2020) suggests that much play scholarship has been distracted by its focus on play's function, which perhaps has contributed to its failure to agree on a definition. This narrow focus has been on what anthropologists term an 'etic' approach: research questions, categories and interpretations have been from the perspective of researchers. There is also a need to consider an 'emic' approach: seeing play

as 'a state, on a cognitive, conceptual, and behavioral continuum' (Stevens, 2020, p. 163) requires considering the experience of play from the perspective of the players. This, he suggests, may lead to a new definition of play that scholars can accept.

Taking this further, beyond individual perspectives, Rautio and Jokinen (2016) challenge the quest for imposing a meaning (usually understood as a value) onto children's play practices and suggest that rather than seeking knowledge (epistemology), research can look at being (ontology) and how this arises from the assemblages of more-than-individual children. Looking at events in the here and now, research can address how events matter; looking for meaning after the event (ascribing function or value) takes the research outside of the event. The aim of research then becomes 'not to represent what matters but to re-present (make present) mattering' (Rautio and Jokinen, 2016, p. 45). Their example is of children playing with a pile of snow that had been removed from the highway to allow traffic to flow:

'When a shared deterritorialization is produced by snow, children, woolly mittens, scarves, boots, snot, rocks, ice, frost, dark nights, and lampposts to name but a few partaking elements, the children in the midst can be thought of as if freed from being viewed as individual representatives of a developmental phase, freed from being viewed as "growing up," and freed from one's doings viewed as "meaning" something other than what sustains the activity' (Rautio and Jokinen, 2016, p. 44).

Empirical research on the benefits of play for individual children generally (but not only) sits within disciplines such as biology, psychology and neuroscience. Culturally oriented disciplines (for example, anthropology, sociology, geography, folklore) tend to focus more on the 'how' of playing, and/or on play's benefits for communities (Henricks, 2015a), although this is by no means a clear distinction and should not be seen as perpetuating the nature-culture binary (see, for example, Stevens, 2020).

In addition, an appreciation of play is intimately connected with the ways in which societies understand and value the period of childhood (Gosso, 2010; Grimes, 2021; Magladry and Willson, 2019; Ramchandani, 2021; Saltmarsh, 2014). While play may be a ubiquitous feature of childhood, an understanding of the underlying relationship between play and culture is far from complete (Roopnarine, 2011), and culture intersects with policy and both professional and everyday practices, to produce norms of play that are pedagogised and commodified (Saltmarsh, 2014). The complexity of cultural practices is overshadowed by universal accounts of childhood and play based on minority world perspectives that ignore cultural forces that shape ideas about play and childhood and hence children's play patterns (Roopnarine, 2011). Generalising from play research through the lens of minority world cultures should be done with great caution, particularly if such generalisations then inform international development projects with majority world peoples (Lancy, 2015).

Beyond the binary of play's intrinsic and instrumental value

'What [most play] theories have largely in common is the assumption of utility and the methodological prerogative of observation. In other words, play is supposed to have a purpose apart from itself and it can be analyzed through observing the players, for example in a laboratory or ethnological setting. However, shifting our attention from the third-person perspective rooted in scientific method to the first-person perspective of the player, a fundamental problem arises. For the player, play must remain inherently purposeless or it is not recognized as play but as work, learning or other activities that aren't pursued for their own sake. Then, if the immediate experience of play escapes utilitarian reasoning, how do we make sense of functional explanations?' (Straeubig *et al*., 2016, p. 216).

This seeming binary contradiction is particularly evident in the policy and advocacy literature on children's play, as discussed in chapter 2 (section 2.3.1). Much of the biological and psychological research into play starts from the assumption that play, like all behaviour, must have a function, and that one of the purposes of research is to decide what that function is. Yet, from the perspective of the player, play must be experienced as 'inherently purposeless' otherwise it no longer feels like play. Straeubig *et al* (2016) suggest that trans-disciplinary research can help to move beyond the seemingly unresolvable dualism. Similar arguments for bridging disciplinary divides have been made by others (for example, Sydnor and Fagen, 2012), although working across disciplinary boundaries is not easy (Alanen, 2012). Whilst such a transdisciplinary synthesis is beyond the scope of this multi-disciplinary review of the literature, we have in places made some suggestions. One example is to explore the potential of the relational capability approach as outlined in chapter 2 and in section 3.2.1 of this chapter.

In his analysis of the philosophies of Aristotle and of Bernard Suits, who both discuss the relationship between play, autotelic activities (for their own sake) and *eudaimonia* (a good life of flourishing, a life that has meaning), Lopez Frías (2020) shows how play encompasses both intrinsic and instrumental aspects, and can be both a means to an end and an end in itself. For example, children may engage in an episode of play both because they want to for its own sake and because it will further their friendship with other players. Or a child will practice skills such as tree climbing or riding a bike because they will be useful in play. Furthermore, Aristotle argued that pleasure was an extrinsic outcome of an activity. For Suits, what is important is that the activity itself is primarily autotelic and that players have what he called a 'lusory' or playful attitude.

From a posthuman perspective, Rautio and Winston (2015) re-entangle the binary of play as a means (to gain knowledge) and play as an end in itself (as a way of being) through understanding it as intra-active, emerging from entanglements:

'the emphasis in studying play as intra-active shifts from seeking a definition of what play is (for) towards the ways in which playing (re)generates those playing, all in complex relations to each other. Intra-active playing is thus never "free" but always interdependent, never "guided" but always generative and becoming. Intra-active play is about being "in it" together: becoming human beings in relation to one another and to the world' (Rautio and Winston, 2015, p. 17)

What is also apparent in the literature is an appreciation of the reciprocal, bi-directional relationship between play and skills development (Lillard *et al.*, 2013; Lockman and Tamis-LeMonda, 2021; Solis *et al.*, 2017). That is, children clearly develop social, physical, emotional and cognitive skills when they play. At the same time, each form of play requires certain skills and the more developed these skills, the more complex the play. Play may provide a motivation for skills development, in a parallel argument to Sutton-Smith's (2017) argument that the positive affect of play motivates more playing.

Questioning claims regarding the relationship between play, learning and development

By far the dominant strand of play research in the minority world considers play's relationship to children's development and learning (Beresin *et al.*, 2019; Glenn *et al.*, 2012; Henricks, 2015a, 2017, 2020; Smith, 2010; Sutton-Smith, 1997; Woodyer *et al.*, 2016), particularly cognitive development, echoing a similar dominance in childhood studies generally, as described in chapter 2. Some have critiqued and questioned the 'strong and unqualified assertion of the functional importance of play … [as] *essential* to adequate human development' (Smith, 2010, p. 28, emphasis added; see also Burghardt, 2015; Cook, 2019; Fagen, 2011; Grieshaber and McArdle, 2010; Pellegrini, 2009a; and a review by Lillard *et al.,* 2013 of studies into the relationship between pretend play and cognitive development). 'Essential' is emphasised, because there are other possible relations such as play being one of many possible contributors to development (equifinality) or that play is epiphenomenal (that play is a by-product and effects on development come from other causes such as people or environment). These positions refer to research into pretend play particularly (Lillard *et al.*, 2013) but could extend more generally, with a call for more nuanced positions on specific forms of play for the development of specific children at specific times and in specific contexts (Smith, 2010). Criticism of claims for the relationship rest on identified weaknesses in research methods, implementation and analysis (Lillard *et al.*, 2015; Smith, 2010).

Others offer a post-developmentalist stance[70] that explores how power plays out in the institutions where children play, looking at how children perform, perpetuate, police, resist and reconfigure dominant power relations across intersections of race, class, gender, ability and more (Saltmarsh, 2014). As Fagen (2011) notes, these writers are not saying there is no value in play, but they do caution against over-enthusiastic readings of research data:

'In discussing developmental benefits of play, it is important to continue to distinguish between speculation and scientific fact, particularly once cameras roll and reporters grub' (Fagen, 2011, p. 92).

Sharpe (2019, p. 49) goes so far as to assert that 'no other behaviour has laboured under so much misinformation – churned out endlessly by the popular media – or has engendered so much scientific speculation'.

Empirical research argues that the classic theory that asserts the function of play is to practice the skills needed in adult life has little evidence to support it, and so considering the function of play requires more nuanced perspectives (Burghardt, 2015; Eberle, 2014). Yet from an evolutionary perspective, the fact that juvenile play has evolved and is evident across all mammalian species (and some non-mammalian species) suggests it must have some evolutionary value beyond the proximate cause of the pleasure it usually entails (Gray, 2019; LaFreniere, 2011, 2013; Sharpe, 2019). Some have suggested that, rather than play being a rehearsal of specific skills needed in later life, it is related to the development of behavioural flexibility (Fagen, 2011; Kellman and Radwan, 2022;

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[70] See chapter 2, section 2.3.7.

Pellegrini, 2009a; Sutton-Smith, 2017) and 'meta' skills such as executive function and metacognition (Barker *et al.*, 2014; Lillard, 2017; Pellis and Pellis, 2017; Whitebread and O'Sullivan, 2012); divergent thinking and creativity (Bateson and Martin, 2013; Fehr and Russ, 2016; Hoffmann and Russ, 2012), and more general motor and social skills that are beneficial immediately in childhood as well as (perhaps more problematically) deferred benefits later in adulthood (Bateson, 2015; Pellegrini *et al.*, 2007; Pellis and Pellis, 2009).

Here it should be noted that the distinction between cognitive, sensory and motor domains has been challenged, showing how action and movement are crucial for executive functioning and how cognition is embodied and embedded in the environment (Archer and Siraj, 2015; Bergen, 2019; Koziol *et al.*, 2012; Shaheen, 2014; Sriraman and Wu, 2020).[71] Furthermore, there is much research pointing to the idea that play 'may help to produce a better balanced individual emotionally' (Pellis and Pellis, 2009, p. 98), particularly in areas such as emotion regulation and stress response systems that help when faced with unexpected events or stress (Gray, 2019; Kellman and Radwan, 2022), with correlation being particularly strong for forms of social play such as rough and tumble (Marks *et al.*, 2017; Pellis and Pellis, 2009; Sharpe, 2019).

Sutton-Smith (2017) suggests a role for play in emotional survival through exercising raw emotions in a relatively safe frame, promoting the emotional vitality of life and helping us to 'live more fully in the world' (p. 35).However, even with some of these more cautious claims, there are those who suggest the current evidence is not sufficiently strong and more research is needed (Sharpe, 2019), showing correlation but not necessarily causation (Gray, 2019). The evidence is considered in more detail throughout this chapter.

Given the focus of this review, ideas of how play aids development are considered through the lens of the relationship between play and wellbeing.

3.3.5 Studying play: methodologies and methods

Such claims, rebuttals and counterclaims suggest there is a need to consider how researchers and theorists reach their conclusions. The diverse academic disciplines that have studied play ask different questions of play and begin with different understandings of the nature of the world and our ability to know about it. These differences are evident in the range of theoretical assumptions, methodologies, methods and approaches to analysis (Johnson and Dong, 2019; Smith, 2010; Tudge *et al.*, 2011). Most, however, agree that universal generalisations and grand theories arising from research about play's benefits should be offered with a great deal of caution. This section considers some of the key theoretical assumptions underpinning approaches to research and their methods, noting that all have their strengths and limitations.

Approaches to researching children's play have changed over time as both the technologies available (such as neuroimaging, smart phones or the range of cameras available) and underpinning assumptions shift. For example, the 'classic' (Euro-American) theories of play at the turn of the nineteenth and twentieth centuries were limited by the research tools available and were embedded in – and products of – the concerns and fascinations of their time, namely 'ideas of civilization, race, instinct, and unilinear evolution' (Henricks, 2015d, p. 178). In addition, contemporary accounts of these theories repeat single ideas from their work (for example, Groos' practice theory, or Spencer's surplus energy theory or Hall's recapitulation theory), passing over some of the more nuanced and complex ideas such thinkers put forward (Henricks, 2015d). And, as Burghardt (2019, p. 15) says, 'All these theories have been amended, critiqued, dismissed, and ridiculed, but all capture some truths about play'.

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[71] See section 3.5.3 for more on this.

Positivism and its critiques

The ideas in classic theories of play were also rooted in the optimism that there was a knowable and fixed reality to be discovered together with a steadfast and sacrosanct belief in scientific methods that could discover and communicate that reality. Such 'positivism' is a theory of knowledge (epistemology) that underpins much research into children's play, particularly in biology, neuroscience and some branches of psychology and sociology, and by those using both quantitative and qualitative methods. Building on earlier Enlightenment ideas, positivism emerged in the late nineteenth and early twentieth centuries and was rooted in the assumption of universal truths that can be derived from rigorous, valid, replicable and objective empirical data (Park *et al.*, 2020).

More nuanced and contemporary versions are sometimes called 'post-positivism' (see, for example, Zhao *et al.*, 2019, on the work of the PEDAL Research Centre at Cambridge University) or 'critical realism' (Alderson, 2016). These approaches still maintain that there are truths to be discovered, but acknowledge both the complexity of social life and observer fallibility, seeking to overcome these by using multiple and triangulating methods (Russell *et al.*, 2017a). Alderson (2016, p. 202) critiques the aim of observer neutrality in positivism, suggesting that this 'suspends moral judgements … When meaning is detached from direct living (epistemology from ontology), connections between research data and conclusions and between recommendations and later policymaking may look like tenuous constructions'.

Ethologist Robert Fagen, in reflecting on the hypotheses and mathematical models of his own early research into animal play (Fagen, 1981), suggests that 'the once-revolutionary initiative of field studies on animal behavior is still rosily tinted, and understandably so' with the optimistic belief in a knowable world (Sydnor and Fagen, 2012, p. 76). He also notes that even then he had doubts, speaking of play's 'profound mystery', doubts repeated more recently (Fagen, 2011, p. 84). Such doubts are often also reflected in many positivist studies and the theories that arise from them, which are usually cautiously proffered by their originators even if taken up emphatically and unproblematically by play advocates with the best of intentions (Burghardt, 2015; Fagen, 2011; Lillard *et al.*, 2013; Pellegrini, 2009a; Smith, 2010).

Such a critique of positivism, however, does not constitute a plea to eschew such approaches to researching play. What is suggested is that *in addition*, there are also rich possibilities in looking beyond the search for certainty and embracing play's 'otherness' and 'plotlessness' (Sydnor and Fagen, 2012). Such a move has in recent years produced some new thinking in children's play (for example, Horton and Kraftl, 2018a, 2018b; Lester, 2020; Pyyry, 2015; Pyyry and Tani, 2019; Rautio, 2013a; Rautio and Jokinen, 2016). Nevertheless, it still runs counter to the politics of the research landscape in the UK. In the entrepreneurial neoliberal university, research agendas are caught up in the competing demands for income generation and knowledge generation, and research that draws down highest funding is prioritised. In addition, public and commercial research funders allocate funding in line with the interests of governments and businesses in ways that privilege quantitative, positivist research that will inform or justify political and commercial aspirations (Edwards, 2022).

- **Positivist methods: experimental research:** some psychological and biological and most neuroscientific studies of play are experimental, taking place either under controlled laboratory conditions or in more natural settings (Burghardt, 2015; Smith, 2010). Such studies broadly look to change normal contexts, for example enhancement or deprivation of play, and can control more easily the number of variables that may confound claims of cause and effect (Smith, 2010). Many neuroscientific studies use animals, particularly rats, a highly playful species (Siviy, 2016). Methods include interventions to alter sensory information processes and brain functions (including use of neurochemicals and other drugs), removing or damaging some parts of the brain, isolation and other changes to the environment, all combined with close observation of behaviours (Jackson and McGlone, 2020; Kellman and Radwan, 2022; Neale *et al.*, 2018; Pellis *et al.*, 2014). Questions can be raised both about the ethics of such experiments and about how far such research can be extrapolated to humans (Bovenkerk and Kaldewaij, 2015; Ram, 2019), not least because of differences in the complexity of play behaviours (Neale *et al.*, 2018). Halliwell (2018) argues that although there are differences in brain size relative to body, the structure, cellular physiology, processes and development of mammalian brains

is comparable to humans, meaning that there can be some cautious extrapolation from animal studies to humans. Panksepp (2016) argues forcefully that primary emotion processes that can be studied using neuroscientific methods with animals that are homologous (in the same neuroevolutionary category) with humans. Whilst neurological research on children has used neuroimaging (fMRI), there are challenges with this in terms of researching play as 'it is difficult to exert the level of experimental control and temporal precision required … while also retaining the freeform, diverse quality which many consider to be a defining feature of play' (Neale *et al*., 2018, p. 2).

- **Positivist methods: observation:** a key research method used across many forms of play research is observation, sometimes linked to experiments in positivist research. Observation allows researchers to see what actually happens, rather than other instruments such as interviews and questionnaires, which rely on participants' accounts of what happens (Smith, 2011). Yet, whether carried out in controlled or naturalistic settings, what is seen can still be a matter of the researcher's understanding, interpretation or bias (Johnson and Dong, 2019; Lillard *et al*., 2015). In positivist and post-positivist research, issues of validity and reliability are all-important, and this requires clear observational instruments that help researchers code behaviours under investigation, with methods to promote reliability across different researchers; clear sampling strategies and units of measurement; and statistical analysis aimed at objective, valid, reliable and replicable results (Johnson and Dong, 2019; Neale *et al*., 2018; Smith, 2011). Several observational coding tools exist; one frequently used example is Rubin's (2001) Play Observation Scale, which looks at both social aspects (coding for solitary, parallel and group play) and cognitive aspects (functional play, constructive play, dramatic play, games with rules and exploration, which is treated as non-play), each with clear definitions. Other recent examples include researcher generated scales (for example, Chazan, 2012; Engelen *et al*., 2018) and child-generated scales (for example, Barnett, 2013).

Positivist research using both experimental and observational approaches is popular because it appears to offer objective proof of play's benefits in the particular circumstances of the research. Yet, even where there is some control over confounding variables, correlation can still be confused with causality (Lillard *et al*., 2013; Smith, 2010). In addition, sometimes it is questionable whether results can be generalised beyond the actual research study if sample sizes are small and studies are not replicated (Smith, 2010).

- **Positivist methods: surveys and questionnaires:** surveys and questionnaires are common tools in quantitative or mixed methods studies across a range of disciplines, sometimes alongside journals or diaries, observations, interviews and other methods. They can be useful indirect sources of information, gathered efficiently from large numbers of respondents, and if questions are closed with scaled tick box responses, they are easy to analyse statistically (Johnson and Dong, 2019; Tudge *et al*., 2011). In studies interested in context, however, more open questions can be used together with opportunities for open text responses, although on their own surveys offer limited contextual or nuanced data (Tudge *et al*., 2011).

In many studies, parents and other adults are surveyed on children's play (evident in systematic reviews such as Audrey and Batista-Ferrer, 2015; Lambert *et al*., 2019; Umstattd Meyer *et al*., 2019; see also Dodd *et al*., 2021b). There are advantages to this approach, in that they can provide information over longer periods of time or across a broader range of contexts than observation or testing (Bornstein, 2014). However, there are clear limitations to such approaches, including the fact that adults can only really report on what they know or see (Tudge *et al*., 2011), and that children's own experiences are missed (Alderson, 2014). Often, parental perceptions or reporting is combined with other methods (Bornstein, 2014), including methods for children's perspectives, usually also through using questionnaires or journals (for example, Han *et al*., 2018; Loebach *et al*., 2021), thereby enabling forms of triangulation of data towards more valid and reliable conclusions (Bornstein, 2014). Archbell *et al*. (2020) suggest that, particularly in research concerning children's behaviour/play patterns, journals and daily logs have become more common than questionnaires, as they allow for broader and more varied responses, including contextual information.

Constructionism

'To be worth studying, play does not always have to be *for* something else' Cohen (2019, p. 16).

Positivism is often contrasted with (social) constructionism, sometimes also referred to as interpretivism (Robson, 2011), although there are some differences. The broad philosophies of constructionism and interpretivism include a range of theoretical positions that generally work with the belief that the (social) world is socially constructed, contextualised and subjective, rather than existing as a stable objective reality that can be discovered through scientific method (Alderson, 2017; Hammersley, 2016; Spencer *et al.*, 2014; Weinberg, 2014). Researchers operating from a constructionist position seek less to find necessary and sufficient explanations for the social world and more to promote socially just understandings, looking at the way people make meaning of their lives. Fixing ideas, such as a definition of play or ages and stages of child development, reifies these phenomena and prevents new and different ways of understanding them, and so some of the work of constructionists can entail *de*constructing traditional beliefs (Weinberg, 2014). Challenging the essentialist idea that aspects of social life are 'natural' and therefore immutable is an endeavour that seeks more just social arrangements (Alanen, 2015). Such a position needs to acknowledge that researchers and the researched are situated within and produce particular contexts, hence objectivity is neither possible nor desirable, but reflexivity is important (McDonnell, 2022; Pyyry, 2015; Shier, 2022; Weinberg, 2014).

However, positivism and constructionism as research philosophies cannot be set up as binary opposites, with both sides seeking only to diminish or dismiss the other, despite a seemingly unbridgeable gulf between the two world views (Weinberg, 2014). More nuanced positions both within these two philosophies and outside (see the section on 'beyond constructionism' below) alongside critical interdisciplinary dialogue have helped to dissolve simplistic dualities, as with that between quantitative and qualitative research (Doyle *et al.*, 2016; Given, 2017; Weinberg, 2014). Mixed methods are often used to provide balance and work with differences, to gather statistical data and rich detail (for example, Beresin, 2014; Marsh *et al.*, 2020; McNamara *et al.*, 2018a; McNamara *et al.*, 2018b; Oliver *et al.*, 2011). Horton and Kraftl (2018a, p. 218) note that much research into the geographies of children's play foregrounds '*either* universalised, macrogeographical statements about play *or* microgeographical particularities of play-itself'. They make a case for considering how the macro level socio-political forces intersect with children's everyday play lives.

Constructionist studies of children's play tend to focus not on the importance of playing for individual children's development but more on the meanings and experiences of play (Meire, 2007), its collective, group-level benefits (Henricks, 2015a; Meire, 2007), and on how and where children play (Evans and Horton, 2016; Meire, 2007). As a result, studies using these approaches are more evident (but not exclusively) in chapters 4 and 5 of this review.

Methods in qualitative research from a constructionist perspective

Given the aims of constructionist research, it is almost by definition qualitative and inductive. Key methods for studying children's play include observation, interviews and focus groups, and a growing range of creative methods used in research with children rather than on them. Although methods such as observation and interviews are used in positivist research, their design, intention, implementation and analysis differ.

In qualitative approaches, such as ethnography, observation is by far the most used method and is often used alongside other methods not to measure but to gain insights (Meire, 2007). The aim here is a rich or thick description rather than categorisation. With these studies, observations are in everyday settings over a period of time, and researchers tend to be more involved rather than observing from a position of separation (Johnson *et al.*, 2015; Rosen, 2015a). Such participant observation (or, perhaps more accurately as Woodyer [2008] suggests,

observant participation) involves more than merely seeing, engaging all the senses, for example hearing and sometimes participating in children's conversations or their narrations of their play, but also the embodied experience of being there, being aware of body language, tone, movements, shared experiences, touch, the feel of particular toys or other objects, taste, even smell and feelings. Sometimes these other ways of sensing children contradict what is seen, bringing the researcher (and their situated interpretation) into the research: 'the *way* we record observation is not a mirror of reality but a selection, shaped by our categories of thought' (Albon and Rosen, 2014, p. 88). Video recordings are useful for a focus on detailed actions and interactions and on what children say, although as Meire (2007) notes, not for those conversations or actions that are hidden and/or secret, and sound is often difficult to capture in a noisy school playground (Richards, 2011). Albon and Rosen (2014) also note that observation cannot be separated from everything else that is happening: children absorb observation into their practices, make comments or ask questions about what observers might be recording and who they might tell; observations themselves can be used to 'fix' children into adult-generated categories.

Interviews, focus groups and conversations are also common methods, perhaps more with adults, where they tend to be used either to gather their views on children's play as professionals or family members (for example, Atkinson *et al*., 2017; Lee *et al*., 2015; Long *et al*., 2014) or their own memories of childhood play (for example, Farley *et al*., 2020; Harris, 2017). Many studies speaking to parents also speak to children (for example, Krishnamurthy, 2019; Long *et al*., 2014). Others speak only to children (for example, Howard *et al*., 2017; Kapasi and Gleave, 2009; McDonnell, 2019; Sandseter, 2010). Interviews, focus groups and conversations in qualitative, constructionist research tend to be semi-structured and open-ended, since the aim is to gather contextual details and the meanings interviewees attach to children's play.

Observation and conversations are often used in conjunction with other methods, including arts-based, creative, visual, embodied and multimodal methods (Beresin, 2014; Glenn *et al*., 2012; Marsh and Bishop, 2013; McDonnell, 2019; Potter and Cowan, 2020; Willett, 2015). One example is Potter and Cowan's (2020) observations of children in a school playground, which employed multimodal methods of producing data by both adults and children including field notes, photographs, audio recordings, video recordings at both ground and air level, drone recordings and interviews with the children (adult methods) alongside playground video tours, child-to-child interviews, drawings/maps of the playground and games and GoPro recordings using a chest harness (child methods). Such methods do not aim for replicable and universal findings but rather seek to 'represent the "messy" and "kaleidoscopic" worlds of children's play' as a form of meaning-making (Potter and Cowan, 2020, p. 251).

Mapping has been used in a number of studies exploring children's relationships to both institutional and public spaces (for example, Horgan *et al*., 2022; Horton and Kraftl, 2018a, 2018b; Kearns *et al*., 2016; Krishnamurthy, 2019; Mitchell and Elwood, 2012; Owens, 2018; Russell *et al*., 2020, 2021; Russell and Stenning, 2022). Approaches have included annotating existing maps, using online maps or children drawing their own maps. Mapping brings a geographical perspective to children's play, looking at the spatial conditions of children's lives and the power relationships in the production of space.

Photography is also used to engage children in spatial research, often in conjunction with interviews (for example, Arvidsen and Beames, 2019; Bourke, 2017; Mitchell and Elwood, 2012; Owens, 2018; Pyyry, 2015). As with other visual and/or embodied approaches such as drawing, mapping and walking, photography can help move research beyond the limits of rationalising language (Pyyry, 2015) and can also diffuse the power of the researcher (McDonnell, 2019). Mitchell and Elwood (2012) suggest that the process of representational practices, such as producing artworks, photographs and maps, gives rise to conversations that give children 'a rare opportunity to publicly articulate themselves in relation to the wider world' (Mitchell and Elwood, 2012, p. 797). Articulation here refers both to being able to represent their lives for themselves and to the idea of making connections, for example with others whose experiences are similar, and with structural political relations and practices that exert power and dominance.

Walking methodologies have also been used in play research, where children walk neighbourhoods with researchers and narrate their relationships with space and where they play (Aminpour *et al*., 2020; Carroll *et al*., 2019; Horgan *et al*., 2022; Horton *et al*., 2014; Kearns *et al*., 2016; Leyshon, 2016). Such methods can foreground the politics of spatial productions (Carroll *et al*., 2019). Walking is a bodily, social and political practice that is also emotional-affective in terms of connections with others (including non-humans and material objects) and spatial relations (Horgan *et al*., 2022; Horton *et al*., 2014). As with other spatial methods such as maps and photography, this approach foregrounds children's own wisdom about their own lives and spaces, as well as highlighting their role in the co-production of communities and local spaces (Horgan *et al*., 2022).

It is worth pointing out that such creative methods as map-making, drawing and walkabouts are not necessarily new, and were used in classic works such as Roger Hart's (1979) and Robin Moore's (1986), as described in Chawla (2015).

Beyond constructionism

Marks-Tarlow (2010, p. 34) outlines the need for thinking beyond traditional approaches to research:

> 'While linear science is useful for categorizing nature and collecting facts, play's exquisite idiosyncrasies often elude its research-based methods. Play's wholeness fragments under traditional research.'

In addition, Alanen (2015) argues that perhaps constructionism has lost its original revolutionary potential as it has become self-referential and occasionally stretched beyond credibility in assertions that everything is socially constructed. Many of the methods described above are also used in what is sometimes called post-constructionist research (Lenz Taguchi, 2012), but in different ways that aim to reconsider 'the kinds of knowledge(s) we seek' (Woodyer, 2008, p. 354), questioning core qualitative research concepts such as data, voice, theming, findings and participants (Mayes, 2019).

There are parallels here with the changes in studies of childhood outlined in chapter 2, where constructionism became almost an orthodoxy for the 'new' social studies of childhood (Alanen, 2015; Wyness, 2019), reproducing the nature/culture binary and occluding the biology and materiality of children's lives (Kraftl and Horton, 2019; Lee and Motzkau, 2011; Prout, 2005, 2011; Ryan, 2011; Woodyer, 2008). There have also been similar shifts in philosophical positions in researching play, particularly in the academic disciplines of children's geographies and, to a lesser degree, sociology.

Chapter 2, section 2.2.4 introduces more recent thinking from posthuman, new materialist and non-representational approaches to studying childhood. These ideas have also begun to emerge in play scholarship, although they are not as prevalent as they are in childhood studies more broadly or education research. Briefly, these approaches pay attention to what is missed through the positivist fixing, categorisation and representation of life, and through the 'humanist qualitative methodology where knowing is privileged over being and representational logic has it that words or research text or data can stand in for the world' (Rautio and Jokinen, 2016, p. 45). Instead, attention turns to detail, singularity, difference, continual change, bodies, movement, affect, relationality and matter. From this perspective, play emerges through encounters in between bodies (human, non-human, institutional), material objects, landscapes, histories, desires and much more (Änggård, 2016; Jones and Holmes, 2014; Osgood, 2014; Lester, 2020; Marsh and Bishop, 2013; Mereweather, 2020; Procter and Hackett, 2017; Rautio, 2013a; Rautio and Winston, 2015; Woodyer, 2008).

Approaches to research are experimental, not in the sense of the controlled laboratory experiments in positivist research, but an open sense of curious 'what if?' and 'what more?' might be thought and said about children's play that can deterritorialise habitual ways of thinking about it (Lester, 2020; Mayes, 2019). Studies do not concern themselves with what playing might mean, either for children themselves or for their development, but to what is obscured in the search for meaning, namely, what matters, and how 'matter' comes to matter (Änggård, 2016; Rautio and Jokinen, 2016). Such a philosophy is not offered as a replacement of what has gone before, as a linear form of progress in understanding the world, but as generative: a 'both/and' way of working rather than an 'either/or' (Lester, 2020; Mayes, 2019). Questions shift from looking at meaning to looking at how play emerges in embodied, relational ways and at performance, looking beyond children's 'voices' to more embodied actions (Lester, 2020; Mayes, 2019; Woodyer, 2008).

Some, but not all, researchers working in this field describe their work as 'post-qualitative inquiry' (Lather, 2013, 2015; St. Pierre, 2013, 2015, 2018, 2019). The term has been used in different ways, but generally describes forms of inquiry, mainly in education, that see research encounters as producing and re-presenting (making present again) what matters rather than representing forms of reality (Rautio and Jokinen, 2016). St. Pierre (2018, 2019) argues that there can be no pre-existing methods or even methodology that can identify research as post-qualitative, going so far as to say that it is 'methodology free' (St. Pierre, 2019, p. 3) and emerges from a deep engagement with what has become an accepted canon (Gerrard et al., 2017) of philosophy and theory.

Others who have used recognisable research methods have used the term 'diffractive methodology' (Fox and Alldred, 2021b) or diffractive analysis (Lenz Taguchi, 2012; Mazzei, 2014; Mereweather, 2020). This approach also seeks not to reflect reality (to interpret or seek meaning) but to explore different patternings, such as is produced through diffraction (Russell et al., 2017a) and map where they happen (Fox and Alldred, 2021b). Analysis also entails a deep connection with the theories, reading them through the data and insights to see what new ways of thinking might emerge.

For example, Pyyry (2015) argues that using photographs only as 'data' risks essentialising them, and that the visual is only one way of sensing the world. The acts of walking and taking photographs are acts of dwelling with public space in ways that are embodied and also cognitive, producing thinking about the habitual. In this sense, and drawing on the work of Ingold (2000), Pyyry suggests that understanding the world is not so much a social construction as an engagement, an act of dwelling. Talking about the photographs afterwards was seen not as eliciting data from the pictures but as events and encounters where the photographs participated alongside all the other aspects of the encounter, including extraneous sounds and interruptions and the researcher herself.

Whilst such approaches offer new insights, there are criticisms, including from those also working with and sympathetic to posthuman and new materialist philosophies. For example, its foundational theoretical canon and key concepts, such as relationality, materiality, movement and change, themselves perform a particular cut that excludes other ways of thinking, potentially setting up a dualistic opposition between such approaches and humanist qualitative research (Fox and Alldred, 2021b; Gerard et al., 2017). In addition, such cuts will inevitably emerge from the researcher's own perspectives and position in the world; whilst such subjectivity is acknowledged in constructionist approaches to research, Fox and Alldred (2021b, p. 7) suggest that diffractive analysis may be 'one of the most researcher-centric and context-dependent analytic approaches yet devised'. This, together with dense theorisations that can be difficult to understand (Gerrard et al., 2017) creates problems in terms of speaking to policy makers and professional practitioners. The boundaries for the approach preclude any collaboration with other approaches, thereby limiting its effectiveness to influence policy and professional practice towards social justice (Fox and Alldred, 2021b). Other criticisms include the observation that a focus on the 'new' occludes history and its attendant power relations (Gerrard et al., 2017; Mayes, 2019) in ways that can be decontextualised and depoliticised (Horton and Kraftl, 2018b), and erases non-Euro-American philosophies (for example, indigenous philosophies) that have long decentred humans and paid attention to the material (Mayes, 2019). That said, there are studies that work with the diffractive, materialist and relational to foreground issues of politics, for example Pyyry and Tani's (2019) analysis of young people's playful relationship with public space

and hanging out. Horton and Kraftl's (2018b) analysis of the visceral and sometimes disturbing socio-material processes that children raised when talking about their local playground engages with non-representational and materialist concepts, echoing some of the previous criticisms, whilst also raising a challenge to the idealisation of children's outdoor play and foregrounding the 'hidden-in-plain-sight' issues of race, religion, class and poverty.

What about children in play research?

This section considers key points in the ever-growing contemporary literature on children themselves in play research as research objects, subjects, participants and co-researchers. The issues here cover both the epistemological value and the ethics of empirical research on children's play. As an indication of the level of interest in this topic, an open-ended academic search for 'research with children' yielded over 430,000 results. A growing number of both practical and academic books are now available, some on their second or third editions, evidence of an ever-changing landscape of experience, reflection and thought (a few examples of books include Albon and Rosen, 2014; Christensen and James, 2017; Coyne and Carter, 2018; Greig *et al.*, 2013; Groundwater-Smith *et al.*, 2015).

As described above, approaches to researching children's play have broadened out from early experimental research *on* children to more participative methods (Cuevas-Parra and Tisdall, 2019; Gallacher and Gallagher, 2008; Mayes, 2019), such that participatory research has become 'gold standard' (Hammersley, 2016, p. 113). Much of this has to do with the adoption of the United Nations Convention on the Rights of the Child (UNCRC), and the growth in interest in children's participation more generally. Those researching from a rights-based perspective talk of children's 'right to be properly researched', a term used by Ennew and Plateau (2004), but a concept with a much longer history, and taken up more generally (for example, Beazley *et al.*, 2009; Graham *et al.*, 2013). International rights-based research grew significantly after the adoption of the UNCRC, not least because States Parties had to submit regular reports to the United Nations Committee on the Rights of the Child, and so there was a need to gather information to inform this. To support this, a collaborative international partnership established ERIC (Ethical Research Involving Children), which offers resources to support researchers, including an international charter. Core principles of the charter are respect, benefit and justice (Graham *et al.*, 2013). Drawing links to the UNCRC articles listed below, Beazley *et al.* (2009, p. 370) argue that research should be participatory, use methods that encourage such participation, protect children from harm from the research and be of high quality:

'the right to provide opinions (article 12), the right to freedom of expression using a medium of children's own choice (article 13); the right to protection from forms of exploitation not addressed in other articles (article 36); and the right to the highest possible standards being used in work with children (article 3.3)'.

High quality participatory research, according to Beazley *et al.* (2009), may use a range of methods including creative ones, but ultimately also needs to be scientific, systematic and open to statistical analysis, particularly if the purpose is to influence policy and practice.

However, whilst participatory research may appear to offer deeper insights, to help overcome adults' difficulties in understanding children and to be more democratic, such developments are not unproblematic (Alderson, 2012; Gallacher and Gallagher, 2008; Hammersley, 2016; Mayes, 2019; Thomson, 2007). Bodén (2021) describes how the ethics of participatory research are often judged on a sliding scale of research on, to, with, for and by children, but concludes that this is overly simplistic in practice, since ethics are messy, dynamic and contextualised. Often these prepositions intertwine, for example, research *on* children can lead to changes that benefit other children, meaning it can also be *for* children. In-depth discussions regarding ethics in research studies *on* children rarely end up being fully described in reports and articles, possibly leading to the mistaken assumption that they are considered less than in research with or by children (Bodén, 2021).

Perhaps an opening critical question might be to ask how participatory research might benefit the children who agree to be involved. Alderson (2012) suggests that much of it does not, beyond any gains from the process of participation. If the research is published and if its recommendations are implemented, any change is likely to be long after the participants can benefit from it. Cuevas-Parra and Tisdall (2019) make a counterclaim to this, citing a growing body of literature showing how participatory research has connected children's findings with those who can and have made changes that make their own and other children's lives better. Participatory Action Research (Derr and Taranti, 2016; Owens, 2018; Terada *et al.*, 2018) explicitly sets out to make changes, and this is embedded in the research design. For example, Owens' (2018) research with young people on their feelings of exclusion and censure in local parks produced exhibitions, events and a comic book that engaged with policy makers, with further follow up work taking place. Nevertheless, it is a salient question that should give researchers pause for thought.

A second question on the assumption of the epistemological value of participatory research might be whether children can give a more authentic account of their play than can be gained by observation or other research instruments. Even in participatory research, it is still the case that some children may say what they think the researcher wants them to (Albon and Rosen, 2014), since research does not take place in isolation from daily structures of power and dominance. Some have questioned whether children can 'know' about their own play and can then communicate this to adult researchers (Gallacher and Gallagher, 2008; Hughes, 2012; Lester, 2013b), and have also questioned the assumption that there is a single, core and stable 'self' that can be expressed in language (Mayes, 2019). The idea of 'voice' has been critiqued in the post-constructionist approaches described above. If agency is seen as radically relational, as emerging from encounters rather than possessed by individuals,[72] then this is the same for voice, which 'emerges from relations among objects, spaces, affects, bodies, discourses, texts, and theory, in dynamically shifting arrangements and re-arrangements (Mayes, 2019, p. 1193). Voices, therefore, are shifting, situated and partial and should not be confused with stable and universal truths.

Not only is the idea of children representing their own lives problematic, but so too is the extension of this to representing all children, including those who do not participate in research (Mayes, 2019), either in terms of being identified participants, or once in the research encounter. McDonnell (2022) argues that silences are equally as important as voice, particularly when uncomfortable or contested issues are being explored, such as, in this case, race: 'an interrogation of "voice", silence and the spaces within which voices are produced was central to understanding children's negotiations of race' (p. 190).

A third question is whether participatory research is more democratic, even 'empowering' for children, an idea closely linked to voice and agency. The previous discussion shows the need to consider the distribution of participation, interrogating who is invited and who feels able to participate, particularly in terms of inequalities (McDonnell, 2022). What is said (and not said) and what is heard by the researcher are not necessarily the same. Given this, researchers have an ethical responsibility to account for the research entanglement as a whole (participants, researcher, research artefacts, history, politics, the practices of knowledge production) and for 'what comes to matter during and after research encounters' (Mayes, 2019, p. 1204). Participation is usually on the researchers' terms, as instructions are given for how to participate; nevertheless, children's 'participation' and 'agency' can be seen in the ways they do or do not engage as requested (Gallacher and Gallagher, 2008; see also Albon and Rosen, 2014; Gallagher, 2008; Woodyer, 2008 for examples of children's participation outside of the prescribed methods, such as asking researchers questions, playing up to the video camera, mucking about, using creative resources for playing in ways that do not address the research task and general disruption).

[72] See chapter 2, section 2.2 for a more detailed discussion of agency.

Additionally, since the setting of research agendas and questions tends to happen before participatory methods are used, and therefore much research aims to address contemporary concerns about children, it may be that children are participating in processes that will regulate them or encourage them to regulate themselves (Gallacher and Gallagher, 2008). An example of this might be participatory research into children's physical activity and outdoor play.

Child-led research (for example, Bristow and Atkinson, 2020; Cuevas-Parra and Tisdall, 2019) works with the principle that participation should apply throughout the whole research process, so children and young people are supported to decide what will be researched, design the research, carry it out, analyse and disseminate it. Such research can be dismissed as not rigorous or theoretically informed, since research requires high levels of skills that children do not have. Responses of this kind privilege adult forms of knowledge production over children's ways of knowing, which can produce legitimate social research (Cuevas-Parra and Tisdall, 2019). Yet there is a fine line between adult facilitation and control, and the issues of representation outlined above can still apply.

Much has been written about the power relationship between adult researchers and child participants (Albon and Rosen, 2014; Bodén, 2021; Gallacher and Gallagher, 2008; Mayes, 2019; Woodyer, 2008), often setting up a simple fixed binary of powerful, competent adult researchers and vulnerable, incompetent child participants (Gallacher and Gallagher, 2008; Thomson, 2007). Often, the stated or implied intention for participatory research is to take some power away from adults and give it to children, 'empowering' them (Gallacher and Gallagher, 2008). This sees power as a fixed commodity that can be given or shared.

Woodyer (2008) suggests that thinking about research as a performance can offer a different perspective on fixed hierarchical researcher/researched relations, seeing power itself as performed and therefore fluid. From this perspective, attention turns from essentialised differences and to the flows of power. The embodied ways that children continually negotiate power highlights the relationality of agency (including with toys and other material objects, researchers and broader socio-material processes) and the relational performance of power.

Developing this further, Gallacher and Gallagher (2008) suggest that power can be seen not only as action, but (following Foucault) as action upon action, ways of acting that affect how others can act. Such actions operate at different scales (for example, individual and state) and their effects cannot always be predetermined. Power can be resisted, appropriated or evaded, as has been reported in various participatory research studies (for example, Albon and Rosen, 2014; Gallacher and Gallagher, 2008; Woodyer, 2008). Generally, however (and here Gallacher and Gallagher draw on de Certeau, 1988), such resistance is tactical and in response to actions of control, rather than strategic and devised away from the action space. Adult power can be seen as strategic and children's as tactical (see also Benson, 2022). However, Gallagher warns against romanticising resistance in this way, as what may be a tactical resistance of adult strategic power can also be the exercising of strategic power across other intersections of power, such as when boys dominate research spaces through resistance, preventing girls from engaging in their own ways. His final point is that power is not necessarily evil, it is productive, and that sometimes the exercise of power may be necessary to resist other forms of power.

This review of approaches to researching play shows the difficulties of arriving at absolute truths about its nature, function, forms and meanings. This does not mean, however, that all research should be dismissed as invalid. Rather, embracing multiple ways of making sense of play offers opportunities both to raise constructive criticism and to 'capture some truths about play' (Burghardt, 2019, p. 15).

3.4 Play and evolution

'Play cannot just be; it has to have a purpose. Otherwise, biology would not have permitted its evolution' (Cohen, 2019, p. 4).

Given that play has evolved and can be observed in mammals, birds and some other animals (although to varying degrees), that young animals engage in it despite obvious costs (energy expenditure, exposure to predators) and that juvenile mammals show a 'play rebound' after being deprived of play, it may be assumed to serve some evolutionary purpose (Gray, 2019; LaFreniere, 2011, 2013; Sgro and Mychasiuk, 2020; Sharpe, 2019). Play's relationship with evolution is mostly studied, both empirically and conceptually, by ethologists (looking at animal play), biologists, neuroscientists, and those working in fields of evolutionary psychology, evolutionary developmental psychology, sociobiology and related disciplines (Bateson, 2015; Burghardt, 2015; Pellegrini *et al*., 2007; Smith, 2010), although disagreements abound (Rose, 2012). Studies consider why and how play has evolved, what its function might be for the development of individuals (ontogeny) and what its purpose might be for the evolution of the species (phylogeny), these being separate although interlinked questions (Burghardt and Pellis, 2019; Pellis *et al*., 2015). As has been previously discussed,[73] such approaches are not without their critics (see, for example, Grossi *et al*., 2014). Some criticisms focus on colonialist assumptions of the genetic and evolutionary superiority of white, educated men producing the early studies in the late nineteenth and early twentieth centuries and carried forward to contemporary studies (for example, Fallace, 2015; Gagen, 2007; Garrison, 2008; see also section 2.2.1).

3.4.1 Beyond genes: alternative inheritance systems

Another criticism, often from within the broad discipline of biology itself, challenges the enduring deterministic focus on genes as the sole source of heritability (Bateson, 2015, 2017; Bateson and Martin, 2013; Jablonka and Lamb, 2007, 2014; but see, for example, Bjorklund and Pellegrini, 2011 for a defence of evolutionary developmental psychology). As Jablonka and Lamb (2007, p. 356) note:

'New discoveries in cell and developmental biology and in the behavioral and cognitive sciences mean that it no longer makes sense to think of inheritance in terms of almost invariant genes carrying information about traits encoded in DNA sequences.'

Alternative inheritance systems include the transmission of symbiotic bacteria in the womb; direct (cellular) epigenetic transmission, where variations that are not the result of DNA differences (activated or silenced genes) are passed on; indirect epigenetic transmission through the mother's behaviour; and social learning. Whilst behavioural transmission and social learning might appear to be to do with individual development rather than species evolution, novel sequences of behaviour (sometimes in incomplete ways) can become part of behavioural repertoires and may eventually occur in future generations spontaneously without learning (Bateson and Martin,

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[73] See section 3.3.4.

2013; Jablonka and Lamb, 2014; Panksepp, 2008). Jablonka and Lamb go further to include symbolic inheritance systems (for humans, the most obvious one is language, but others are mathematics, music, visual arts); again, although these are learned, they are stable species traits. What these alternative inheritance systems imply is that the classic nature/nurture dualism is dissolved, and that a systems approach to development (Bergen *et al.*, 2016; Fagen, 2011; Fromberg, 2015; Oyama, 2016) can offer up interesting perspectives on play's function and particularly its relationship to wellbeing. Sgro and Mychasiuk (2020, p. 26) suggest that epigenetics can 'provide a framework for the bidirectional relationship between genes and environment that is responsible for governing play behaviour and the social brain', although there is currently little research in this area. Rose (2012) argues that what all this implies is that we can no longer think of evolution as a purely biological process.

3.4.2 Play as a 'coevolutionary multiplex of functions'

As has already been said, play is not a single homogeneous phenomenon, and different forms of play have different evolutionary origins and pathways and serve different functions (Burghardt, 2015; Burghardt and Pellis, 2019; Smaldino *et al.*, 2019). What this means is that there can be no overarching theory about the origins, function or causal mechanisms of play as an umbrella concept (Burghardt and Pellis, 2019). Sutton-Smith (2017, p. 51) suggests that play is a 'coevolutionary multiplex of functions': no one theory is sufficient to account for play's and players' many varied forms. Broadly, however, most evolutionary theories posit that play's ontogenetic function is to aid juveniles to adapt in various ways to their specific environments, and that such adaptiveness can affect phylogenetic evolutionary processes through innovation and creativity (Bateson, 2015; Burghardt and Pellis, 2019; Pellegrini *et al.*, 2007).

Burghardt's surplus resource theory posits that the key conditions for the development of play in animals with complex behavioural repertoires are excess resources (of time and energy) together with protection from the 'costs' of playing, usually through parental care providing food and shelter and protection from predators (Burghardt and Pellis, 2019; Pellis *et al.*, 2015). Early forms of play are likely to have been relatively rudimentary and not necessarily have any function at all (primary process play). Through individual experience and genetic, epigenetic and cultural evolutionary processes, play may evolve into simple secondary process play (mostly locomotor and object forms of play) and more complex tertiary process play (social and combined forms of play that require creativity and awareness) (Bateson and Martin, 2013; Burghardt and Pellis, 2019). Simpler forms of play are more prevalent across different species, with more complex forms being rarer and limited to species with longer periods of immaturity and where the benefits of play outweigh the costs (for example, from predation or not fulfilling other survival needs) (Bateson and Martin, 2013; Smaldino *et al.*, 2019).

The functions of simple forms of play such as object play and locomotor play are likely to be honing muscular and neural systems, whereas the functions of more complex forms of social play (an example in animals is rough and tumble play) are in terms of fitness (adaptiveness to the environment), adaptive responses to novelty (training for the unexpected) and socio-cognitive skills (including the development of neural structure and machinery) (Pellis *et al.*, 2015; Smaldino *et al.*, 2019), all of which contribute both to current and later wellbeing. Gray (2019, p. 84) summarises four key potential evolutionary functions of play:

'Play may be a means by which individuals (1) practice skills that are essential to their survival and reproduction; (2) learn to cope physically and emotionally with unexpected, potentially harmful events; (3) generate new, sometimes useful creations; and (4) reduce hostility and enable cooperation.'

Skills practice may well be present across simple and complex forms of play. In cultural species (like humans), many skills can be taught, or learned through observation and copying (often in play) (Gray, 2019), meaning that play may not be *essential* for their development but may be 'equifinal' (Smith, 2010).

In complex forms of play, animals and children may deliberately put themselves in tricky situations to then recover. Examples include risk-taking, chase games and playing with fear (from early peek-a-boo to ghost stories). This is play as a form of training for the unexpected: 'play appears to strengthen neural pathways connecting the pre-frontal cortex with emotion-control areas lower in the brain. These brain changes may mediate the effect of play on animals' abilities to modulate their emotions in stressful situations' (Gray, 2019, p. 94).[74]

Complex forms of play can generate 'novel ways of dealing with the environment, most of which lead nowhere some of which turn out to be useful' (Bateson and Martin, 2013, p. 4). Such forms of play can have evolutionary adaptive benefits. Furthermore, Bateson and Martin theorise that creativity of this sort, through playing, forms part of the evolutionary loop to greater complexity: for example, an animal may, through playful creativity, realise a new way of acquiring food, and elements of the sequence of behaviour may in subsequent generations occur spontaneously until the whole sequence can occur without being learned, freeing up time and resources for further creativity and discovery of novel adaptations.

Gray's (2019) fourth evolutionary function involves forms of social play where players have to exercise co-operation and restraint, for example in rough and tumble play, where players self-handicap and use play signals and other forms of metacommunication to communicate that the behaviour is playful. For juveniles, such playing may help in forming social bonds, reducing the chance of hostility and facilitating co-operation (see also Panksepp, 2010, 2016; Panksepp and Panksepp, 2013; Panksepp *et al*., 2012; Pellis and Pellis, 2017; Pellis *et al*., 2018). Panksepp (2015, p. 480) suggests that 'as PLAY promotes the pro-social construction of our minds, it becomes one of our most valuable genetically prescribed tools for living'.[75]

Overall, in a review of a number of evolutionary studies suggesting a range of adaptive functions for play broadly in line with the suggested functions described here, Sharpe (2019) systematically shows a lack of unequivocal empirical evidence, either due to flaws in research design or to showing correlation but not cause. Whilst accepting the plausibility of these claims, she urges caution and argues that further research is needed.

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[74] See section 3.7.5 for more on playing with surprise.

[75] See section 3.7.3 for more on rough and tumble play and emotion regulation.

3.5 The brain at play

'We live in a time of multiple neuro-ontologies where one academic discipline after another adds the prefix "neuro-" to emphasize a new awareness of the significance of neuroscientific findings to their specific fields of study: neuro-economics, neuro-marketing, neuroarchitecture, neuro-psychology, neuro-education, and on and on' (Lenz Taguchi, 2016, p. 37).

This section offers a brief general overview of neuroscientific research into the importance of play for children's wellbeing. A review of neuroscientific methods is offered in section 3.3.5, and other sections throughout this chapter draw on the findings of such research relevant to those sections. We also wish to emphasise that the literature is highly technical, discussing areas of the brain and neurobiological and neurochemical processes in detail. We have tried here to give an accessible summary and hope that this does not misrepresent the complexity and nuances in the original studies.

In summary, neuroscientific research into play suggests that play is a 'bottom-up' neural process (or system as some suggest, see Panksepp, 2010, 2012, 2016; Panksepp *et al*., 2019; Pellis *et al*., 2019). The motivation for play originates in the reward systems (a commonly used but contested term for the subcortical positive affect networks that include sensory and motor networks). This connects with and activates cortical areas and processes, supporting adaptation to complex physical, social and cultural environments (Kellman and Radwan, 2022; Panksepp, 2016; Siviy, 2016). Adaptations include social sensitivity, empathy and affiliation; executive functioning (including attention, planning and decision-making; emotion regulation; impulse control) and stress response systems supporting the ability to cope with novel situations. The release of neurochemicals including opioids when playing is what gives rise to the pleasure that generally accompanies it, providing more motivation to play. Given this, play and its associated neurochemical processes are thought to provide resilience against depression (Panksepp, 2008, 2010, 2015; Sgro and Mychasiuk, 2020) and against stress (Burgdorf *et al*., 2017; Sharpe, 2019), positioning it as central to children's wellbeing in terms of the pleasure it offers.

'Abundant early social play is critical not only for individual mental health, but also for the health of our societies. Thus … we need to create social environments for children that not only allow, but also encourage, them to satisfy their natural and joyful play urges' (Panksepp, 2015, p. 481).

This often-repeated view from Panksepp, usually in the context of play's potential for reducing ADHD symptoms (Panksepp, 2007, 2008, 2017; Siviy and Panksepp, 2011), is entirely congruent with our proposal for a relational capability approach that pays attention to the conditions that support children's play. Following such a clarion call, however, we offer a note of caution that aims to temper the enthusiasm of some play advocates' claims for what neuroscience can tell us about children's play:

'Neuroscience is one of the hottest fields of research within the life sciences, and its theoretical claims, research findings and technological prospects have implications that extend far beyond the internal debates within the discipline … [It] has an annual budget that runs into hundreds of millions of dollars, provided by State funding agencies like NIH (National Institute of Health), charities like Wellcome, biotech companies, Big Pharma, and, of course, the military. On the back of such funding, we are offering not just to explain the human mind and its elusive properties, from memory to consciousness, but also to provide technologies to cure brain and mind diseases and enhance human happiness; indeed to use these technologies to control and manipulate the mind. It is precisely for this reason that neuroscience has become too important to be left to the neuroscientists' (Rose, 2012, p. 53).

Although this quotation from neurobiologist Nikolas Rose is over ten years old, the points he raises here are still relevant (Altikulaç *et al*., 2019; Borsboom *et al*., 2019; Münch *et al*., 2021; Signorelli and Meling, 2021). Chapter 2 (particularly sections 2.3.1 and 2.3.7) considers how reductionist (and sometimes inaccurate) ideas about the brain and child development have been taken up in policies for children in ways that responsibilise the poor and other oppressed groups (for example, Edwards and Gillies, 2020; Edwards *et al*., 2021). In addition, popular ideas about neuroscience become embedded in ways that influence behaviour more generally. For example, Altikulaç *et al*. (2019) found that teenagers' and parents' ideas about the 'teenage brain' were largely negative and used as a causal explanation for behaviours such as lack of impulse control or rebelliousness. In addition, they also found that such beliefs became self-fulfilling prophecies, in that teenagers were more likely to behave in line with their ideas about teenage brains in terms of risk-taking behaviours and responses to academic setbacks.

A key problem is *explanatory* reductionism, a tendency encouraged by technologies in genetics and brain imaging from which some over-enthusiastic researchers, advocates and policy makers infer empirical truths for the real-world human condition (Altikulaç *et al*., 2019; Borsboom *et al*., 2019; Rose, 2012; Tallis, 2016). For example, the compellingly simple images of brain activity belie a host of data processing stages including statistical analysis and smoothing of datasets to eliminate 'noise' (the many other activities that are captured by the imaging process) and 'spatial normalisation' of the final images onto a template brain image to allow for comparison (Dufford *et al*., 2022; Dumit, 2012; Glover, 2011).

It is accepted that research necessarily has to isolate single components (*methodological* reductionism), but the conflation of research data with the phenomena under investigation misrepresents the complexity of human life (Choudhury and Ferranti, 2018; Choudhury and Slaby, 2012) in that it does not address the gap between description and explanation (Krakauer *et al*., 2017). The reduction of complex and intra-related systems to single genes (the idea that there is an isolatable gene *for* something) or discrete areas of the brain isolates biological and neurological processes from their irreducible relations in ways that have political and ethical implications. Such explanatory reductionism also perpetuates classic mind-body and nature-culture dualisms, implying that humans are reducible to their brains (Choudhury and Slaby, 2012). As Rose (2012, p. 58) says, 'reductionism becomes a problem … when it becomes ideological and impinges on medical or public policy'.[76]

However, this is not a reason to dismiss neuroscience and what it can offer our understanding of play. Anthropologist Phillip Stevens (2020) argues in favour of the importance and potential for a neuroscience of play, noting that studies to date have provided neurobiological support for many of the theories articulated

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[76] These issues are addressed in sections 2.3.1 and 2.3.8 in chapter 2.

in anthropological studies. Similarly, Bergen *et al*. (2016) show how neuroscientific research aligns with earlier theories from developmental psychology. However, this could, of course, be examples of neuroscience being co-opted to shore up existing beliefs and values rather than to disrupt business-as-usual and present something new (Lenz Taguchi, 2016).

Many neuroscientific researchers themselves caution against simplistic interpretations and generalisations of research findings (Kellman and Radwan, 2022; Siviy, 2016) and Sgro and Mychasiuk (2020, p. 33) warn, 'How exactly the brain regulates play behaviour and which areas are specifically involved in the many aspects of this complicated behaviour, remain speculative'. In addition, much of the literature on play and brain development comes from neuroscientific studies on animals and has tended to focus on social play, particularly rough and tumble (Kellman and Radwan, 2022; Sgro and Mychasiuk, 2020),[77] and although some argue that neural processes are homologous, that is, in the same evolutionary category (for example, Panksepp, 2016), others urge caution (di Domenico and Ryan, 2017; Neale *et al*., 2018).

3.5.1 Beyond understanding the brain as a computer

A common view is that the brain is where thinking (or cognition) happens (Corris and Chemero, 2022), and that it is an information processor, with neurons receiving sensory and cognitive (bottom-up and top-down) inputs releasing either an excitatory or inhibitory neurotransmitter to send on messages for action or inhibition of action (Bergen *et al*, 2016; Corris and Chemero, 2022; Estrin and Bhavnani, 2020; Koziol *et al*., 2012; Signorelli and Meling, 2021; Steffen *et al*., 2022). Computer metaphors abound, as researchers discuss computational processing, wiring (including hard wiring), neural circuits, programming, coding and algorithms (Burke *et al*., 2020; Krakauer *et al*., 2017; Redish *et al*., 2019; Rose, 2012; Signorelli and Meling, 2021), with minds as the software (Protevi, 2012).

Those involved in the development of affective neuroscience argue that the focus on cognitive (computational) and behavioural aspects of the brain largely ignore sub-cortical[78] affective processes. A growing number of studies show how affective processes, in relation with nurturing environments, are crucial for effective cognition, aligning with our relational capability approach proposition:

'The human brain, like the human mind, is intrinsically multilayered … The three main mental processes – primary-process emotions, secondary-process learning, and tertiary-process cognitions – correspond to three distinct, albeit interdependent and nested, hierarchical neural systems. It is within the intersystemic nested-hierarchies of the brain, interacting with the world, that the whole mind emerges, with all its developmental successes and vicissitudes' (Panksepp *et al*., 2019, p. 44).

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[77] See section 3.7.4.

[78] The cerebral cortex is the outermost layer of the brain that is associated with higher mental capabilities and processes (for example, decision-making), with lobes having specialised areas including sensory processing, language and voluntary movement. The sub-cortex is the older (in evolutionary terms) area of the brain associated with more immediate responses to environmental stimuli.

Other critics argue that life (consciousness, subjectivity, behaviour, movement, emotions) cannot be reduced to electrochemical neural communication, and that 'there is something unique in the intrinsic organization of cells and neurons which makes them alive' (Signorelli and Meling, 2021, p. 783). Moreover, since the 1990s, researchers have found that the brain does much less information processing than initially thought (Corris and Chemero, 2022). Brains are 'plastic' and adaptive and, in some situations and to some extent, capable of adapting to injury and bringing other areas into use, but perhaps at long term cost (Bathelt *et al.*, 2020; Hillary and Grafman, 2017). In addition, studies show how humans use their bodies to adapt to situations in intelligent ways that make up for gaps in information (Corris and Chemero, 2022).

Alternative models suggest more relational perspectives and include network models (Borsboom *et al.*, 2019), biological modelling based on life processes (Signorelli and Meling, 2021), and dynamical systems theory and embodied cognition (Corris and Chemero, 2022), which suggests that 'brains are not best understood as executives that plan and control action, but rather as flexible participants in the brain-body-environment systems that enable intelligent actions' (Corris and Chemero, 2022, p. 417). Similarly, bodies cannot be reduced to collections of muscles, nerves, bones, and so on. Bodies are experienced, lived, and orientation to the world is in terms of what it offers for action, what it affords. From this perspective, cognition and perception are not only brain functions but rather something that humans do, mostly through movement (Corris and Chemero, 2022; Sheets-Johnson, 2018). Some researchers have grouped these approaches under a broad 4E umbrella, suggesting that cognition is Embodied, Embedded in the world, Enacted through movement that creates meaning and Extended into material objects, with this being broadened to a 4EA model that added Affective aspects of cognition, moving it away from a focus on the rational (Choudhury and Slaby, 2012; Corris and Chemero, 2022; Protevi, 2012). Section 3.6 looks at playing with movement and 3.7 at playing with affect.

3.5.2 Brain maturation processes and play

Post-natal brain development involves changes to the size, shape, structure and organisation of the brain and takes place at different rates at different times across different areas of the brain (Estrin and Bhavnani, 2020). Although new neurons do form, and also some die, maturation consists mostly of synaptogenesis (the formation of the connections between neurons that is integral to the architecture of networks and connectivity), synaptic pruning (the adaptive loss of unused synapses that helps with efficiency and speed of neural processes) and myelination (the formation of myelin protein sheaths around the axons of neurons that speeds up the passage of electrical impulses along the neuron) (Bergen *et al.*, 2016; Estrin and Bhavnani, 2020) as well as changes in neural circuitry (Casey *et al.*, 2019). These elements of brain development are experience-dependent (Tierney and Nelson, 2009), highlighting the interrelatedness and interdependency of brains, minds, bodies and environments, and in line with ideas from developmental systems theory (Oyama, 2016)[79] that brain maturation is nonlinear, dynamic and self-organising (Bergen *et al.*, 2016; Marks-Tarlow, 2010).

Certain periods of maturation are considered to be 'critical' or 'sensitive'. Although the brain retains an experience-dependent plasticity throughout life, during sensitive periods this plasticity is experience-expectant, meaning that specific experiences are needed for optimal development of specific functions to adapt to those environments. Nevertheless, the brain can still develop some functions once the window of sensitivity is past and some compensation for earlier poor environmental input is possible (Fuhrmann *et al.*, 2015; Gabard-Durnam and McLaughlin, 2020; Reh *et al.*, 2020). Much of the focus for such periods is on the early development of sensory, motor and language skills (Fuhrmann *et al.*, 2015), but many argue that adolescence can also be considered a sensitive or critical period (Andrews *et al.*, 2021; Casey *et al.*, 2019; Fuhrmann *et al.*, 2015; Larsen and Luna,

[79] See chapter 2 section 2.3.7.

2018). Some have suggested that the concept of sensitive periods has been taken up enthusiastically by policy makers and practitioners to reinscribe linear developmental trajectories and/or simultaneously blame parents (mostly mothers) for not staying at home to care for children, or for raising them with insufficient care thereby justifying the need for funded early years services (Lenz Taguchi, 2016).[80]

Whilst there have been some advances in identifying which areas of the brain and which processes are involved in specific forms of play, 'the neural circuitry of play is ill-defined and diffusely embedded within the well-characterized social and reward networks' (VanRyzin et al., 2020, p. 64). For typically developing children, some parallels can be seen in the forms of play they exhibit and specific aspects of brain maturation (Bergen et al., 2016; Marks-Tarlow, 2010). Overall, play is at its most abundant at the same time as periods of neurodevelopment (Sgro and Mychasiuk, 2020). It seems fair to assume that such correlation between play preferences and brain maturation implies that the experience of playing affects how the architecture and networks of the brain develops over childhood and adolescence, with the converse also being true.

Early infancy is a time of spectacular rates of synaptogenesis, particularly in the visual, motor and sensory areas of the brain (Bergen et al., 2016; Estrin and Bhavnani, 2022), which correlates to sensorimotor forms of playing (Bergen et al., 2016). Such forms of playing, together with the social interactions with others (mainly caregivers) also support the development of mirror neuron networks. Mirror neurons are activated both when performing an action and when sensing others performing an action. Initially, the sensory focus was on observation (Bekkali et al., 2021; Bonini et al., 2022; Heyes and Catmur, 2021), but has been extended to sound (Butera and Aziz-Zadeh, 2022; Heyes and Catmur, 2021) and touch, suggesting multimodality (Bonini et al., 2022). Mirror neurons are thought to develop from motor neurons (Heyes and Catmur, 2021). Sensorimotor and social-emotional infant-caregiver games such as tongue-poking, cooing, or playing peek-a-boo perform a key role in this process, as well as in synaptogenesis in the limbic region involved in emotions, offering further support for the idea of embodied and affective cognition (Bergen et al., 2016; Butera and Aziz-Zadeh, 2022).

Mirror neurons are highly plastic and variable and continue to change during development (Tramacere et al., 2016) and into adulthood (Catmur, 2013; Heyes and Catmur, 2021). They are thought to play a low-level role in action-perception systems, specifically speech perception, action processing and imitation (Heyes and Catmur, 2021). There is some empirical evidence to show a causal link between the mirror neuron system and emotional attunement with others (Abrutyn and Lizardo, 2020; Bonini et al., 2022) and empathy (Bekkali et al., 2021; Butera and Aziz-Zadeh, 2022), although others argue there is little evidence to support the idea that mirror neurons are involved in inferring the intentions of others (Heyes and Catmur, 2021). Initial ideas that they may play a role in autism have not been conclusively empirically supported (Bonini et al., 2022; Heyes and Catmur, 2021). New directions in mirror neuron research look beyond single motor neurons to other 'mirror-like' neurons that play a more networked role in emotions, spatial locations, reward, decision-making, attention direction and beliefs (Bonini et al., 2022; Butera and Aziz-Zadeh, 2022). This potentially broadens out understandings of the social and emotional aspects of playing given that studies show how several areas of the brain are involved during play (Sgro and Mychasiuk, 2020), and particularly the networks and processes that have to do with motivation and reward (Panksepp, 2016; Sgro and Mychasiuk, 2020) as well as sensory and motor processing (VanRyzin et al., 2020).

Imitation and forms of affective attunement are foundational to and developed during pretend play in early to middle childhood (Bergen et al., 2016; Butera and Aziz-Zadeh, 2022). The emergence of pretence and symbolic play in typically developing children parallels a period of synaptogenesis in the frontal lobe of the cortex, and subsequent synaptic pruning brings efficiencies in cognitive processing, memory and problem solving. Such

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[80] See also chapter 2, sections 2.3.1 and 2.3.7.

pruning continues across the cortex through childhood and well into the twenties and thirties (Estrin and Bhavnani, 2020), bringing a narrowing of interests (Bergen *et al*., 2016). The pre-frontal cortex plays a role in cognition and decision making as well as impulse control (Sgro and Mychasiuk, 2020), necessary for engagement in increasingly complex rule-bound games (Bergen *et al*., 2016).

The pre-frontal cortex is also involved in rough and tumble play alongside reward and motivation networks and sensory and motor processes (Kellman and Radwan, 2022; Pellis *et al*., 2018; VanRyzin *et al*., 2020). These act in a networked, co-ordinated manner, rather than through individual activation, and are also affected by neurochemicals, levels of which vary between males and females (VanRyzin *et al*., 2020). This and other forms of social play help to shape neural networks in ways that affect emotion regulation, impulse control and cognitive and social skills (Pellis *et al*., 2018).

Adolescence brings a second wave of dynamic brain development, including both synaptogenesis and synaptic pruning, particularly in the pre-frontal cortex affecting executive function and in the ventral striatum, which is associated with reward processes (Estrin and Bhavnani, 2020). Changes also occur in the limbic system, which is involved in memory, learning and emotion (Bergen *et al*., 2016). Asynchronous and hierarchical changes in the tunings of neural networks that occur from late childhood into early adulthood may offer an explanation for heightened emotional reactivity in early adolescence as networks across sub-cortical regions change first, followed by connections between sub-cortical and cortical regions, finally with changes to networks across cortical regions (Casey *et al*., 2019). Some suggest that the rise in sensation-seeking during adolescence is adaptive, in that it motivates children to engage in experiences that support individuation, although it can also make adolescents vulnerable to harm from risk taking (Larsen and Luna, 2018).

3.5.3 Towards a neuroscience of play

As has been noted, much of the neuroscientific research into play has been on animals and on rough and tumble play (Kellman and Radwan, 2022; Sgro and Mychasiuk, 2020). Nevertheless, some cautious parallels can be drawn, particularly in social forms of play.

Social play offers a balancing of safety and danger at both a functional and neural level, of automated and new responses to environmental stimuli and experiences, and of adequate and inadequate gating of sensory experiences (the filtering out of sensory experiences that are not pertinent to the situation) (Kellman and Radwan, 2022). Areas of the brain involved in social play include the pre-frontal cortex, which is important for cognition, impulse control, and decision making, and the amygdala, which plays a role in processing emotion, including the pleasure associated with playing (Sgro and Mychasiuk, 2020). Several subcortical areas of the brain support the motivational and sensorimotor aspects of playing. Several neurotransmitters (serotonin, opioids, dopamine, cannabinoids and norepinephrine) have varied roles including modulating responses to social cues, motivation and the hedonistic experience of playing (Kellman and Radwan, 2022). In addition, the autonomic nervous system (comprising the sympathetic and parasympathetic systems) plays a key role. The sympathetic system responds to cues of danger by releasing adrenalin and triggering the fight or flight response. The parasympathetic system

operates principally through the vagal nerve, a long nerve that extends through the chest, abdomen and down to the colon. The vagal nerve is split into two pathways. The ventral vagal pathway responds to cues of safety and supports social engagement; the dorsal vagal pathway responds to cues of danger through immobilisation, freezing. Social play and social engagement require suppression of fight or flight or immobilisation response and so help to develop the inhibition of these responses in appropriate situations (Kellman and Radwan, 2022). For children this inhibition could include regulating over-reactions to what might be perceived as threats, including accidental hurting in rough and tumble play, teasing, or other situations that may trigger a danger response. Given this, play may enable flexible and creative responses to unpredictable, novel or surprising events (Andersen *et al*., 2022; Kellman and Radwan, 2022; Siviy, 2016).[81]

Beyond rough and tumble play, a systematic review of studies on the neural basis of video gaming suggests they can enhance attention (particularly active games), visuospatial skills and cognitive control (particularly working memory) and reward processing, although the variety of methods and approaches in studies make generalisations difficult. Video game addiction is linked to reward systems and closely mirrors other forms of addiction. Exposure to violence can lead to short term desensitisation, although regular gamers do not lose the ability to distinguish between real and virtual violence (Palaus *et al*., 2017).

Affective neuroscience

Panksepp's affective neuroscience (Panksepp, 2010, 2012, 2016; Panksepp *et al*., 2019) posits that there are seven primary-process emotional systems based in the subcortex (always presented in upper case to avoid confusion with everyday understandings): FEAR, RAGE, PANIC, SEEKING, CARE, LUST and PLAY. The first three are seen as negative and experiments show that animals actively avoid situations that activate them; conversely, the last four are seen as positively valenced and are actively sought out. SEEKING can be understood as a primary emotional circuit in that it motivates the others (Kestly, 2014). Panksepp's theory is fundamentally a social theory, to do with connectedness with others. CARE, LUST and PLAY emerge in the context of, and help to build, connections, whereas PANIC (understood as separation anxiety and sometimes called GRIEF), FEAR and RAGE emanate from a sense of disconnection (Kestly, 2014).

Play is seen as a source of joy, acting as an anti-depressant, and also supports the development of social functions of the cortex including social sensitivity and empathy. Positive affects are life affirming, but negative affects are also important. Wellbeing might be understood as the capability (understood as both personal capacities and environmental opportunities that can be accessed, in line with a relational capability approach) to maximise the positive affects, particularly SEEKING, PLAY and CARE and modulate/minimise FEAR, RAGE and PANIC.[82]

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[81] This aspect of play is discussed in more detail in section 3.7.5.

[82] See sections 3.7.2 and 3.7.4 for more on this.

3.6 Playing with movement and the senses

'We, as adults, seem to be so obsessed with trying to work out *why* we play, what it *is* and what it all *means* that we perhaps lose sight of the *movements* of play and the pleasure and joy that moments of play produce' (Lester, 2020, p. 25, emphasis in the original).

'Most approaches to studying play do not account for movement, change, and process' (Eberle, 2014, p. 220).

Understanding play as a process inevitably requires thinking about movement, both in terms of physical movement and the process of change as these opening quotations suggest. Playing is a lively and vital process and children are rarely still when playing. Even if not engaging in vigorous activity, they are restless, seeking out moments for feeling better. Lester (2020, p. 59) adapts Curti and Moreno's (2010) concept of mo(ve)ments of play to highlight 'the interconnectedness and continuous dynamic relationship between perception, sensation and movement'.

This section opens with a consideration of the literature on locomotor play and then moves on to review the current interest in 'active' play promoted in policy. It ends with a broader discussion of play and movement, including the importance of the senses, and how such forms of play can contribute to children's wellbeing.

3.6.1 Locomotor play

Pellegrini (2011) notes that locomotor play has been studied much more by biologists and ethologists than by developmental psychologists despite the fact that much of the research suggests the benefits of locomotor play can extend beyond physiology to the cognitive, the social and the emotional. Indeed, locomotor play as a discrete topic appears rarely across a range of disciplines in play scholarship outside of animal studies. For example, of three influential and recent handbooks on play (Johnson *et al.*, 2015; Pellegrini, 2011; Smith and Roopnarine, 2019), comprising a total of 99 chapters, there is only one chapter dedicated to locomotor play (Pellegrini, 2011). Locomotor play forms one of three basic types of play seen throughout mammals and other animals, the other two being object play and social play. These play forms are not necessarily discrete and are often found in combination (Pellegrini, 2011). Locomotor play involves movements such as running, climbing, chasing, swinging, sometimes involving novel sequences, and with a vigorous physical component. It may include rough and tumble play, although this is now primarily seen as social play by ethologists or, increasingly, as risky play since it was included in Sandseter's (2007, 2010) categories of risky play that have been widely adopted (Brussoni *et al.*, 2015; Tremblay *et al.*, 2015; van Rooijen *et al.*, 2020).

Pellegrini (2011) suggests two types of locomotor play: rhythmic stereotypies, which can be seen in the repetitive movements of infants in the first year of life, and exercise play, the types of locomotor play described above in which children engage once they can walk. These two distinct forms may have different origins and different functions. Rhythmic stereotypies may improve infants' control of specific motor movements and patterns. The benefits of locomotor play post-infancy (exercise play) are both immediate and deferred (Pellegrini, 2009b). Although there are limited studies on children, those that do exist, together with animal studies, suggest locomotor play provides physical exercise and can support musculoskeletal development and strengthening (including developing and honing motor skills and building bone density), cardiopulmonary conditioning and metabolic capacity, although these may be dependent on the intensity and duration of locomotor play (Bateson, 2011; Burghardt, 2019; LaFreniere, 2011, 2013; Pellegrini, 2011). Although vigorous locomotor play may be costly

in terms of expending energy needed for survival for some animals, it does reduce stores of fat, and so can help to prevent or address obesity in children. However, this, together with thermal regulation, may be incidental, as such benefits can be achieved through non-play physical activity (Pellegrini, 2011).[83]

Locomotor play in animals is also useful for learning how to deal with diverse environments (Burghardt, 2019), both in terms of developing physical strength and skills but also honing nervous systems through synaptogenesis (the growth of new neural connections) (Bateson, 2011; Pellegrini, 2011). Most biological research on the cognitive benefits for locomotor play in children link it to increased attention and improved cognitive performance immediately after bouts of play (Pellegrini, 2011).

Whilst cautioning that more research is needed to show that these physiological and cognitive benefits do accrue and that they are as a result of locomotor play and not just exercise, a caution echoed by Sharpe (2019), Pellegrini (2011) argues that if children do not engage in enough locomotor play (because of lack of spaces to play, dangerous neighbourhoods, increased schooling, and other factors)[84], this is likely to have consequences for their physical fitness and cardiovascular health and their overall wellbeing.

3.6.2 'Active play'

Although there is a paucity of research on children's locomotor play, there has been a burgeoning body of research looking at children's physically active play as a public health issue linked to concerns regarding childhood obesity and lack of physical fitness,[85] including interventions to increase physically active play (for example, Audrey and Batista-Ferrer, 2015; Gray *et al*., 2015; Hyndman *et al*., 2014a; Janssen, 2014; Lambert *et al*., 2019; Lee *et al*., 2021; Mills and Burnett, 2017; Moser *et al*., 2021; Ridgers *et al*., 2010; Talarowski *et al*., 2019; Taylor *et al*., 2014; Tremblay *et al*., 2015; Umstattd Meyer *et al*., 2019).

Such research seeks to counter the tendency for policy makers only to consider organised forms of physical activity (for example, sports and physical education) and active travel rather than children's active play when developing strategies to increase physical activity (Janssen, 2014). As a result, many studies focus on measuring levels of physical activity in play to make the case (often benchmarked against national recommendations for time spent in moderate to vigorous physical activity) rather than the benefits of such activity *per se* (Gray *et al*., 2015).

Schools are a recognised site for interventions to increase physical activity through both formal and informal opportunities (Graham *et al*., 2021; Mills and Burnett, 2017; Welsh Government, 2020a), and there have been a number of studies aiming to show increase in physical activity levels through changes to school playgrounds and playtimes, including environmental modification, specific supervised activities or the introduction of loose parts (Bundy *et al*., 2017; Hyndman *et al*., 2014a, 2014b; Parrish *et al*., 2020 [a systematic review of 43 studies]; Ridgers *et al*., 2010; Taylor *et al*., 2014).

Some studies show higher levels of physical activity in active play than more organised forms of physical activity (for example, Appelhans and Li, 2016; Beresin, 2012, 2014; Janssen, 2014; Kearns *et al*., 2016; Mackett, 2013), with potentially greater caloric expenditure (Janssen, 2014). Barnett *et al*. (2017) found that children aged seven engaged in more physical activity if they thought they were good at it. However, such perceptions were not evident at younger ages (five years), suggesting that children need opportunities to develop physical skills

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[83] Although see section 3.6.2 below.

[84] See chapter 4.

[85] See also chapter 2, sections 2.3.1 and 2.3.6.

through play-based physical activity from an early age. This is supported by Martins *et al.* (2015) who found that adolescents, particularly girls, disliked the focus on competence and competition in organised sport, that they were discouraged by their perceptions of their own competence and body image, and that they were more likely to engage in physical activity if they felt it was fun. Block *et al.* (2017) suggest that promoting physical activity through play is easier than through sport as it is perceived as enjoyable and is less reliant on levels of competence or skill. Interventions to support children's desire to play are more likely to be effective than those promoted as 'work' or as being good for children's health:

'policies for promoting participation in physical activity are not appealing … and children and young people are more active when physical activity is self-fostered for its intrinsic pleasure' (de Rossi, 2020, p. 77).

Brockman *et al.* (2011) found that children aged 10 to 11 years were motivated to engage in active play because they enjoyed socialising with friends, it stopped them being bored, and it offered some freedom away from adult control.

By not investigating the benefits of 'active play' directly, such studies imply these are the same as for physical activity. Benefits depend on the form of activity (for example, moderate, vigorous, aerobic or resistant), and studies are not easily comparable. Nevertheless, benefits can include muscular strength, aerobic fitness (Martins *et al.*, 2015); increased agility, range of motion, flexibility, co-ordination and balance, and decreased fatigue, stress and depression (Yogman *et al.*, 2018); lower blood pressure in children with hypertension (especially for aerobic activity), improvements in levels of cholesterol and blood lipids and in metabolic syndrome and bone mineral density (Janssen and LeBlanc, 2010). In addition, movement helps increase blood flow and oxygen intake, and activates the lymphatic system, protecting against illnesses and allergies (Hanscom, 2016). Other benefits can include protection from conditions such as cardiovascular disease, diabetes, cancer, osteoporosis, hypertension, depression and obesity (Block *et al.*, 2017; Boddy *et al.*, 2014; de Rossi, 2020); improved mental health (Ahn *et al.*, 2011); improved self-esteem and cognitive functioning (Biddle *et al.*, 2019), all demonstrating clear connections with children's wellbeing. Looking specifically at active play rather than physical activity, de Rossi (2020) suggests that the joy, intrinsic motivation, sense of control and opportunity to experiment that is offered by active play can promote physical literacy, developing motor skills, agility and competence as well as the motivation to continue with physical activity later in life. Despite the broad range of physical, cognitive, social and emotional benefits, it is fair to say that the dominant benefit of 'active play' is assumed to be for physical health, both through energy expenditure and physical fitness (Alexander *et al.*, 2014, 2019).

Whilst play advocates have been promoting the value of play for children's health for decades, more recently such calls have also been made by paediatricians and other medical professionals (Bergen, 2018). For example, the American Association of Pediatrics calls on paediatricians to promote play to parents and even to 'prescribe play' during health visits in the first two years of life (Yogman *et al.*, 2018). Alexander *et al.* (2019, p. 8) argue that

'while promoting the physical health of children is a critically important aim, the possible consequences of increasingly emphasising play as a health practice ought to be questioned'.

They suggest that there are risks of promoting and organising play for instrumental health ends, which implicitly or explicitly promotes the idea that there are correct (that is, productive) ways to play that are valued over play's non-productivity. One such risk is the possibility that it may change how children themselves engage with such promoted forms of play. The idea that adults feel the need to instrumentalise play is not new and has pervaded the history of children's play,[86] and the promotion of physically active play to prevent or address obesity is a contemporary example. The instrumental narratives extend to the ways in which children themselves talk about their participation in active play, in that they explicitly acknowledge the health benefits (for example, Brockman *et al.*, 2011). The Curriculum for Wales (Welsh Government, 2020a, p. 74) states 'learners can develop positive, informed behaviours that encourage them both to care for and respect themselves and others'. The coupling of the instrumentalisation of active play for public health and the increasing responsibilisation of children and families for their own health and wellbeing[87] creates a fine line 'between pleasure and obligation' (Alexander *et al.*, 2019, p. 19). In addition, drawing on di Domenico and Ryan (2017), external rewards or motivation do not add to but can undermine intrinsic motivation, so it is possible that if children feel they 'ought' to engage in active play for its health benefits, they may be less interested and exhibit less spontaneous engagement.

3.6.3 Movement beyond locomotor and active play

In the biological literature on play, locomotor play is a separate category from object and social play (Burghardt and Pellis, 2019). It is of course acknowledged that the play types can and do occur in combination; of interest here is that all three types of play involve movement of some sort as do the additional play types discussed in section 3.3.2. As Henricks (2014, p. 196) comments: 'Almost always, play involves bodily activity – sounds, gestures, movements, and the like'. The focus on locomotor play and active play can have the effect of eliding what Sheets-Johnstone (2011) terms the 'primacy of movement'. Rather than considering the body as a mechanical object, the 'lived' body (after Merleau-Ponty) is 'felt, experienced, and sensed' (Farnell and Varela, 2008, p. 216); as such there is a focus on 'the feeling of doing' (*ibid*.) and on movement. The 'fixing' of play into definitions, types and functions can have the effect of rendering it static, losing sight of the ever-changing, dynamic movements and sensations of playing, where bodies are 'ever-restless, moving, sensing and responsive to local environmental conditions' (Lester, 2020, p. 81).

Perhaps a broader term to locomotor play might be borrowed and adapted from Piaget, that of sensorimotor play (Bergen, 2019; Prendiville and Fearn, 2017), since this encompasses more than Pellegrini's 'rhythmic stereotypies' or 'exercise play', or what is generally understood as 'active play' in children. In Piaget's categorisation, sensorimotor play is usually considered in relation to infancy and not throughout childhood and adolescence; whilst infant play may be limited to sensorimotor play, the concept offers a consideration of children's play in later years that can account for both the senses and movement beyond the limits of the motoric. From the first smile to testing objects by putting them in the mouth to games of peek-a-boo, children enact the interconnectedness of the senses and movement (Bergen, 2019), and this continues beyond infancy. Being able to engage in play requires sensory processing skills, including body awareness, balance and touch (Roberts *et al.*, 2018) as well as movement, sensory integration, and other skills associated with regular sensory experiences (Prendiville and Fearn, 2017).

It is almost a truism to say that through play children *make sense* of their world and of themselves, their capacities and potential (Atmakur-Javdekar, 2016; Brown *et al.*, 2019; Hakkarainen and Bredikyte, 2008; Henricks, 2014, 2015). Generally, however, this is interpreted as meaning-making rather than sense-making. Alternatively, 'making

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[86] See chapter 2, section 2.3.1 and this chapter, section 3.3.4.

[87] See also chapter 2, sections 2.3.1 and 2.3.2.

sense' could be defined less as a cognitive, abstract form of knowledge production and more as 'the subjective feeling of understanding, the emotional significance, value, and certainty that permits one to "go on" and that, when lacking, brings action to a halt' (Olson, 2022, p. 3). Such a definition highlights the interdependency of movement and the senses and provides broader connections between playing, movement, the senses and children's wellbeing.

> 'The slightest movement of a body instigates a qualitative difference: movement evokes feelings and sensations that fold into each other, resonate, interfere, intensify in unquantifiable (non-representational) ways to unfold again in movement (Lester and Russell, 2014b, p. 251).

Many of the studies exploring the relationship between play, movement and the senses can be found in occupational therapy (for example, Cosbey *et al.*, 2012; Goddard Blythe, 2017; Hanscom, 2016; Miller *et al.*, 2017; Roberts *et al.*, 2018), neuroscience (for example, Jackson and McGlone, 2020; Kellman and Radwan, 2022; Panksepp, 2010; Pellis and Pellis, 2013), or drawing on philosophy (for example, Hewes *et al.*, 2016; Lester, 2020; Olsson, 2009).

Occupational therapy sees play as an everyday occupation for children and so aims to support children to engage in play. Occupational therapists often provide play opportunities for children with sensory processing differences to engage in forms of sensory and vestibular-stimulating play (Bundy *et al.*, 2007; Hanscom, 2016; Roberts *et al.*, 2018).[88] Sensory integration as a process influences the development of play; equally, play influences the development of sensory integration (integration of actions with environmental information received through the senses) (Watts *et al.*, 2014). Although there is some evidence to show sensory processing differences affect children's play, such a generalisation hides details, which tend to show that children's play preferences correspond with their sensory preferences. For example, some hypersensitive children may engage in more sedentary play forms that help them cope with over-stimulating lights, sounds or textures, whereas hyposensitive children will seek out stimulating play forms that satisfy their sensory needs (Binder, 2021; Bundy *et al.*, 2007; Mische Lawson and Dunn, 2008; Roberts *et al.*, 2018; Watts *et al.*, 2014). It should be noted, however, that children do not always have the same sensitivities across all senses (Binder, 2021). Some children with sensory processing differences may find it difficult to read the social cues of their neurotypical peers and so may engage in more conflict or in more solitary forms of play (Cobey *et al.*, 2012). In institutional settings some forms of play may be perceived as disruptive and may attract constant censure (Binder, 2021; Conn, 2015).

Neurodivergent children, for example, those labelled with attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorder (ASD) and developmental co-ordination disorder (DCD), are more likely to have sensory processing differences (often described as problems) from neurotypical children (Dellapiazza *et al.*, 2021; Jorquera-Cabrera *et al.*, 2017; Pfeiffer *et al.*, 2014). In her analysis of autistic writers' memories of childhood play in their autobiographies, Conn (2015) notes that by far the most common memories were about the enjoyment of sensory experience that were described more powerfully than connections with human beings, sometimes as experiences that afforded a sensory high. These included 'the physical thrill they derived from running on the lines of tennis courts and being driven through the roundness of road tunnels', 'the "ecstasy attack" of listening to flour-and-water paste being stirred', 'the sight and sound of steam trains that "made me clap like a performing seal"', 'sitting on the beach as a child and watching each particle of sand pour through her fingers' and 'listening

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[88] See section below on proprioception and the vestibular system.

to gravel, running in circles with a stick, looking through coloured plastic, staring through the cat, getting lost in wallpaper, following lines and fences, feeling statues and looking at the hair of her friend, Elizabeth', (Conn, 2015, pp. 1196-1197). Many writers described how the feeling of their bodies moving, including running, jumping, toe-walking and also disrupting movements such as hanging upside down or twirling provided 'an enjoyable, reassuring and exhilarating sense of a bodily self' (*ibid*.).

In terms of therapeutic interventions using play, there is a tension between the medical deficit model aiming for normalisation (inherent in the language of 'disorders') and a more neurodiversity-informed approach that seeks a 'best-fit' for each child and their environment, addressing extrinsic factors and appreciating neurodivergent children's sensory and emotional experiences. Rather than seeking to prevent or mask coping behaviours (that can be adaptive), this approach provides opportunities for physical, sensory and emotional regulation (Leadbitter *et al*., 2021).

Neuroscience studies consider the neuroanatomy, neurobiology and neurochemical aspects of sensing and moving. From a neuroscientific perspective, Koziol *et al*. (2012) argue that the evolution of the human brain has been led more by the control of movement than the development of cognition and abstract thinking: 'We were not born to think. We were born to move' (p. 515). Challenging the dominant 'top-down' serial order processing model that says we perceive, then think, then act, they argue that this cannot account for how quickly many bodily actions (the vast majority of which are automatic and not conscious) adapt to changes in the environment. Instead, they propose a bottom-up model based on continuous sensorimotor interaction with the environment. Such a model is anticipatory not merely reactionary. 'Top-down' and 'bottom-up' refer to brain activity, and their model puts the cerebellum at the beginning rather than the frontal lobe of the cortex. The cerebellum is involved in the maintenance of balance and posture, co-ordination of voluntary movements, motor learning and some cognitive functions (Knierim, 2020), and the frontal lobe in higher cognitive functions. In this way they suggest that ways of knowing are grounded in sensorimotor interaction (sometimes referred to as 'embodied cognition').[89] Nevertheless, Koziol *et al*. (2012) also state that creating separate domains (for example, motor, sensory, cognitive, executive function, learning and memory) obscures the holistic activity of the brain. Sheets-Johnstone (2011, p. xvii) goes further and seeks to challenge the focus on the brain, which she refers to as 'made-in-the-West mind/brain and body/brain problems created by the errant reduction of living bodies to the neurophysiological matter located at the head end'. Humans are animate beings and animate beings are animated, continually moving. Moving is more than motoric, and central to animate life are kinaesthesia, tactility and affect. Given this, she makes a case for broadening out from the term 'sensorimotor' to 'sensory-kinetic' (Sheets-Johnstone, 2011, 2018, 2020).

All the senses are important and interrelated (Prendiville and Fearn, 2017). Playing in ways that engage the senses helps to develop 'the ability to receive sensory information, regulate and manage incoming sensations and respond within a comfortable range of arousal' (Fearn, 2014, p. 14). However, Sheets-Johnstone (2018, p. 11) notes that if the only senses we had were the five well-known ones (sight, sound, touch, smell, taste) 'we might as well be statues. We would have no experience of our movement'. Of particular interest to the topic of movement are the senses of proprioception, kinaesthesia and touch. Proprioception and kinaesthesia and their interrelationship are defined differently in the literature. However, for the purposes of this review, we use the following understandings. Proprioception is the sense of knowing where parts of the body are in space without having to look at them and includes the sense of balance (Brodie, 2021; Hanscom, 2016). Kinaesthesia is the awareness of the movement of one's body (Sheets-Johnstone, 2011, 2018, 2020). Kinaesthesia and tactility are the earliest sensory systems to develop, developing prenatally (Fearn and Troccoli, 2017; Hanscom, 2016; Jackson and McGlone, 2020; Sheets-Johnstone, 2020), and evident in the play of infants.

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[89] See section 3.5.1.

Touch

Movement and touch are inseparable (Fearn and Troccoli, 2017). Touch is connected to healthy physical, cognitive and emotional growth. Jackson and McGlone (2020) offer a neurobiological reason for this, to be found in certain mechanosensory nerves in the skin called C-tactile afferents, or CTs. Many forms of play involve touch between human bodies, for example, rough and tumble play, tickling, games of tag (Jackson and McGlone, 2020; Panksepp, 2010) and pretend play (Roberts *et al*., 2018). When stimulated (for example, through cuddling and playing) CTs generate neurochemical rewards, what Panksepp (2010) terms 'joy'. The joy of playing means children seek out such contact again, in the process developing attachments, a range of social skills and affective neural networks that can help against depression (Jackson and McGlone, 2020; Panksepp, 2010). Play can be a therapeutic tool to address early attachment problems through movement and touch, for example, 'embodied experiences of sensory play and messiness, rhythmic play and ritual, and dramatic play and mimicry' (Fearn and Troccoli, 2017, p. 107).

Touch is an *immediate* sense, in that it is experienced directly: we touch something and we feel it, we are touched by it (Fearn and Troccoli, 2017; Sheets-Johnstone, 2011). Prior to language, the infant experiences and comes to know the world through touch and movement (Sheets-Johnstone, 2011). Touch is central to play in that even if children are not touching each other, they will be in touch with surfaces and objects, moving across them or manipulating them, as well as other experiences such as pressure, temperature, vibration, pleasure or pain (Hanscom, 2016). Movement and touch are embedded in play such as jumping in puddles, rolling down hills, playing in the rain, jumping and climbing sand dunes, as well as deliberately designed sensory toys (Prendiville and Fearn, 2017) or loose parts[90] (Bundy *et al*., 2008; Gibson *et al*., 2017). Some children respond differently to touch, either by being over-sensitive or under-sensitive (Hanscom, 2016).

The location of touch as a sense is the whole skin, not just the hands, although receptors are unevenly distributed (Prendiville and Fearn, 2017). Touch through different areas of the skin has different effects. For example, going barefoot allows the soles of the feet to touch the surface of the ground, often uneven, helping to develop good gait and balance, due to connections with the vestibular system (Hanscom, 2016).

Panksepp's affective neuroscience (Panksepp, 2010; Panksepp *et al*., 2012) identifies PLAY as one of at least seven primary-process emotional networks in the subcortical regions of the brain. These systems generate feelings of reward or punishment, and animals (including humans) actively seek out those that offer rewards. Panksepp suggested that the main sensory system underpinning rough and tumble play was touch (Kellman and Radwan, 2022). His studies of rough and tumble play in rats led him to conclude that such play can promote 'the expression of various neurotrophins' (Panksepp, 2010, pp. 541-542), suggesting that it has anti-depressant effects.[91]

Proprioception and the vestibular system

Movement and the senses are the key to preventing and/or addressing a number of problems increasingly apparent in children, from poor balance, inability to cope in new situations, poor attention and/or concentration, or not being able to sit on chairs (posture) (Brodie, 2020; Hanscom, 2016). Much of this is to do with the vestibular system and the sense of proprioception. The vestibular organs are found in the inner ear and work together with the vision, auditory and somatosensory systems and with graviceptors to feed sensory information to the brainstem, cerebellum and cortex, playing a key role in motor co-ordination, balance, gaze stabilisation during head movements, postural stability, heart rhythm and blood pressure, spatial orientation and an awareness of one's movements, attention, memory, concentration, as well as cognition and emotion regulation (Hecke *et al*.,

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[90] 'Loose parts' is a term coined by artist Simon Nicholson (1971) used to define indeterminate, non-prescriptive, natural, recycled or waste materials that children can play with in any manner of ways.

[91] See section 3.5.3.

2021). These neural systems and processes, together with others controlling movement are all likely to influence and be influenced by play (Jackson and McGlone, 2020, p. 28).

Proprioception is necessary for and developed through movements typical in playing, for example, swinging, balancing, skipping, tree climbing, rolling down hills, spinning round, hanging upside down, as well as pushing and pulling things, dragging materials around, using different sides of the body, knowing how hard to hug or tag when playing, or engaging in rough and tumble play (Fagen, 2011; Goddard Blythe, 2017; Hanscom, 2016). Play can enhance proprioception in a pleasurable way (Eberle, 2014). These disequilibrial, balance-disturbing actions enjoy considerable potential functional significance (Fagen, 2011). As Hewes (2014, p. 289) notes:

'Play works in fundamentally paradoxical ways, and it is not always what it seems. Young children have a preponderance for dizzy play, most obvious in their persistent pursuit of vertigo – spinning, whirling, swiveling, twirling, somersaulting and tumbling – turning the world upside down and inside out, and creating considerable tumult in the process … Physically, this kind of play results in an increased sense of spatial awareness, vestibular and proprioceptor strength, physical coordination and balance. What is fascinating is that balance is strengthened through the deliberate exploration and experience of imbalance.'

Moreover, stimulation of the vestibular system, as with touch, engenders positive affect (Miller *et al*., 2017; Rajagopalan *et al*., 2017), evident in the squeals and screams of children engaging in such disequilibrial forms of play (Eberle, 2014; Work-Slivka, 2017). Rajagopalan *et al*. (2017) suggest the vestibular system, through its connections with the limbic system, can play a role in emotion regulation, particularly in relieving stress. The following section explores in more depth the relationship between play and affect/emotion.

3.7 Playing with affect/emotion

Affect, emotions and feelings are often seen as the opposite of rational thought, perpetuating the classic body/mind duality so prevalent and enduring in minority world thinking. Unruly bodies (nature and passion) need to be kept in check by disciplined minds (culture and rationality) (Lester and Russell, 2014b; Rosen, 2015a, 2015b). Such a division between 'good' and 'bad' play has underpinned much modern play theory, with 'positive' play being promoted above the excess, nonsense and nastiness of play. Sutton-Smith (2017, p. 67) includes such foundational theorists as Kant, Schiller, Groos, Spencer, Freud, Winnicott, Piaget, Carse, Caillois and Schechner in this group. In addition, the legacy of behaviourism, which asserted that only what could be seen and empirically tested could be valid, has meant that affect, emotions, feelings, appetites and so on have been relatively absent in behavioural studies (Burghardt, 2019).

Yet evolution, biology, neuroscience, social science, psychology, philosophy and other disciplines argue that rational thought and action are not possible without the sensory information from movement, feelings and emotions (Damasio, 2018, 2021; Marks-Tarlow, 2010; Panksepp, 2010). The relationship between bodily feelings, emotions, thought and action/movement is not one of opposition and duality but of indivisibility. Play itself can be understood as an 'affective/motivational system' (LaFreniere, 2013, p. 192), evident in 'children's struggles with emotion management in the sometimes hurly-burly chaos' of early years settings and playgrounds (*ibid*., p. 197). Affect, emotions and feelings are terms that are often used interchangeably and sometimes distinguished and defined in different ways across disciplines (Burghardt, 2019; Damasio, 2018; Russ, 2014; Stanley, 2017; Tembo, 2021b). From a neuroscientific perspective, Damasio (2018) uses 'affect' as an umbrella term for 'the world of emotions and feelings' (p.3), and this is largely supported in psychological research (Russ, 2014) and ethology

(Burghardt, 2019). In posthuman and new materialist approaches, broader conceptualisations use affect in a relational sense (that is, emerging from encounters rather than something possessed by individuals), including the ability to affect and be affected by the world, seeing affect as a dynamic force, separating it from emotions and placing it beyond representation in language (Harker, 2005; Johansson and Hultgren, 2016; Lester, 2020; Leyshon, 2016; McPhail and Huynh, 2016; Stanley, 2017).

Damasio (2018, 2021) makes a clear distinction between emotions and feelings. Emotions are about actions (e-motions), connected to movement as discussed in the previous section and to motivation. For example, fear, as an emotive response to a stimulus, results in bodily changes (such as heart rate, breathing, cold sweats). Feelings are the mind's awareness of those bodily changes, working in concert, and are 'the mental expression of homeostasis' (Damasio, 2018, p. 6). Homeostasis is the self-regulatory process that maintains a 'steady state' for organisms in the face of internal or external fluctuations and changes and ensures their survival. Yet homeostasis is far from 'steady' or static (Billman, 2020; Nirmalan and Nirmalan, 2020; Rose, 2012); as Damasio (2018, p. 25) says, homeostasis is dynamic and 'ensures that life is regulated within a range that is not just compatible with survival but also conducive to flourishing'. In other words, 'The desire to be well permeates life: children (and adults) constantly move towards that which offers the chance of life being better' (Lester, 2020, p. 92).

Perhaps play can be considered in this light. It is often asserted that play generates positive affect, or that positive affect is a key characteristic of play (Ahloy-Dallaire *et al*., 2018; Bateson, 2015; Burghardt, 2011; Eberle, 2014; Held and Špinka, 2011; Johnson and Dong, 2019; Siviy, 2016; Sutton-Smith, 2017; Whitebread, 2018). Children themselves often associate playing with positive emotions (Brockman *et al*., 2011; Goodhall and Atkinson, 2019; Howard *et al*., 2017; Moore and Lynch, 2018), although there are also critiques of adults' unproblematic association between play and joy.[92] From this perspective, play is rewarding, and children will seek it out to experience that reward, to experience a state of flourishing, a greater satisfaction in being alive (Lester, 2020; Sutton-Smith, 2017). However, whilst acknowledged as a key aspect of playing, positive affect, together with play's irrationality and frivolity, is less often included in policy and popular statements of play's importance, unless such aspects can be linked to more rational instrumental benefits (Lester, 2020; Sutton-Smith, 2017; Woodyer *et al*., 2016).

3.7.1 The benefits of positive affect

Pleasure is not often considered as an important instrumental benefit or 'outcome', but studies show just how central such positive affect is to wellbeing, health and adaptiveness, both for the time of playing and beyond (Burgdorf *et al*., 2017; Coffey *et al*., 2015; Fredrickson, 2013; Granic *et al*. 2014; Panksepp, 2010, 2016; Tugade *et al*., 2021).

Sustained positive affect itself can reduce anxiety, build resilience to depression and have other health benefits (Burgdorf *et al*., 2017). Fredrickson's empirically tested broaden-and-build theory posits that fleeting and precarious moments of pleasure broaden the flexibility and range of spontaneous thought, perceptual and action responses to the world and can build personal affective, cognitive and behavioural resources that can be drawn on later (Fredrickson, 2013; Tugade *et al*., 2021). Negative emotions induce quick action responses, both in autonomic nervous systems (such as heart rate, faster breathing) and motor actions such as fleeing or fighting. Positive emotions, on the other hand, offer adaptive benefits over longer timescales. One example given is of the positive emotion of joy, which, like Panksepp (2010, 2016), Fredrickson connects to play. Joy creates the urge to play. Social play broadens social interactions and can build more lasting bonds and attachments (Tugade *et al*., 2021). In addition, play can generate other positive emotions in Fredrickson's list of ten, for example, amusement (often involving nonserious incongruity), interest, inspiration, awe, hope, pride, perhaps even serenity

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[92] See section 3.3.1.

(contentment), gratitude or love. Broaden-and-build benefits from the full range of positive emotions including experiential learning, creativity, resilience, optimism and motivation (Fredrickson, 2013; Tugade *et al*., 2021). Furthermore, such positive experiences build personal resources, including the motivation to engage in actions that promote positive feelings, creating an upward spiral and support Sutton-Smith's notion that 'play prepares you for more play, and more play offers a greater satisfaction in being alive' (Lester and Russell, 2010, p. 13), with more personal resources to draw on when facing the vagaries of life.

As an example, Work-Slivka (2017, p. 46) offers a delightful vignette of two adolescent girls gleefully and excitedly play fighting over 'Henry' (a vacuum cleaner):

'Abruptly, the girls bounced up from their chairs in fits of giggles, Aria trailing Boo … Boo cried, "I love you, Henry!" Feet bare, Aria and Boo raced toward Henry … They threw their bodies on top of the dusty vacuum cleaner and each other, laughing, struggling to seize Henry, and arguing possessively. Wrestling, they shouted back and forth in a playful exchange. Boo knelt and draped her torso on top of the vacuum cleaner, hugging it to her chest. Aria squatted next to her, vigorously prying Boo's arms away from Henry.'

The girls prolonged the positive affect by writing the scenario up as a play and then enacting it, together with an additional plot twist where one of the girls is thrown down the stairs and dies.

In another example, Woodyer *et al.* (2016, p. 28) foreground the embodied sense of vitality and affective attunement in the generation of force fields in the magic space of Ethrole Castle:

'She demonstrates how to generate force fields with her friend. They stand facing each other, arms slightly outstretched in front of their torsos. They begin to mirror each other's movements as they move slowly from side to side in accord to Daisy's instructions:

"Side, back…"

"[My force field's] not strong enough."

"We need to do it for longer."

"We need to wait till there's a tingle in our fingers."

They repeat the process, concentrated faces giving way to expectant expressions. There's a sense of anticipation in the room, felt not only by the players but also the observer. Voices begin to rise in pitch and volume:

"I'm starting to get it!"

"My face is red!"

"Okay ready, I've got it! Ready?"

'Yep"

"POW!"

As Daisy's friend extends her arms toward her in one swift movement she falls back against her bed with enough force to make an observer wince. Laughing, she exclaims,

"Aargh, you got my left leg."'

Positive affect is also associated with other aspects of wellbeing, such as life satisfaction, better health and longevity (Fredrickson, 2013; Coffey *et al*., 2015). Much of the research into, for example, adverse childhood experiences (ACEs), focuses on the lasting effects of toxic stress and negative affect (Center on the Developing Child, 2018; Hughes *et al*., 2017; Winninghoff, 2020).[93] Research by Coffey *et al*. (2015) investigated negative and positive affect in infants and adolescents and their relationship to adult wellbeing, gathering data as a part of the Fullerton Longitudinal Study from 129 children at one and a half years old, sixteen years and twenty-nine years of age. Infant and adolescent affect were measured in terms of temperament, and adult wellbeing was measured across three indicators of life satisfaction and workplace, hope and optimism. They found that infant positive affect predicted adult wellbeing across all three indicators and that adolescent positive affect, independently of infant wellbeing, predicted adult life satisfaction. As Granic *et al*. (2014, p. 72) say, in the context of the benefits of video games, 'positive emotions are thus the bedrock for wellbeing'.

3.7.2 Affective neuroscience and play

Panksepp's affective neuroscience is briefly introduced in section 3.5.3 above and is revisited here to consider in more depth its contribution to understanding the relationship between playing and wellbeing. Panksepp lists PLAY as one of at least seven primary process emotions found in the ancient (in evolutionary terms) subcortical areas of mammalian brains (Panksepp, 2010, 2016; Panksepp and Panksepp, 2013; Panksepp *et al*., 2012). The others are SEEKING (desire/reward), RAGE (anger), FEAR (anxiety), LUST (sexual desire), CARE (nurturance) and PANIC (to do with separation, sometimes called GRIEF). PLAY equates to a form of social joy.

One function of such play may be to promote successful social interactions (including social bonding and learning social limits) and may be linked to some higher social brain functions (Jackson and McGlone, 2020; Panksepp and Panksepp, 2013). PLAY, as one of the primary emotional processes, provides children with powerful 'genetically ordained attentional, emotional, and motivational tools' (Panksepp, 2008, p. 62) in the subcortical areas of the brain that help to develop the more epigenetically dependent areas of the neocortex, particularly in terms of developing social sensitivities and empathy. It should be noted, however, that there is disagreement about the neural processes of emotions (see, for example, LeDoux and Brown, 2017).

Panksepp (2008) suggests that there may be a link between fewer opportunities for children to engage in physical and social play such as rough and tumble and the increasing diagnoses of ADHD. Whilst acknowledging the reality of ADHD, he suggests that the increase in diagnoses may be culturally influenced, and that creating opportunities for young children to play may reduce both the chances of diagnoses of ADHD and of depression later in life. PLAY can promote the expression of certain neurotrophins (for example, brain-derived neurotrophic factor, BDNF) that can have anti-depressant effects (Panksepp, 2010). Studies on the neurochemistry of social play in rats show that opioid, cannabinoid, dopamine and noradrenaline have various effects on the motivation to play and on its emotional and cognitive aspects (Trezza *et al*., 2019), helping to understand the intrinsic motivation to engage in PLAY as a primary process emotion (di Domenico and Ryan, 2017).

3.7.3 Play as emotional survival

In his theory of play as emotional survival, Sutton-Smith (2017) takes a slightly different approach to basic primary emotions from that offered by Panksepp's affective neuroscience, although there are some meeting points. Panksepp's research concentrated mostly on juvenile rats' rough and tumble play,[94] and so may not be applicable across play's many varied forms and the diversity of players. Sutton-Smith, however, not only considers the play

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[93] See chapter 2, section 2.3.

[94] See section 3.7.4 for a more detailed review of rough and tumble play.

of children but of adults too; such a perspective may be helpful in thinking beyond what he terms the 'progress rhetoric' (Henricks, 2017), the idea that play's main purpose is to help children progress and develop the skills needed as adults. Whilst not rejecting this function for the play of the young, he asserts it is just one of several rhetorics in the study of play.

In broad terms, Sutton-Smith proposes that playing mediates – and 'lives in the space in between' (Henricks, 2017, p. 13) – the raw, ancient primary emotions and the more socially and culturally modulated secondary emotions. The identification of primary emotions varies, ranging from four to ten emotions (TenHouten, 2017), many identifying the six that Sutton-Smith uses. These are: shock, anger, fear, disgust, sadness and happiness. Primary emotions are seen as fast, reflexive responses that aid survival. Secondary emotions, sometimes presented as combinations of primary emotions (TenHouten, 2017), are more reflective, more considered and more nuanced, and include pride, shame, love, loneliness, curiosity, disappointment, optimism.

Sutton-Smith suggests there is an 'ancient intimacy' (2017, p. 70) between the primary emotions and forms of play. They are both the motivator for and the expressive content of many forms of play. Originally, their function was to enhance organisms' chances of survival; with children's play, this is less to do with feeding, fighting or territory and more reflective of contemporary life's social and cultural equivalents. In play, children may appear to imitate real life, but there are differences. Play both reflects and sets itself apart from its cultural context. It both mimics and mocks the cultural, social and existential struggles of daily life. In play, alternate realities can be created. Primary emotions are evoked both to experience their vitality and to control and triumph over them: 'play helps transcend the unpleasant chaos inherent in the unfettered expression of our primary emotions' (Sutton-Smith, 2017, p. 91).

Each primary emotion can be conjured up in playing, sometimes in combination, and are held in check through the rituals, rules and conventions of play, themselves the domain of the secondary emotions. For example, anger can be expressed in forms of competitive play, rough and tumble play, some computer games, and other forms of what Sutton-Smith (2017, p. 167) calls 'ludic aggression', the less clearly regulated, often more covert, forms of play such as trading humorous insults, rhymes or songs, or pulling down trousers and other forms of horseplay. Fear can be experienced and conquered in risk taking, in games of chase, or in telling ghost stories. Disgust is evident in children's rhymes, jokes and other forms of play that mock bodily functions and offend the senses, forms of play that Sutton-Smith terms 'deviant' and which can bring censure from adults, but that too is part of their attraction, playing with taboos. The examples Sutton-Smith (2017) offers for shock are teasing and hazing (initiation rituals), forms of play that entail dominance and are not necessarily enjoyable for all concerned. Tamer (and younger) examples might be peek-a-boo, hide and seek, and creeping up on someone, as well as traditional games such as Blind Man's Bluff and What's the Time Mr Wolf?.

In summary, Sutton-Smith (2017, p. 241) concludes that 'play promotes the immediate liveliness of being alive and keeps us emotionally vibrant and capable of joy in an otherwise hostile and scary world'. In all of these forms, Sutton-Smith sees a 'dialudic' tension between play's evolutionary instincts and reflexes on the one hand and on the other, modern cultural and cognitive learning. The rules, rituals, conventions and metacommunications of play (the play frame) allow players to experience the vitality of the primary emotions generally without the consequences they might bring if expressed in unregulated form outside of play. Being a good player requires playing by whatever the rules might be of that particular form, otherwise no-one will want to play with you. Nevertheless, the frames that contain the raw primary emotions are not failsafe; playing at and with primary emotions can easily spill over and players can get hurt, physically and emotionally. The more volatile emotions of fear, anger, shock and disgust are more likely to spill over, but if this happens, the secondary emotions of shame or guilt, or indeed of pride and empathy may act as regulators to rein emotions back, but not always.

The power of the emotional force of play is recognised by Panksepp (2008, pp. 60-61) too, which he acknowledges:

'rapidly takes children to the edge of their social-emotional knowledge, where they must re-negotiate behavioral options in order to get the maximum joy out of life. These are the moments when bullies may rule and especially bad things may happen.'

He suggests, particularly in rough and tumble play, that there may be times when 'sage advice from elders' (*ibid*.) may help to create moments that build social bonds, caring tendencies and even empathy. However, LaFreniere (2013, p. 200) promotes the value of children being able to sort out the conflicts that typically arise during rough and tumble play for themselves, suggesting that 'programming out such conflicts by relentless adult supervision and interference in children's play may actually be a disservice'.

3.7.4 Play and emotion regulation

The idea that play provides children with relatively separated and therefore 'safe' opportunities to experience and play with volatile emotions such as anger, fear and surprise can be found in the literature beyond Sutton-Smith's specific theorising on play as emotional survival. More broadly, this is linked to the development of emotion regulation, particularly in middle childhood (Colle and del Giudice, 2011), and to stress response systems, both of which are linked to resilience, although these individual processes should not be considered in isolation from social and cultural contexts (Diaz-Diaz, 2022; Masten, 2014, 2018, 2019).[95]

Emotions, as multifaceted and embodied responses to situations, are malleable and dynamic, in that despite being imperative and demanding attention, they compete with other possible responses (Gross, 2008). It is this that allows for regulating of emotions, understood as when people try to influence how they express or experience emotions (Gross and Cassidy, 2019). For adults, this can happen through five families of emotion regulation strategies:

- selecting situations that give rise to the emotions we want to experience;
- modifying the situation (for example by making specific resources available);
- redirecting attention (often seen in distraction strategies employed to help children);
- cognitive change and reappraisal (changing how we think about situations);
- modulating emotional responses (Gross, 2008, 2015).

The perception and valuation of emotions and whether they need regulating or not can happen at varying levels and is not only a conscious cognitive process (Gross, 2015; Gross and Cassidy, 2019). Strategies include both what people can do for themselves, and what people can do to help others regulate their emotions.

For typically developing children, the ability to recognise and regulate emotions and their expression improves as they mature, in line with culturally influenced acceptable expressions of emotion (display rules) (Gross and Cassidy, 2019; LaFreniere, 2013). Emotion regulation as a concept (as with other forms of self-regulation) is

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[95] See section 3.2.1 and section 3.7.5.

rooted in homeostasis and as such concerns the ability to maintain a dynamic equilibrium (Foley, 2017). This differentiates it from emotion control: although suppression may be one strategy for emotion regulation, it is important to acknowledge that seeking and experiencing high states of arousal is as much a part of regulation as suppression. Play affords a relatively safe frame for experiencing and practising the regulation of emotions (Foley, 2017; Sandseter et al., 2022).

Emotion regulation is separate from and closely linked to other forms of self-regulation and executive function (for example, attention, planning and behaviour) as well as to other social cognitive skills such as emotion recognition and theory of mind (Slot et al., 2017; Zhao and Gibson, 2022). As such, it is an important aspect of peer play and the ability to form friendships (Zhao and Gibson, 2022). Colliver et al. (2022) cite longitudinal studies linking self-regulation (including emotion regulation) to later academic success, health outcomes and broader prosocial outcomes.

Studies into the relationship between play and emotion regulation have tended to focus on three forms (although not exclusively): social/rough and tumble play (drawing extensively on animal studies), pretend play (mostly in the early years) and video games. These three forms are reviewed below.

Rough and tumble play and emotion regulation

Rough and tumble play is defined differently across the literature, but generally entails mock fighting in a playful context, with typical moves being wrestling, grappling, tumbling and pinning. The intention is not to hurt but to keep the play going, and the play is accompanied by signs of positive affect, reciprocation and continued social connections (Garcia et al., 2020; Lindsey and Colwell, 2013; Smith, 2015; Veiga et al., 2022). Whilst it may resemble aggression, it emanates from the motivation for affiliation rather than competition and dominance, although this may switch in adolescence (Garcia et al., 2020). Studies largely (but not exclusively) show it has considerable benefits, including building social bonds and supporting the development of emotion regulation and stress response systems.

Neuroscientific studies of rats' rough and tumble play largely conclude that it is essential for the development of emotion regulation as displayed through social skills (Pellis and Pellis, 2017; Pellis et al., 2014; Vanderschuren and Trezza, 2014). Such studies investigate the neurobiology, neurochemistry and neural mechanisms both of play and of the deprivation of play. Rough and tumble play enhances cortical neural circuits involved in the regulation of cognitive and emotional processes relating to social behaviour (Pellis and Pellis, 2014). Play fighting could be described as a form of 'restrained competition' (Pellis and Pellis, 2017, p. 362), with the requirement to continually balance competition and co-operation to keep the play going and to build social bonds. This means players continually monitor their own and their partners' actions and emotion displays (La Freniere, 2011; Pellis and Pellis, 2017).

Rough and tumble play both requires and provides the opportunity to practice emotion regulation and to balance egocentrism and co-operation. It builds bonds of friendship, which can endure even when dealing with conflicts that often arise, particularly in preschool children (LaFreniere, 2013).

'The more deeply we study social interaction during children's free play, the more important affective expression and emotional regulation appear. The central role of emotional control and expression is most apparent in the free flow of behavior; that is, in chains of initiations, responses, adjustments, shared delight, protests, apologies, modifications, new directions, and further shared feeling' (LaFreniere, 2013, p. 197).

Although the risk of play fighting tipping into aggression is small (Smith, 2015), it is ever present; because of this, players need to abide by the rules and regulate the force used to avoid escalation (Palagi, 2018; Pellis and Pellis, 2017). Indeed, it is significantly more likely that rough and tumble play involving those less able to read and respond appropriately to social signals will tip into aggression (Smith, 2015). In the exuberance of play fighting, players are often over-enthusiastic in their moves, and partners have to assess quickly whether such excessive force was accidental and how to respond. In this way, play fighting represents a balance between danger of real harm and safety of affiliation and the play frame. Neuroscientific research suggests that rough and tumble play may help develop impulse control and stress responses to novel situations.[96] The range of neural processes involved in assessing and responding to the balance between harm and affiliation can be found in the sympathetic and parasympathetic functions of the vagal nerve (Gleason *et al*., 2021; Kellman and Radwan, 2022), and also in the sub-cortical mid-brain thalamus and striatum (Kellman and Radwan, 2022). The balancing of danger and safety, of competition and co-operation, and the unpredictability and temporary loss of control in this form of play also affects the development of the cortex involved in executive function (Pellis and Pellis, 2017; Pellis *et al*., 2014).

In typically developing human children, rough and tumble play emerges at about two years of age (Lindsey and Colwell, 2013), peaks at age seven (Garcia *et al*., 2020), and declines after about ten years of age (Jackson and McGlone, 2020; StGeorge and Freeman, 2017), although there are variations. Adolescent rough and tumble play may have different motivations, manifestations and functions, possibly more to do with affiliation within social groups, social dominance with those outside, and also with courtship (Garcia *et al*., 2020; Smith, 2015). Generally, although not exclusively, boys tend to engage more in rough and tumble play than girls, with the links being made to levels of testosterone and androgens in both boys and girls who do engage in rough and tumble play (Jarvis, 2010). However, it may be that most studies on children's play have been in mixed settings, whereas girls have been shown to engage in rough and tumble play in situations where there are no boys (Adams, 2013; Work-Slivka, 2017). Pellis and Pellis (2009) suggest that boys have more need to engage in rough and tumble play as a 'tool for refining social competence', because hormonal influences (likely not to be contingent on experiences) on pre-frontal cortex development mean that girls' brains are already more socially competent.

Many studies on children and rough and tumble play investigate father-child dyads with preschool children (Bocknek *et al*., 2017; Fletcher *et al*., 2013; StGeorge and Freeman, 2017). In their review of 16 studies, StGeorge and Freeman (2017) found a strong positive correlation between father-child rough and tumble play and social competence and emotional skills with a weaker association with self-regulation. Bocknek *et al*. (2017) found that physical play (slightly broader and including rough and tumble) between fathers and young children found a curvilinear relationship, in that moderate amounts supported the development of self-regulation, but not low or excessive amounts. For children whose mothers reported were more emotionally reactive, the results were especially robust. However, the quality of the rough and tumble play matters, according to a study by Veiga *et al*. (2022), who found that rough and tumble play where children dominated and that were accompanied by negative emotions (for example, where children get angry or where the episode ends in tears) was associated with emotion dysregulation. Lindsey and Colwell (2013) found positive associations between peer-to-peer rough and tumble play and emotion regulation, but less so with two other aspects of affective social competence (emotional expressiveness and emotion knowledge).

The studies reviewed above are all with very young (preschool) children, where emotion regulation is less well developed than with older children (Palagi, 2018; Veiga *et al*., 2022), particularly the more reflective aspects of executive function (Masten, 2014). In addition, early years professionals and teachers can often misread and

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[96] See also section 3.7.5.

misunderstand this form of play, mistaking it for real aggression, or being concerned that it may tip into real aggression (Hewes, 2014; Jackson and McGlone, 2020; Siklander *et al*., 2020), although this is not always the case (Storli and Sandseter, 2017). These factors suggest that study results should be read with caution.

There is a paucity of recent studies of peer-to-peer rough and tumble play in middle childhood. A study by Garcia *et al*. (2020) on rough and tumble play in adolescents (nine to sixteen years) found that, particularly for twelve- to thirteen-year-olds, children who had a high level of conduct disorders and engaged in other risky behaviours (alcohol, drugs, high-risk sports and reckless two-wheeled activity) were significantly more likely to engage in rough and tumble play. The authors were hesitant to offer reasons, claim causal relations in either direction, or to conclude that the emotional and social benefits of rough and tumble play for younger children no longer held in adolescence. Indeed, post-pubescent rough and tumble play in non-humans has been linked to affiliation rather than competition or aggression (Pellis and Pellis, 2017; Vanderschuren and Trezza, 2014). They did suggest, however, that rough and tumble play could provide a useful frame for engaging in aggression despite many other adolescents having abandoned it, and that adolescents with poor impulse control might be more likely to be drawn to rough and tumble play. It may also be that less socially skilled and more aggressive adolescents had trouble understanding rough and tumble play in their early years (Jackson and McGlone, 2020).

Pretend play and emotion regulation

As with other categories of play, pretend play is defined in various, sometimes contradictory, ways in the literature. It is largely understood to be an 'as if', nonliteral approach to the world, where objects, people and narratives can become something other than they are outside of play and where players create alternative worlds (Cabrera *et al*., 2017; Hoffman and Russ, 2012; Lindsey and Colwell, 2013; Nicolopolou, 2015; Rao and Gibson, 2019, 2021; Weisberg, 2015). Massumi (2014) suggests that pretend play is not 'as if', in the sense of imitation, rather it is a way of giving life and vitality to the forms or events that arise in pretend play. Playing, in this sense, is a 'creative line of flight' (p. 86) from everyday life and the 'life-crushing weight of the imperative to conform' (p. 87). However, memories of childhood pretend play from autistic writers' autobiographies describe forms of pretend play that involved hyperreal props (such as real textbooks for playing schools) and a replaying of familiar everyday scenarios that made them 'better, more orderly, and more predictable' (Davide-Rivera, 2012, cited in Conn, 2015, p. 1199).

Sub-divisions of pretend play can encompass symbolic play, where one object is used to symbolise something else (Lillard *et al*., 2013; Lindsey and Colwell, 2013); fantasy play, where players enact imagined scenarios; and sociodramatic play, where players take on the roles of others (Lindsey and Colwell, 2013). These categories can overlap, as can pretend play with other forms of play such as locomotor, object or rough and tumble (Weisberg, 2015). During pretend play in dyads or groups, players often spend considerable time negotiating the frame, the narrative and roles both before and during enactment (Gibson *et al*., 2020). Sociodramatic play may both mimic and mock children's everyday experiences (Sutton-Smith, 2017), as in this vignette from Lester (2020, pp. 96-97):

'Two children … are playing a make-believe domestic game in which the girl, evidently taking the dominant role in deciding the play, is the "mother" and the boy plays her "husband". The girl issues a series of instructions to her husband – time to get up, come and eat your breakfast, now you go off to work – and the boy follows these leads (a shared desire to affect and be affected). But as the "husband" walks off the girl shouts to him, "And then you die", which provokes a look of astonishment on the boy's face accompanied by a plea, "Do I have to?" At this point the girl responds, "Alright then, you just have an accident and you have to go to hospital". The boy is happier with this instruction and falls to the floor, screaming in pain and holding his leg at which point the game has changed from domestic roles to a surgeon/patient scenario as the girl prepares to saw off his leg.'

Such examples show how the 'real' and the 'imagined' are intertwined rather than opposites (Joelsson, 2022). For typically developing children, pretend play usually emerges in the second year of life and evolves as children develop. It is generally thought to peak at around seven or eight years of age, but there are disagreements on this, with some evidence that it continues beyond, with different manifestations (Rao and Gibson, 2019), including into adulthood (Carlson *et al.*, 2014). Pretend play is at its peak at the same time that typically developing children develop a range of executive function skills including emotion regulation (Carlson *et al.*, 2014; Hoffman and Russ, 2012; Rao and Gibson, 2019), which has led many to surmise a connection between the two. A key question for researchers is why, at a point in their lives where children are trying to make sense of the real world, they expend so much time and energy creating unreal worlds (Ma and Lillard, 2017; Walker and Gopnik, 2013).

Much play research, particularly in the early years, privileges pretend play over other forms of play (Göncü and Vadeboncoeur, 2015; Smith, 2010). Such research has been critiqued for drawing on a limited definition and conceptualisation of play that sets a normative benchmark, positioning children not from Western cultures or middle-class communities (Göncü and Vadeboncoeur, 2015), disabled children (Goodley and Runswick-Cole, 2010) and neurodivergent children (Doak, 2020) as deficient and in need of interventions.

Pretend play provides the opportunity for children to play with, express and resolve strong emotions in a relatively safe frame (Sandseter *et al.*, 2022). It requires some regulation of those emotions, especially if playing with others whose emotional expressions may disrupt the expected course of the play episode. In addition, the frame, which requires taking the pretence seriously, means that players may need to regulate desires they may feel in a parallel situation outside of the frame to keep the play going (Rao and Gibson, 2019; Sutton-Smith, 2017).

Socio-dramatic play requires players to take the perspective of others and to inhibit behaviour to stay in role (Lindsey and Colwell, 2013; Petersen and Holodynski, 2020). In both socio-dramatic and fantasy play children can feel some sense of control over the events and worlds they create. This can involve contradictory emotions in that they may be 'playing out' a strong emotion and simultaneously experiencing the emotion of pleasure or a sense of power. The incongruity sometimes gives rise to laughter and humour (Rao and Gibson, 2019). Foley (2017, p. 242) highlights the complexity of demands on children during play:

'[I]n play, children are in a relatively constant flow of shifting attentional focus and selection, starting and stopping, planning and grading movement, modulating states of arousal and activity level, changing vocal volume, responding to social bids, problem solving, and so forth. The demand on children-in-play to adjust, process, and respond to such a complex and dynamic array of stimuli and experiences invests play with abundant opportunities for the practice and acquisition of self-regulation.'

Several studies find a strong correlation between pretend play and emotion regulation (Gilpin *et al.*, 2015; Hoffman and Russ, 2012; Lindsey and Colwell, 2013; Slot *et al.*, 2017; Thibodeau-Mielsen and Gilpin, 2020), with variations across gender, class and children with high or low impulsivity and/or anxiety (Rao and Gibson, 2019).

However, researchers urge caution in interpreting results. This is partly due to the huge variability in the concepts of pretend play and emotion regulation, variation in instruments used to measure these, limited variation in cultural context, few longitudinal studies (Rao and Gibson, 2019), inability to capture genuine pretend play (Bergen, 2013), as well as a preponderance of correlational studies, lack of using blind/naïve experimenters, lack of rigour in statistical approaches and poor control conditions (Lillard *et al.*, 2013). Some studies rely on adult reports of both playfulness and emotion regulation (for example, Gilpin *et al.*, 2015; Thibodeau-Mielsen and Gilpin, 2020). Others are experimental, relying on short episodes of playing under laboratory conditions

(for example, Hoffman and Russ, 2012; Petersen and Holodynski 2020); despite the assertion that although such experiments may seem as if they are engineering play, and the context and resources will inevitably affect how children play, play still arises spontaneously (Foley, 2017). Pretend play can vary in its quality, frequency, duration, sophistication, imagination, creativity and enjoyment, making generalisations about its benefits problematic (Cabrera *et al.*, 2017).

Fundamentally, it is difficult to know the direction of causality; that is, whether pretend play helps children to develop emotion regulation, or whether children with better emotion regulation engage in more pretend play and can sustain longer and more sophisticated pretend play episodes (Gilpin *et al.*, 2015; Hoffman and Russ, 2012; Lindsey and Colwell, 2013; Thibodeau-Mielsen and Gilpin, 2020). In their systematic, detailed and influential review of studies into the relationship between pretend play and a range of areas of children's development over a 40-year period, Lillard *et al.* (2013) highlight a range of methodological problems and conclude that although there could be a causal relationship, there is little evidence that pretend play has a crucial or exclusive role in developing emotion regulation. They suggest it is equally likely to be equifinal (that is, one of several possible influencers on development) or epiphenomenal (that other causal factors may be characteristics of children, other adults or the environment that accompany pretend play rather than the play itself). However, the framework for their review has been critiqued (Harris and Jalloul, 2013) and more recently, Lillard (2017) cautiously accepts that one of the functions of pretend play may be emotion regulation, although questions remain.

Video games and emotion regulation

Adult concerns regarding children's use of video games have included the possibility of addiction, the impact of violent games, hidden in-game costs, children's safety and children's privacy (Gottschalk, 2019; Livingstone *et al.*, 2017; Robertson, 2021). Alongside these understandable and sometimes realised concerns for children's physical and mental wellbeing, a growing body of research has considered the benefits of video games for players' wellbeing including 'inducing positive emotions, improving mood and decreasing stress, contributing to emotional stability, and promoting engaging, self-actualizing experiences such as psychological flow' (Villani *et al.*, 2018, p. 86).

In talking to children about why they value video games, Robertson (2021, p. 34) says:

'[T]hey tell me how good it is to escape the day for a while and find some order. They light up, discussing the excitement of thinking deeply about new strategies and then being able to perfect them. Their friends come up in these chats in the same way they do when describing the latest playground game

What is clear from this example is the vitality and the parallels with non-digital play. In their systematic review of research into the relationship between video games and emotion regulation, Villani *et al.* (2018) found that video games can be used as an emotion regulation strategy themselves, that is, as 'mood repair' (Villani *et al.*, 2018) to distract from other stresses; indeed, this is a key motivation for players, who actively seek the positive affect associated with gaming (Granic *et al.*, 2014).

Also apparent from this example is that video games take hard work and effort, requiring – and honing – the ability to regulate emotions in the face of serial obstacles to be overcome, what game designer and theorist Jesper Juul (2013) terms 'the art of failure'. This includes being able to cope with frustration, anger, anxiety and sadness (Granic *et al.*, 2014).

The 'as if' worlds of video gaming present narratives and opportunities to take on different identities through avatars. Players can create a range of selves and play with how different identities may respond to events in the narrative, for example, taking on the role of an evil person (Villani *et al*., 2018). This is in line with more general theories about players deliberately creating situations where they can experience strong emotions within the safety of the play frame (Gray, 2019; Sutton-Smith, 2017).

'The pretend context of video games may be real enough to make the accomplishment of goals matter but also safe enough to practice controlling, or modulating, negative emotions in the service of those goals. Adaptive regulation strategies such as acceptance, problem solving, and reappraisal have repeatedly been linked to less negative affect, more social support, and lower levels of depressive symptoms … These same adaptive regulation strategies seem to be rewarded in gaming contexts because their use is concretely and clearly linked to goal achievement' (Granic *et al*., 2014, p. 72).

Finally, much of video gaming is a social affair, with the requirement to regulate emotions to keep the play going and to build social relationships. The co-operation required both in games that reward prosocial behaviour and in more violent games promotes prosocial behaviour outside of the games, particularly if games are played co-operatively rather than competitively (Granic *et al*., 2014). However, a study into the skills gained through training for eSports (organised, competitive videogaming, sometimes professionally) found emotion regulation to be integral (Nielsen and Hanghøj, 2019).

Despite these benefits, there are also studies that show how excessive gaming can have a negative influence on emotion regulation skills (Villani *et al*., 2018), highlighting the importance of taking context into account when making claims.

3.7.5 Playing with surprise

In the expansion of his theory of play as emotional survival, Sutton-Smith (2017, p. 150) notes that 'uncertainty and unpredictability are the universal characteristics of all kinds of play'. However, he interprets 'surprise' as shock and focuses on teasing and 'hazing'. He suggests that these forms of play raise a challenge to the non-productivity and voluntarism most definitions of play include. Whilst teasing is milder than hazing, which can be 'relentless and unpleasant' (p. 195), both are forms of enculturation, and are also, initially at least, heteronomous (controlled by others) rather than autonomous. He discusses different cultural approaches to teasing young children, some of which are initially alarming and shocking for the young children, but because they are performed playfully, children soon learn to join in with the teasing performances. He gives examples from Inuit and Beng (Ivory Coast) cultures that may, to minority world eyes, seem extreme. However, he does also describe the teasing characteristics of parents closer to home in the first years of their children's lives, including blowing raspberries on children's tummies, peek-a-boo, poking a tongue out, tickling, falling over to make babies laugh, hanging babies upside down or throwing them into the air and so on.

These are all injections of surprise which may shock and confuse babies at first, but which they soon come to anticipate. Anticipation becomes a pleasurable state when awaiting the surprise which can be both predictable (as in peek-a-boo) and unpredictable (not knowing when the 'boo' or other surprise will come, or not knowing that it will come). Eberle (2014) notes that memory and prediction share a neural substrate in the brain, suggesting that 'players in a state of anticipation may be "remembering" a future pleasure' (p. 223).

Other research focuses more on how and why children deliberately seek out uncertainty and surprise in many forms of playing (Gray, 2019; Sharpe, 2019). In other words, rather than being about problem-solving, play is about the *creation* of novel problems in order to resolve them: in contrast to the efficiencies and rationality of everyday survival, playing is deliberately inefficient and is a 'violation of normal utility' (Chu and Schultz, 2020, p. 2). Children often deliberately put themselves in situations where they temporarily lose control (for example spinning round and round, hanging upside down, jumping from a great height, skating on slippery surfaces, navigating a space blindfolded or telling ghost stories). These movements are disorientating and help prime the vestibular system (Sharpe, 2019).[97]

One explanation for this is that such forms of play provide a relatively safe context for priming neural networks to respond flexibly and creatively to novel situations without over-reacting, learning how to deal emotionally with being surprised or temporarily out of control (Andersen *et al*., 2022; Gray, 2019; Kellman and Radwan, 2020; Pellis *et al*., 2014; Pellis *et al*., 2018; Sgro and Mychasiuk, 2020; Siviy, 2016; Vandervert, 2017). Kellman and Radwan's (2022) review of research into the neural basis of play shows that play engages the same neural networks and processes as those involved in impulse control and stress response systems (through balancing inhibitory and excitatory neural/action responses to safety and danger), balancing automated, habitual responses and novel ones (behavioural set-shifting), and making decisions about what warrants attention (gating).

In extending findings from animal social play to broader forms of children's play, Andersen *et al*. (2022) suggest that to be enjoyable (and so sought out), surprises have to be just right: not too boring and not too chaotic. For example, when children create 'as if' worlds in pretend play, they keep many of the parameters of the real world and just change a few, keeping a 'sweet spot' of complexity and moderate surprise. Andersen *et al*. (2022) put forward an argument to say that children's enjoyment of playing with surprise comes from the deliberate creation of uncertainty and then the resolution of prediction errors. Predictive processing theory integrates cognition, perception and emotion in the process of minimising errors in prediction (i.e., surprise). Prior (top-down) knowledge means that we expect something to happen, but if that is not the case (in terms of bottom-up sensory experience), we seek to resolve the prediction error. In play, deliberately walking backwards or blindfolded, for example, disturbs the usual state of affairs and creates the possibility of resolving prediction errors by managing to complete the movements without bumping into too many things. Resolving prediction errors faster than expected gives rise to positive emotions, hence the motivation for children to create situations that violate their current beliefs about how the world works. Vandervert (2017) takes this thinking further and suggests that what is training for the unexpected in animals becomes the basis for socialisation, imagination and culture in humans. This takes place through the highly evolved and extended functions of the cerebellum that enable rule-governed imagination in play to help predict events.

These studies show that, as with emotion regulation, the ability to deal emotionally with unexpected events through a healthy stress response system, together with the social and cognitive aspects of responding to surprise and uncertainty described here, contribute to resilience and wellbeing alongside other social, cultural and environmental factors.

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[97] See section 3.6.3.

3.7.6 Playing with fear

'Play can always involve fictional perils or demons ... which is one reason why it is so exciting. Play bathes players in that excitement at the same time as it maintains their security through the modulation of threats' (Sutton-Smith, 2017, p. 132).

As Sutton-Smith (2017) shows, fear can be parodied and overcome in play in many ways from games of chase, to telling ghost stories to physical thrill-seeking. Children often add phantasmagorical elements to made up games of chase, drawn from diverse off and online influences, such as the zombies and ghosts in the maze chase game played by young girls one lunchtime in a school playground (Willett, 2015). Even though the source of the fear is entirely imaginary, the screams emitted suggest the sense of it is real and lends play its vitality. As with the need for a 'sweet spot' for playing with surprise (Andersen *et al*., 2022), so the balance between exhilaration and fear, or between excitement-seeking and anxiety-avoiding, needs to be just right (Dodd and Lester, 2021; Sandseter, 2009, 2010; Sandseter *et al*., 2022). This involves sophisticated artistry: 'the theatrics of fear require the development of considerable personal mastery to keep "fears" at bay' (Sutton-Smith, 2017, p. 135). Sometimes, however, real harm can and does ensue from forms of risk-taking.

Much of the research into the benefits of playing with fear tend to be neuroscientific or psychological, focusing on the individual child. A posthuman lens on such research pays more attention to how 'intensities and emotions [arise] through intra-actions between human and non-human players' (Procter and Hackett, 2017, p. 214). Such non-human players include material objects and place. Further, non-human players also include the broader cultural, historical and political context, in terms of the kinds of play narratives that might evoke fear as being embodied in something 'other' than the child-player. Procter and Hackett (2017) describe how two girls act out a scene of bullying in which the 'bully' embodies and enacts power and the 'victim' curls in on herself, taking up less space and appearing vulnerable. The girls are playing with the fear inherent in school rhetorics of bullying and of the aggressive 'other'. The bully is eventually portrayed as lacking, as someone who is unable to control their emotions, showing how 'the patterning of emotion is always structured and mediated within wider material and discursive contexts' (*ibid*., p. 223).

Play and risk

Over the last few decades, a movement has gathered pace that advocates for the benefits for children's health and wellbeing of risk-taking in play (Ball and Ball-King, 2013, 2014; Ball *et al*., 2012; Ball *et al*., 2019; Gill, 2007). Research studies linked to this movement have mostly (but not exclusively) focused on physical risk-taking rather than the emotional risks of the fantasy games described above (Sandseter *et al*., 2022). Categories of risk devised by Sandseter (2007, 2009) have been adopted in many studies (for example, Brussoni *et al*., 2012; Brussoni *et al*., 2015; Dodd and Lester, 2021; Grady-Dominguez *et al*., 2020; Harper, 2017; Hinchion *et al*., 2021; Sando *et al*., 2021). These are: playing at height, playing at speed, playing with dangerous tools, playing near dangerous elements (such as water or fire), rough and tumble play and play where children can disappear or get lost. A recent systematic review identified a further four categories in the literature, although there are overlaps: play

with impact (risk of injury through impact), loose parts (risk of harm from dangerous or heavy loose parts), messy play (risk of injury or illness from messy play in unsanitary or cold environments) and body play (risk of injury from falling or colliding) (Jerebine *et al.*, 2022). More recently, Sandseter *et al.* (2022) extend the discussion beyond physical risk taking to consider the relationship between playing with fears in pretend play and emotion regulation[98] and playing with taboos and social risk.

The emergence of 'risky play' as a category has been criticised by some. For example, Armitage (2011, p. 11) argues it is not a category of play: 'taking risks is simply one of the things children do when they are playing'. Similarly, Lester and Russell (2014b, p. 241) state:

'Risk is big business ... It commands vast resources to develop preventative measures that are the preserve of experts issuing often contradictory advice and warnings. Children's play is caught up in this account. No longer something that children just do, it is subject to adult scrutiny that simultaneously and paradoxically attempts to manage risk and promote "risk-taking" for its perceived instrumental benefits.'

These instrumental benefits include improving children's risk competence and perception (Brussoni *et al.*, 2012; Gray, 2020; Lavrysen *et al.*, 2017) as well as the capacity to cope with new, uncertain and fear-inducing situations (Gray, 2020; Sandseter, 2010; Sandseter and Kennair, 2011). As with surprise, playing with fear promotes connections between the limbic system and the pre-frontal cortex in ways that modulate responses to fear, meaning children can adapt to and be less stressed in fear-inducing novel situations (Gray, 2020; Lester and Russell, 2014b). Risky play is also strongly associated with physical activity levels (Gray, 2020; Sando *et al.*, 2021). A systematic review of 21 research studies of three categories of risky play (risk of getting lost, play at great heights and rough and tumble play) carried out by Brussoni *et al.* (2015) urges caution regarding the quality and comparability of studies. Nevertheless, despite a range of findings, the studies suggest overall positive effects for physical activity and also social health. Risk-taking has also been found to have benefits for mental health, particularly in reducing anxiety and improving positive affect (Dodd and Lester, 2021; Dodd *et al.*, 2022). Little and Stapleton's (2021) study found that the joint endeavour and rituals involved in shared episodes of risk-taking in play supported a sense of belonging across cultural, social, emotional, spatial and physical dimensions.

Children, particularly young children, tend not to talk about risk, but they do use words like 'scary' (Hinchion *et al.*, 2021; Sandseter, 2009; Willett, 2015) and 'thrilling' or 'exciting' (Hinchion *et al.*, 2021; Hyndman and Telford, 2015; Sandseter, 2009), associating it with fun (Hinchion *et al.*, 2021; Sandseter, 2010) and an exhilaration at performing a risky manoeuvre successfully (Sandseter, 2009). McDonnell (2019, p. 258) shows how children's accounts of their risky exploits exceed words, with 'tone and expression conveying the exhilaration of the event, and the sense of mastery achieved'. It is the thrill of successfully navigating the balance between exhilaration and fear that makes such forms of play so attractive and so exciting (Hyndman and Telford, 2015; McDonnell, 2019; Sandseter, 2009), with one child describing the feeling as 'it tickles in my tummy, and also I feel wild and it gives me a shaking feeling' (Sandseter, 2010, p. 76).

As Sando *et al.* (2021, p. 1437) note, 'Children engage in risky play motivated by the thrilling experience itself, not because they want to become good at risk assessment'. The thrill comes both from the fear and from the exhilaration at confronting the fear. This sense of vitality both from the thrill of risk taking and playing with fear more generally generates a sense of joy associated with wellbeing (Sando *et al.*, 2021).

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[98] See section 3.7.4.

The scenario below is from a blog written by a research participant in a study with adventure playground workers. It clearly highlights the thrill and vitality involved in risk-taking. It also shows how moments such as this emerge from the assemblages of the children's desire to enliven things, the material objects to hand, the call of the water tower, the culture of the playground, and much more (see also Procter and Hackett, 2017):

'One summer afternoon, some children had been investigating around the edges. One boy emerged with the red plastic slide from the kit house that is scattered around. He said "Look what I found! What can I do with it?" Several other children followed him. They decided to take it up the water tower structure. They worked together to lift the slide up the structure. They got to the level where the rope hangs over the sand pit … They pushed the slide out over the end of the structure above the sand and two of them sat on the slide, stopping it from falling over the edge with their weight. Then after a countdown, the boy at the back got off and the slide dropped with one boy still on it. He grabbed the rope just in time to stop himself falling along with the slide. The level of excitement was something I've not seen before on the playground. He climbed down. The other boys congratulated him on surviving. He said "That was sick! That was sick you know!" One of the other boys said "We could do this every day!" The first boy said "I didn't know I was going to make it! I thought I was going to die!"' (Lester and Russell, 2014b, p. 242).

3.8 The therapeutic role of play

It is well documented that long-term toxic stress[99] can be harmful for children (Foley, 2017; Garner and Yogman, 2021). Equally, play has long been understood as a coping or healing activity, helping children to deal with difficulties, hardships and stresses they encounter. Whilst a range of adult professionals, including play therapists, occupational therapists, hospital specialists and more, can support children through play, children also use play themselves in this way (Bateman *et al.*, 2013; Clark, 2018).

Much of the focus on play's therapeutic benefits focuses on toxic and other extreme forms of stress. However, it can also help with more everyday stresses. For example, the thrill and excitement induced in playing with fear and surprise[100] can help prime stress response systems that help reduce the likelihood of children developing clinical anxiety (Dodd and Lester, 2021; Dodd *et al.*, 2022).

The therapeutic benefits of play include:

- facilitating communication (including expressing material that cannot be put into words);
- fostering emotional wellness (including catharsis, abreaction, positive emotions, counterconditioning of fears, stress inoculation and stress management);
- enhancing social relationships (including social skills, attachments and empathy);
- increasing personal strengths (for example, resilience and self-regulation) (Drewes and Schaeffer, 2014).

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[99] The current understanding of 'toxic stress' from the American Academy of Pediatrics is that it 'refers to a wide array of biological changes that occur at the molecular, cellular, and behavioral levels when there is prolonged or significant adversity in the absence of mitigating social-emotional buffers. Whether those adversity-induced changes are considered adaptive and health-promoting or maladaptive and "toxic" depends on the context' (Garner *et al.*, 2021, p. 2).

[100] See sections 3.7.5 and 3.7.6.

3.8.1 Therapeutic benefits of spontaneous play in situations of crisis

Children can often experience the therapeutic benefits of play in their spontaneous, self-organised play through re-enacting stressful events, sometimes to become accustomed to them and sometimes to reframe them. As with issues of affect discussed in section 3.7, play provides children with a once-removed and relatively safe frame for exploring feelings and possible adaptive coping mechanisms, including expressing fears in some way, finding ways to protect themselves from the threat, defeating it, or mocking it (Clark, 2018; McKinty and Hazleton, 2022).

'A major healing function of play involves the ability to experience self-efficacy by changing the passive victim role into an active one and by showing off in fantasy one's power and capabilities' (Cohen and Gadassi, 2018, p. 30).

Being able to do this through play can help relieve stress (Chatterjee, 2017, 2018) and prevent repression that may surface as challenging behaviour or neurosis (Bateman *et al.*, 2013).

Examples of children doing this were seen in the aftermath of the East Japan earthquake and tsunami, the earthquake in Nepal (Chatterjee, 2017, 2018) and the Christchurch earthquake in New Zealand (Bateman *et al.*, 2013). Clark's research (2018) shows how children with chronic illness engage in such forms of play, including ways of coping with treatments, also forming social bonds with other children in similar situations through such play (see also Cohen and Gadassi, 2018).

Playing during the COVID-19 pandemic, using digital devices and otherwise, made a significant contribution to maintaining children's happiness and wellbeing (Kourti, 2021). This function of play in attenuating the adverse effects of lockdown conditions is supported by evidence from previous research into children's play in other restrictive environments including hospitals, juvenile and immigration detention centres and refugee camps (Graber *et al.*, 2021) and other situations of crisis (Chatterjee, 2017). Opportunities for playing can serve both to generate a sense of normality and strengthen resilience (Chatterjee, 2017; Cohen *et al.*, 2014). Children often play through experiences over which they have little control and which trouble or traumatise them (Casey and McKendrick, 2022), helping them understand and come to terms with their experience (Cohen *et al.*, 2010). Examples from research into children's play during lockdowns include children incorporating elements of the Coronavirus itself, for example in game of Coronavirus tag; the mitigating measures, like playing at hospitals and putting masks on teddies; or the collective responses, such as rainbows in windows (Cohen and Bamberger, 2022; Cowan *et al.*, 2021; McKinty and Hazleton, 2022).

Children can use play as a distraction or as a way of normalising extraordinary situations, adapting play to the new situations. Chatterjee's (2017, 2018) study of children's play during a range of natural and humanitarian crises across six countries found that children's need to play – often in very everyday ways – was so strong that they would sometimes find ways to meet friends and play against the wishes of their parents, and often in hazardous environments.

However, some forms of repetitive post-traumatic play can be maladaptive, including overwhelming re-enactments and forms of re-enactment without some kind of soothing or satisfactory ending. Given this, some forms of intervention or therapy may be required. These may include community level interventions that can help the situation feel as normal as can, creating the spaces and conditions that support children's play, and therapeutic interventions that may be in groups or individual (Cohen and Gadassi, 2018). In three case studies, Fearn and Howard (2012) show how interventions that create conditions for children's play in contextually relevant ways, what we might call creating capabilities for play, supports their capacity to develop ways of coping with extreme adversity.

3.8.2 Play therapy

There is a significant body of literature covering theories and approaches to play therapy with children as well as empirical studies pointing to its effectiveness (Lin and Bretton, 2015). This section offers a limited and very brief overview. From early pioneers such as Melanie Klein, Virginia Axline, Erik Erikson and Donald Woods Winnicott, play therapy has developed in many directions, often used in conjunction with other interventions, and also offering specific forms of therapy such as 'art therapy, sand tray therapy, storytelling, music and dance therapy, puppet therapy, costume therapy, bibliotherapy, and numerous forms of symbolic and game play' (Clark, 2018, p. 4), as well as filial play therapy, where parents are trained in non-directive play therapy approaches and supported to bring these skills to their relationships with their own children (Cornett and Bratton, 2015).

Meta-analyses of child-centred play therapy found it to be a beneficial intervention for children, particularly for children under eight years of age and those presenting 'broad-spectrum behavioral problems, children's self-esteem, and caregiver-child relationship stress' (Lin and Bretton, 2015, p. 54). In considering the neuroscience underlying play therapy, Stewart *et al.* (2016) acknowledge the role of oxytocin in developing trusting relationships between therapist and child that enable children to explore troubling issues in their play. Within the safe frame held by the therapist, children can create alternative stories, helping to unlearn automatic defensive responses and maladaptive somatic markers, supporting the generation of new neural connections and plasticity. Mirror neurons can help with empathic attunement between therapist and child, again enhancing the therapeutic relationship and allowing a connection beyond the need for expressing worries in words (Stewart *et al.*, 2016). Such attunement also enables therapists to help children find a 'sweet spot' of arousal and challenge in play, supporting emotion regulation and healthy stress responses.[101] As Drewes and Schaeffer (2014, p. 2) note, 'play actually helps produce the change and is not just a medium for applying other change agents'.

Many children who are seen as needing therapeutic interventions display emotions that do not fit within what is considered acceptable, and therapy therefore seeks to help them play out such emotions thereby developing emotion regulation. Relational perspectives on emotions suggest that therapeutic approaches assume emotions are individual, residing in the minds and bodies of children, obscuring broader entanglements and political issues of power (Diaz-Diaz, 2022; Procter and Hackett, 2017).

3.8.3 Therapeutic play and children who are ill and/or hospitalised[102]

Children with chronic or life-threatening illnesses often do not have the capability to engage in as wide a range of play forms as their healthier peers due to constraints such as isolation, pain, fatigue and many absences from school due to hospitalisation and treatments. They are at greater risk of poor mental health and social competence, although there is sparse research explicitly looking at the effects of reduced opportunities for play and short- and long-term outcomes for chronically ill children (Nijhof *et al.*, 2018). While the stress of chronic illness hampers the ability to play, playing can help such children to cope with the stresses of their disease and its effects on their lives (Nijhof *et al.*, 2018; Tonkin, 2014).

For hospitalised children the capability to engage in self-organised play can help give them some sense of control over events, help create a sense of continuity with everyday life, and reduce anxiety, fear, stress and even pain, helping them and their families to have a more positive experience of being in hospital (Gulyurtlu *et al.*, 2020; Koukourikos *et al.*, 2015; Nijhof *et al.*, 2018). Similarly, play specialists can support forms of play that bring these

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[101] See sections 3.7.5 and 3.7.6.

[102] The sources given here are reviews of the research and so constitute a broader evidence base than single study sources.

benefits as well as helping children prepare for and engage and cope better with procedures and treatments (Gulyurtlu *et al.*, 2020; Koukourikos *et al.*, 2015; Nijhof *et al.*, 2018).

Pruitt (2016) traces a shift in practices in hospitals in the USA from seeing play as diversionary towards seeing it as therapeutic, with a parallel reduction in children's spontaneous, self-organised playing and growth in professionalised, directed play aimed at specific therapeutic outcomes. From the literature, this seems less apparent in the UK (Gulyurtlu *et al.*, 2020; Tonkin, 2014).

3.8.4 The therapeutic value of video games

Video games can also help children's experiences of illness and hospitalisation, since they allow those with limited mobility and energy to play. Playing video games can help reduce nausea and anxiety and generally enhance positive affect, and carry the potential for further benefits (Nijhof *et al.*, 2018). A systematic review by Zayeni *et al.* (2020) finds evidence for the usefulness of 'serious' video games (that is, video games designed to develop specific skills or teach concepts), which can operate as a complement or alternative to other therapies for children and adolescents with anxiety or depression (see also Granic *et al.*, 2014), and also as part of treatment for autistic children or those with ADHD. Commercially available exergames (such as Wii) were found to be helpful for children with developmental co-ordination disorder (DCD) and autistic children.

3.8.5 Therapeutic interventions with neurodivergent children

The top-down, medical view of the value of computer games described in the previous section is dominant in the research, which largely seeks to assess the efficacy of video games for addressing deficits in disabled (mostly neurodivergent, mostly autistic) players (Spiel and Gerling, 2020). This is in line with much of the research into therapeutic play interventions (Besio *et al.*, 2017), and particularly for neurodivergent children (Leadbitter *et al.*, 2021; Schuck *et al.*, 2022). 'Therapy' from this perspective may be loosely understood as attempts to fix or normalise differences understood as deficits. Since the 1990s, this medical model has been strongly criticised by the growing neurodiversity movement, which argues that neurodiversity can be analogous to biodiversity, that is, differences contribute to healthy ecosystems:

'the Autistic way of socializing, communicating, and sensing is seen as an alternate and acceptable form of human biology that should be celebrated and accommodated rather than corrected or cured' (Schuck *et al.*, 2022, p. 4628).

At the same time, the movement recognises that interventions can be helpful if they can address the challenges that autistic people themselves feel they face and improve their quality of life. This can include drawing on autistic children's own knowledge of themselves and their play preferences, identifying outcomes that are helpful to the children, focusing on the wider ecologies of autistic children's lives (Fletcher-Watson, 2018), or, as Lai *et al.* (2020, p. 434) state, 'maximising potential, minimising barriers and optimising person-environment fit'.[103]

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[103] See also section 3.3.3.

A scoping review by Gibson *et al*. (2021) of play-based interventions aiming to support autistic children's social development and communication found 388 studies that met their criteria, demonstrating how prevalent the therapeutic use of play interventions is for autistic children. They found a wide diversity of approaches, with some using play as a context for the intervention, others as a component of a range of interventions, and others as a key mechanism. The stakeholder consultation they carried out as a part of the scoping review found that play-based interventions were largely acceptable, although care had to be taken to ensure that the interventions did not affect children's enjoyment of play at other times.

3.8.6 The therapeutic potential of playwork

Many playworkers work with children who are troubled in diverse ways and varying in intensity, and by offering opportunities to engage in a broad range of play types (Hughes, 2012) alongside the unique ethos and approach playworkers bring, they can create the conditions for children to realise play's therapeutic benefits (Brown, 2018). Playwork theory emphasises supporting as much as possible children's self-organised playing, intervening in ways that support further play (Chilton, 2018; Lyons, 2018; Newstead and King, 2021a; Stonehouse, 2015). Recognising the differences between play therapy and the therapeutic potential of playwork, Brown (2018, pp. 97-98) suggests:

'many of the conditions that a play therapist tries to create are actually available … if we accept Axline's (1969) view that children have it in themselves to solve their own problems providing they have the right environment, then it should not surprise us to find that children will do just that within a playwork setting.'

Playworkers have drawn on a number of psycho-dynamic theories to inform their work in this regard, including the idea of providing a holding environment for children where they feel safe to play out whatever is troubling them (Wilson, 2014, drawing on the work of D.W. Winnicott) and an understanding of the play process and how playworkers can support the expression of latent content (Sturrock and Else, 1998). Adult psychotherapy often involves the replaying of neuroses formed in childhood, Sturrock and Else suggest that playworkers can 'offer a healing environment by supporting children to play through potential neuroses at the time of their formation' (Hawkes, 2017, p. 207).

3.9 Playing with others

It could be argued that playing always involves playing with others, given that 'others' could be understood as other humans, animals, objects, ideas and more. At the same time, children's relationships with these multiple others are central to their wellbeing (in terms of both the joy and pain they produce), and for children, being and doing with others mostly means playing with them (Moore and Lynch, 2018). This section focuses on playing with other living beings, mostly, but not only, other humans. Playing with things is considered in section 3.10, and the importance of place is discussed in section 3.11. Aspects of social play, including its role in emotion regulation, are considered elsewhere, for example in section 3.7. This section focuses more on relationships with other beings, beginning with a brief review and critique of attachment theories, given that this is where much of the literature on infant play sits. It then goes on to consider the literature on play, friendship and wellbeing, playing with animals, and children's own play cultures.

3.9.1 Attachment

Early infant attachment to caregivers is strongly linked to wellbeing through infancy, childhood, adolescence and later in life (Gorrese, 2016; Gorrese and Ruggieri, 2012; Jackson and McGlone, 2020; Masten, 2014; McGinley and Evans, 2020; Panksepp, 2010). Playing helps to build these attachments, initially through adults creating safe rituals for many forms of play, including tickling and games such as peek-a-boo (Bergen *et al.*, 2016; Gordon, 2015; Jackson and McGlone, 2020). Early and enduring secure attachments to caregivers are predictive of secure attachments to others later in life (Gorrese and Ruggieri, 2012; McGinley and Evans, 2020) and, together with secure peer attachments, of fewer mental health issues such as depression, anxiety and stress (Gorrese, 2016; McGinley and Evans, 2020), although negative interactions with peer attachment figures can contribute to anxiety and depression (Gorrese, 2016). Play therapy can be used to address early attachment problems (Fearn and Troccoli, 2017; Garner and Yogman, 2021).

As children get older and skills in self-regulation and social and emotional competence develop, strong caregiver attachments provide a secure base for exploration, with the goal of caregiver attachment shifting from proximity to availability (Bosmans and Kerns, 2015). As children's social lives expand, attachments form to other adults and to peers (Bagwell and Schmidt, 2013; Masten, 2014) as well as to animals, favourite objects and to place (Carlyle *et al.*, 2020). However, it has been argued that peer friendships tend not to operate as attachments until adolescence, when they can offer a sense of security and social and emotional support (Bosmans and Kerns, 2015; Gorrese and Ruggieri, 2012).

This difference highlights how the concept of 'attachment' is used in various ways in the research. Research studies building on biopsychological attachment theories make a distinction between three or four behavioural systems of close relationships. A behavioural system is understood as 'a goal-corrected system that functions to maintain a relatively steady state between the individual and his/her environment' (Furman and Buhrmester, 2009, p. 471). The four behavioural systems are:

- the attachment system, where the goal is a sense of safety and security through proximity to an attachment figure (both in terms of a safe haven in times of distress and a secure base for exploration);

- the caregiving system, a reciprocal system to attachment, providing comfort and security, either vertically as with infants and adult caregivers or more reciprocally in close friendships and romantic partnerships;

- the affiliation system, a reciprocal system where the goal is companionship, co-operation, mutual support and play;

- and the later addition of the sexual/reproductive behavioural system, where the biological goal is to reproduce, but which also works in partnership with the other three systems (Bagwell and Schmidt, 2013; Furman and Buhrmester, 2009).

Beyond such categorical distinctions, the term appears to be used more broadly as 'the bond that ties' (Carlyle *et al.*, 2020, p. 3), referring to any relationship that, when effective, contributes to wellbeing. Masten (2014) identifies attachment as an adaptive system across a range of family, peer and romantic relationships and social networks that contributes both directly to resilience and also to the development and support of other protective adaptive systems, such as self-regulation, that are built through close relationships with others.

For older children, although attachment to caregivers remains important, friendships offer different experiences, particularly through playing. Early caregiver-infant playing both requires and builds the affective attunement needed for later forms of social play with peers including rough and tumble, games, jokes and rituals, helping to build peer attachments (Gordon, 2015). Peer attachments continue to grow in importance in adolescence and are more reciprocal than caregiver attachments (McGinley and Evans, 2020). Adolescent peer attachments differ from friendships, being a specific bond with one or two others that provides security and support (Balluerka *et al.*, 2016; Gorrese, 2016).

Critiques of attachment

Sociological and feminist perspectives heavily critique attachment theory, particularly its dominance in policy and professional practice, for biologising parenthood (largely understood as motherhood) and for using over-simplified interpretations of neuroscience in ways that belie social, cultural, economic and political matters and in ways that blame particularly working-class mothers for 'poor' parenting (Lowe *et al*., 2015; Smith *et al*., 2017). Smith *et al*. (2017, p. 1610) note how ideas have been taken up with 'a greater certainty about the concept than Bowlby himself ever claimed for it', and that Bowlby withdrew some of the earlier claims made, such as the idea of critical periods for attachment and the inevitability of poor outcomes from insecure attachments in infancy.

These arguments are powerful, highlighting how the biopolitics of policies relating to children operate in ways that are classed, gendered, racialised and dis/ablised. However, it is important not to fall into dualistic thinking that erases either nature or culture, and rather to consider how these processes are entangled, each being affected by and affecting the other (Duschinsky *et al*., 2015).[104] In addition, such critiques do not downplay the central importance of close and supportive relationships for wellbeing (Carlyle *et al*., 2020; Duschinsky *et al*., 2015; Smith *et al*., 2017). In discussing relationships of care in the context of looked after children, Smith *et al*. (2015) draw on the work of German social theorist Axel Honneth to suggest that the foundation of positive relationships is based on recognition rather than on a familial dyad that positions children as always vulnerable. Recognition has three spheres: love (recognition of the need for care), legal recognition (human rights) and solidarity (through mutual esteem and recognising how one contributes to the community). Applying this to children, love is not so much attachment but a more Winnicottian idea of 'good enough' responsiveness and the importance of play.

A relational approach acknowledges attachment as a *system* (as discussed above), and one that is contingent upon effective caregiver systems (something that was recognised by Bowlby). Furthermore, drawing on the work of Deleuze and Guattari, Duschinsky *et al*. (2015, p. 182) argue that:

> 'the disposition for an infant to seek protection from their caregiver or caregivers when alarmed is not a unilateral mechanism but an assemblage which is realized differently across micro-social contexts, and which in turn shapes varied micro-social contexts in the way it is accelerated, inhibited or reoriented.'

Holding the threat of insecurity at bay (both through a return to safety and also through the anticipation that the child *can* return to safety) allows an exploration of insecurity (a line of flight or a deterritorialisation) in the form of 'excited, expansive and combinatory play' (Duschinsky *et al*., p. 184). However, children's capacity for both attachment and exploration as they grow is affected by political economics and the almost exclusive focus of attachment work on the affective value of the family rather than the broader *milieu* (Carlyle *et al*., 2020; Duschinsky *et al*., 2015). 'Lateral' attachments can be built with multiple others including siblings, other kin and with peers through play (Carlyle *et al*., 2020).

Anthropological and evolutionary accounts of human child-rearing point to the importance of supportive 'allomothers', other adults who can help and support child-rearing, partly through being part of a network of attachment figures, but mainly through support for mothers (Hrdy, 2007). In addition, other health, social and political resources and processes (including the capability for mothers to return to work) can support parental caregiving behavioural systems (Duschinsky *et al*., 2015).

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[104] These issues are discussed in more depth in chapter 2 (see sections 2.2.3 and 2.3.1).

Bringing a relational capability approach to this, it is salient to note that Nussbaum's ten core capabilities include both *emotions* (which she describes as attachments to people and things) and also *affiliation* (Nussbaum, 2007). The capability for children to develop early secure attachments with caregivers is enmeshed with the child's broader *milieu*, which includes the primary caregiver's capability to respond.

3.9.2 Friendships

'Play lies at the heart of all our relationships, from the mutual mirroring of mother and infant and the real and imaginary friendships of childhood, to the romantic dalliances of youth and our life-long enthusiasms' (Whitaker and Tonkin, 2019, p. 72).

As typically developing children grow, they build more enduring friendships with peers (Fattore and Mason, 2017; Holder and Coleman, 2015). Play is one of the social exchanges that both defines friendships for young children (Bagwell and Schmidt, 2013; Brogaard-Clausen and Robson, 2019) and provides the context for friendships to be formed and maintained (Beazidou and Botsoglou, 2016; Carter and Nutbrown, 2016).

Alongside family relationships, friendships are identified by children themselves as being fundamental to their wellbeing, offering a sense of belonging through acceptance, mutuality and trust (Brogaard-Clausen and Robson, 2019; Fattore and Mason, 2017). The converse is also true: those with high levels of wellbeing also have more and better social relationships (Holder and Coleman, 2015). Children who have strong friendships can cope better with stress and have higher sense of self-worth and emotional security, whereas those who feel excluded and rejected can experience loneliness and depression (Brogaard-Clausen and Robson, 2019; Fattore and Mason, 2017; Holder and Coleman, 2015). Friendships can also support a sense of belonging at school and lower levels of victimisation (Petrina *et al*., 2014). In their review of research on children's friendships, Holder and Coleman (2015) also note the importance of imaginary friends for children's wellbeing.

Friendships are characterised by conflicts as well as affective solidarity and support, and both require and support the development of emotion regulation and conflict solving skills (Bagwell and Schmidt, 2013; Petrina *et al*., 2014) and other social competences such as being able to understand the emotions and intentions of others, to negotiate resolutions to conflicts and to show prosocial responses to friends' distress. The more children exhibit prosocial behaviour, the more they are socially accepted and the more disruption, aggression and conflict displayed, the more likely they are to be rejected. However, children who are shy, play on their own or isolate themselves have poorer group peer acceptance than disruptive children, although shy and isolated children can and do form reciprocal friendships (Coelho *et al*., 2017).

Many of children's friendships are established and maintained in the non-domestic institutions of childhood such as childcare and school. When asked, children identify being able to play with friends as one of the things they like best about such institutions (Ardelean *et al*., 2021; Holloway and Pimlott-Wilson, 2014, 2018; Worth, 2013), and not having friends or being excluded or bullied is a significant stressor (Aminpour *et al*., 2020; Bristow and Atkinson, 2020; Lodewyk and McNamara, 2020; McNamara, 2013; McNamara *et al*., 2015; Mulryan-Kyne, 2014). However, the importance of friendships for children's wellbeing is not always appreciated by adults in the home or the institutional setting where other aspects take precedence (Brogaard-Clausen and Robson, 2019; Carter and Nutbrown, 2016).

Tensions can arise in children's friendships between the complementary motivations for both social integration and social competition, since social integration can involve competition for friends, allies, reputation and status (Del Giudice, 2015). In the choreography for group acceptance or status, children use direct competition, aggression, teasing, excluding, bullying and gossiping in gendered ways (LaFreniere, 2011; Madrid, 2013). The ambiguities of playing, in terms of its real-but-not-real status, allow for the enaction of exclusions in ways that can play out across social divisions (McDonnell, 2019; Trammell, 2020), but in complex ways. One example (Iqbal *et al*., 2017; Vincent *et al*., 2017) comes from children attending primary schools in 'super-diverse' inner city neighbourhoods, where children's recognition of differences was sophisticated and at times unexpected. Given the range of ethnic backgrounds in such schools, such diversity was an unexceptional part of everyday life. Children's friendship groups were fluid and tended to cohere around shared interests, for example through games such as football or the latest craze (at the time of this fieldwork it was loom bands). Nevertheless, nearly all the children in the study across three super-diverse schools had a close friend from a different ethnic group. Class and socio-economic differences tended to be more salient, as children noticed differences in material possessions, for example through the technology they owned, or differences in their houses when they went to play, or their knowledge of everyday aspects of living with or without financial resources. Adults had a strong influence on friendships, particularly parents who tended to feel more comfortable with their children mixing with families like them, for example through middle class children's participation in paid-for out of school activities, which meant they spent time with similar children engaged in a shared interest.

Generally, autistic children have fewer friends than their typically developing peers, although a systematic review by Petrina *et al*. (2014) found that most autistic children had at least one friend, who was more likely to be autistic or disabled. Playing video games or engaging in physical forms of play were most common. Friendships tended to be less characterised by reciprocity, support and companionship than with neurotypical peers. However, most autistic children in the studies said they were satisfied with their friendships, possibly due to a different perception of the nature and value of friendships for them.

Conn's (2015) study of autistic writers' memories of their childhoods in their autobiographies shows a great variety in how they describe being with or playing with other children, ranging from being confused and scared by them, to watching them with fascination from a hiding place and then repeating their actions and words. Those who made friends tended to do so with other children who were seen as different or outside of the peer groups, and particularly successful friendships were formed with children whose experience of the world was similar. Others described friendships with imaginary friends, story or film characters, soft toys or pets. Some told of how they found non-autistic playmates who were able to tune into their preferred ways of playing, for example, through devising games with a strong sensory or repetitive component, something that Sinclair (2005) describes as 'interactive stimming'.

Outside of school, children's friendships, and particularly their ability to play out and to participate in social activities, can contribute to building the social networks of adults in ways that contribute to wellbeing, including through social support networks (Offer and Schneider, 2007; Stenning, 2020; Weller and Bruegel, 2009; Wells, 2011b; Wood *et al*., 2013).[105] Stenning (2020, pp. 7-8) argues that 'play can be seen as catalyst for community, through the importance of space, trust, freedom and, often, intergenerationality'. Her research into the impact of play streets sessions on communities found that adults on the street overwhelmingly felt they knew more people on their streets, that their streets felt friendlier and safer and that they felt more that they belonged. Connections with others, both with and without children, meant that people stopped to talk more to each other and helped each other out in various ways.

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[105] See also chapter 4 also, particularly for neurodivergent children's friendships out of school.

Friendships during the COVID-19 pandemic

Lockdowns and the closure of children's non-domestic institutions such as schools, playgrounds and leisure centres had a substantial impact on children's friendships. Not being able to spend time and to play with friends in person was consistently cited by children, adolescents and parents as one of the biggest negative impacts of lockdowns (Alma Economics, 2021; Barron and Emmett, 2020a, 2020b; Casey and McKendrick, 2022; Children's Commissioner for England, 2020; Children's Commissioner for Wales, 2020; Egan *et al.*, 2021; Great Ormond Street Hospital, 2021; Pascal and Bertram, 2021).

Many children spent much more time playing indoors and toy sales increased (Barron *et al.*, 2021). In terms of connecting with friends, digital games and platforms became highly significant (Barron *et al.*, 2021; Cowan *et al.*, 2021), although access to both devices and reliable internet is unequally distributed (Casey and McKendrick, 2022). In contrast to much of the concern about children's screen time more generally, during lockdowns children were actively encouraged to spend time online, both for education and for playing and staying connected with friends (Casey and McKendrick, 2022; Cowan *et al.*, 2021; Winther and Byrne, 2020). In one study of children's digital play during lockdown, children spoke of how making and staying in touch with friends through online games made them feel happy. In addition, video calling platforms were used playfully, either on their own or alongside digital games, as a way of connecting and also in ways that developed into shared games and rituals that blended favourite ways of playing offline, demonstrating children's creativity, adaptability and ingenuity as well as helping with a sense of continuity. Overall, children's stories highlighted 'the enduring nature of digital play as a source of connectedness, resilience, wellbeing and creativity' (Cowan *et al.*, 2021, p. 15).

For those living in low- to mid-density housing, adults' participation on street- or neighbourhood-level online messaging groups and social media also helped to support the emergence of playful ways of asynchronous and distanced connecting with 'anonymous others' (Brownell, 2022) on residential streets, including rainbow trails, teddy bear trails, rock snakes, chalk trails and obstacle courses, hopscotch, scavenger hunts, I-Spy games, doorstep discos, doorstep bingo and much more (Brownell, 2022; Mukherjee, 2021; Russell and Stenning, 2022). These play traces added to a sense of connection with others in a situation of uncertainty, giving a sense of hope. However, Mukherjee (2021) points out that these romanticised constructions of childhood innocence and children as repositories for national hope also marginalised those who did not have the resources to participate.

Although much of the research into children's play during lockdowns spoke of play being curtailed, a key theme has also been to advocate for play as a way of helping children respond to and cope with the challenges to their health and wellbeing (Casey and McKendrick, 2022; Cowan *et al.*, 2021; Gill and Monro-Millar, 2020; Great Ormond Street Hospital, 2021; Joshi and Stone, 2021; Loades *et al.*, 2021; Tonkin and Whitaker, 2021). The power of play during times of stress and uncertainty, and particularly play with friends, is well documented, including how it can prevent feelings of loneliness and add to a sense of connection, offer a sense of normality and control over events and help children process, make sense of and also mock what is happening (Chatterjee, 2017, 2018; McKinty and Hazleton, 2022).[106]

3.9.3 Playing with non-human animals

When asked about their lives, children frequently talk about their relationships with animals, including domesticated pets, wildlife or livestock (Moore and Lynch, 2018; Tipper, 2011), although children's attraction to animals is not universal (Irvine and Cilia, 2017; Tipper, 2011). Much of the psychological and developmental research on children and animals tends to focus on the benefits of pets for children's wellbeing, children's cruelty to animals and potential links with later adult abusive behaviour, or children's connections to nature (Tipper,

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[106] See also section 3.8.

2011). In addition, many of these studies have focused on dogs and cats as pets. Beyond this, posthuman studies have considered children's everyday encounters with other species in ways that critique nature-culture binaries and challenge human exceptionalism through decentring 'the human agent as the sole author of his/her self-environment relation' (Rautio, 2013b, p. 445).

In Wales, 53% of households have pets of some kind (Welsh Government, 2022b). Children are likely to build strong emotional ties to pets, particularly dogs, and to seek comfort from them and to trust them as playmates (Dueñas *et al.*, 2021; Marsa-Sambola *et al.*, 2017). This became even more important during COVID-19 lockdowns, as children and families were able to seek comfort in their pets during a time of uncertainty and change, to play with them and laugh at their antics, although this was balanced against higher states of arousal and more time spent together meant that some pets and humans were more fractious and aggressive (Bennetts *et al.*, 2022).

Christian *et al.* (2020) found that having a pet of any type was associated with fewer social and emotional problems in children at age five and still at age seven; similarly, Dueñas *et al.* (2021), researching with three- to five-year olds living with dogs, found better socio-emotional development (measured across adult interaction, expression of feelings and affections, self-image, peer interaction, cooperation, and social role) than those who did not. For autistic children, animals can act as a buffer against social anxiety (O'Haire *et al.*, 2015).

In their review of the literature on companion animals and children's development, Purewal *et al.* (2017) found a limited and variable body of work that overall suggested a positive correlation, particularly emotional health benefits for self-esteem and loneliness; cognitive benefits in terms of perspective taking; and social benefits in terms of social competence, social networks, social interaction and social play behaviour. However, in a different study, Miles *et al.* (2017) found that once the researchers had accounted for confounding factors, initial positive correlations between cat and dog ownership and health benefits for children became statistically insignificant. Looking beyond a hierarchical, binary and instrumental understanding of human and nonhuman animal relations that is prevalent in developmental psychology studies can show how children's relationships with animals may be conceptualised in ways other than in terms of their utility for children's development. For children themselves, animals can be seen as kin, as members of the family, with the same everyday joys and frictions of family life. Although children include pets in their accounts of what makes them happy (Moore and Lynch, 2018), they also speak about how they were also wary about pets biting or scratching when they played with them (Tipper, 2011). Equally, children's cruelty towards animals is often framed as play (Irvine and Cilia, 2017).

Pets participate in making families what they are, influencing household routines (Irvine and Cilia, 2017). How children talk about the animals in their lives is shaped by cultural understandings of both animals and childhood:

'The everyday experience of interspecies relations was often framed by children's sense of their place in the social world: their age, size, and physicality in relation to others and to space, as well as the dynamics of inter-generational power. Focussing on these factors begins to situate children's relationships with animals in a complex, relational, contextual social world' (Tipper, 2011, p. 152).

Hence, in Tipper's (2011) study, children felt it important to talk about when pets went beyond the boundaries of expected behaviour. The physicality of pets was important too, their fluffiness and their size, which can be scary if dogs are as big as the children. Children also recounted enjoying physical contact, for example through cuddling or play-fighting, perhaps because touch with pets is less fraught than touch with other adults. Smaller pets were important too (not just cats and dogs) and were described in great detail. Tipper (2011) suggests that paying attention to such framings, which tend to be different from the way adults talk about their relationships with animals, may offer up different and relational understandings of children's everyday lives.

Posthuman studies of children's everyday relationships with non-human species other than pets offer a more messy and complex picture beyond – and still including – ideas of kinship. Malone (2016b) shows how child-nature relations can be uncomfortable, paradoxical and inconsistent, where children feel fear and dislike and respond violently, or where children torment small creatures such as worms and grubs whilst simultaneously expressing concern for them. Other species bite back, however, sometimes literally, and so they are not inert or passive in the ongoing naturechild entanglement. In her study of children's play in a botanic garden, two children chased and devised ways of catching the various grubs, professing they loved nature. Such encounters were sometimes covert as they took place in proscribed areas or away from the eyes of supervising adults, where the children could share stories of past encounters. Sometimes they chased other children to frighten them with the grubs. Sometimes they intentionally or unintentionally harmed them. Malone (2016b) suggests that these encounters may offer a different perspective on children's environmental education, highlighting the inconsistent and contradictory relationships humans have with animals: 'butcher, hunting, farming, loving, death, pets, food, and animal rights' (p. 202).[107]

3.9.4 Children's peer and play cultures

Given the still-dominant nature-culture binary in both childhood and play studies, much of play research focuses on biopsychosocial aspects and benefits, as outlined in the introduction to this chapter. A cultural focus can be seen in research disciplines such as folklore, anthropology, sociology and geography. Whilst such studies focus on the *how* of children's play, and as a result often foreground children's ingenuity, nonsense and more taboo forms of playing (see, for example, Koch, 2018; Lester, 2020; Marsh and Bishop, 2013; Rosen, 2015a, 2015b; Sutton-Smith, 2017), there are also clear links to children's wellbeing (Corsaro, 2020; Marsh and Bishop, 2013).

Corsaro (2020, p. 11) defines children's peer culture as 'a stable set of activities or routines, artifacts, values, and concerns that children produce and share in interaction with peers' (p. 11). Although much research into children's play cultures focuses on the forms of play that take place away from adults (even within adult-led institutions of childhood), the games, rituals and narratives are not completely separate from the cultural conditions of children's everyday lives and of those institutions (Breathnach *et al.*, 2018; Corsaro, 2020; Johanson, 2010).

Traditional children's games are passed on from one generation of children to the next. This used to be predominantly through playing out, where children would learn the culture, etiquette, rules, techniques, aesthetics of how to play from older children, whereas today media, in the form of cinema, television and digital media play a much bigger role in the transmission and adaptation of children's games (Marsh and Bishop, 2013; Karoff and Jessen, 2008). Nevertheless, there is much continuity (and some notable changes), since children have always appropriated aspects of their everyday lives into their play, including 'textual poaching' (Marsh and Bishop, 2013, p. 77). In these forms of *bricolage* (Marsh and Bishop, 2013), children both imitate and parody cultural and social norms and power relations.

What is clear from the cultural studies is that children's play is a site not only for socialisation and acculturation, but for actively producing culture (Corsaro, 2020; Garrido, 2018; Sutton-Smith, 2017). Corsaro (2012, 2020) terms this process 'interpretive reproduction'. It is interpretive because children take aspects of their own experiences of adult life and use them creatively and innovatively for their own ends. Such interpretation inevitably differs across class and culture. It is reproductive in the sense that children are actively participating in the process of cultural production and change rather than merely internalising and expressing cultural norms.

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[107] Posthuman child-nature relations are considered again in section 3.11.5.

Conn's (2015) study of childhood memories in autistic autobiographies reveals patterns of play that can be considered an autistic play culture. Although there are variations across individuals, such a play culture mirrors elements of autistic culture more generally, for example, a preference for sensory and physical play forms with predictable relationships with other players, with much repetition and a focus on orderliness. If such preferences are not recognised or acknowledged by other adults, Conn argues, adults may constrain their play or not resource it sufficiently.

Participation in play cultures is a form of communal sharing (Corsaro, 2020), which brings an emotional buzz through a sense of belonging and which can act as a 'social glue' where 'children construct, deconstruct, reconstruct and perform friendships' (Marsh and Bishop, 2013, p. 148). Some of this sense of cultural belonging emanates from the challenges to adult power and authority, which also offers a sense of control and a collective identity (Corsaro, 2020). Children's play cultures do not operate in isolation from adults' cultures, rather they can be understood as a counterculture that exists alongside and in opposition to the practitioners' conventions and rules. Those who are successful at this relationship between children's and adults' cultures balance their resistant actions with compliance when it matters (Corsaro, 2020; Koch, 2018).

Part of the thrill of playing in ways that are forbidden, or simply disrupting the rules and conventions, is the risk of being caught, as shown in this example of children's use of taboo humour from Koch's (2018) study in an early years setting:

'Four boys repeatedly break out in laughter using naughty words in strange combinations such as "pee-fart", "pee-shit", "butt-fart" while casting glances to the adults seemingly aware that they are experimenting with words the educators don't want them to use' (Koch, 2018, p. 77).

Similarly, Koch's observation of an adult-led circle game highlights the delicate nuanced and dynamic balance between compliance and outright rebellion:

'A multitude of communication is passed around the circle such as glances, teasing, giggles, and whispers. Only a fraction of the children's attention seems to be directed towards the adult-led activity. Most of their attention is aimed at taking part in the non-verbal communication that goes on between peers, while at the same time they ensure not to disturb the educator's project. This requires a shared awareness. The children are constantly ready to enter the game, if it's their turn' (Koch, 2018, p. 80).

Children strive to be popular within both their peer and wider institutional cultures, and practitioners are often aware of this and will only censure behaviour they see as disruptive. Equally, the norms imposed and upheld by practitioners are a necessary condition for participation in peer cultures within adult-led contexts.

Much fantasy play has recurring themes, for example danger-rescue, lost-found and death-rebirth (Corsaro, 2020). These existential threats can be played out in any manner of ways that exceed interpretations that might explain them as sensemaking or cathartic (Rosen, 2015a). For example, death, alongside sex, are tropes that can make adults anxious and that are seen as taboo through such literal interpretations. Willetts' (2015) study describes how girls' playground clapping games often incorporated taboo references to sex and sexuality as well as other scatological bodily functions. In her ethnographic study in an early years setting in England, Rosen (2015a) offers a different conceptualisation of the death trope as a generative metaphor. Her analysis of the 'repeated use

of apparently causeless and reversible ludic deaths' in the play episodes she observed moves beyond a literal interpretation that would position such deaths as an immature understanding of actual death and towards a figurative understanding of play's transformative potential (that is, it is not constrained by reality). From this perspective, drawing on Henricks' (2006) theorising, she suggests that such deaths are more to do with what kind of response they might elicit from fellow players. Often, a player dying would provoke a response from others who would try and revive them, and as such could be used either when the narrative was uncertain or when players felt they wanted to command a more central role. In addition, for those who did receive care and ministrations, the death trope allowed intimate touch, something that was discouraged in other contexts by practitioners. In this way, ludic deaths can be seen as a generative metaphor for peer caring, eliciting an embodied sense of belonging to a social collectivity. However, dying did not always provoke a caring response, as some deaths and players were seen as not central to the narrative and were ignored, demonstrating both the unpredictability of play and on occasions unequal social relations.

Similarly, although death is a core aspect of digital games, one study of the appeal of Fortnite (Carter *et al.*, 2020) says very little about it as a trope and instead considers the broader place the game has at the intersection of children's play cultures and digital gaming cultures. The game supports 'hanging out' in Playground Mode, testing out new items or sharing tips and tricks with friends they mostly already know offline, highlighting the game's sociality. In addition, watching videos of Fortnite play on YouTube offers the opportunity to learn how to build game expertise and solve problems and enables a sense of belonging to a wider community, for example through sharing knowledge of YouTube celebrities. This, together with other aspects of the game's design that add to its appeal, shows how children's gaming play cultures 'involve much more than just playing the game' (Aarsand, 2013, cited in Carter *et al.*, 2020, p. 13), including the extension of Fortnite references (for example, being able to perform the dances) into offline school playground play in ways that bring status (Potter and Cowan, 2020).

3.10 Playing with things

'The stuff of play matters' (Wohlwend, 2020, p. 392).

Research into the 'stuff' of play, that is, the role of material objects, has some notable gaps. An academic search for 'object play' reveals one group of studies focusing on infancy and early play development, seeing object play as a precursor to more complex forms such as pretend play and play with rules, following Piaget. Developmental psychology studies of later forms of play tend to focus more on cognitive, social and emotional development and pay less attention to the role of objects (Lockman and Tamis-LeMonda, 2021). One exception is research drawing on cultural-historical theory that sees objects as 'mediating tools' in toddlers' transition to imaginary play through the gradual transformation of concrete props into symbolic forms carrying cultural meaning (for example, Yonzon *et al.*, 2022).

Generally, however, as can be seen by the preceding sections of this chapter, the 'stuff' of playing is rarely mentioned in studies that focus on the benefits of playing for individual children. Beyond research on infants' object play, there are some studies on block or construction play, a small body of work considering the role of therapeutic toys in play therapy and a growing literature on the benefits of playing with loose parts.

These studies mostly, but not exclusively, construct children's relationships with material objects as interaction, viewing the objects themselves as inert and passive in the process of playing, with a focus on what changes for children – skills gained or trauma and potential neuroses played out. Social and cultural geographic studies pay

more attention to the materiality of play, and mostly consider *how* (rather than *why*) children play with toys and other objects, looking at toys as the material culture of childhood intersecting with market forces and adult imaginaries.[108] Some of these studies, along with others from early education, mark a turn to 'various forms of relational materialism' (Woodyer, 2008, p. 350) that can trouble the binary of play's intrinsic and instrumental value, of the real and imaginary (Wohlwend, 2020) through paying attention to how play emerges from encounters with the material, the immaterial (including the senses) and the symbolic, reimagining 'development' or change (including skills and knowledge) as co-produced (Rautio and Winston, 2015). Such studies consider the liveliness of material objects and their part in how playing unfolds (for example, Thiel, 2015).

We consider this approach to studying the materiality of children's play in a little more detail here, to frame what follows in terms of a relational capability approach. The section then considers how 'toys' have been conceptualised before moving on to look at the practice object play of infants, construction play and the therapeutic value of play things. It then considers the complexities of children's material play cultures and ends with a section on loose parts.

3.10.1 The materiality of play: how matter matters

Throughout this review we have included research from posthuman, new materialist and more-than-representational perspectives.[109] Such perspectives emphasise the relationality of life and challenge ideas of human exceptionalism inherent in positivist and constructionist theoretical frameworks. Within this position, all matter (living and non-living) is an equal player in the entanglements that produce moments of playing, with agency being distributed across networks of relations rather than being possessed by individual children or adults. Here we present some examples of research that foregrounds the materiality of play.

In her example of a small child playing in a sandbox, Lenz Taguchi (2014) shows how playing is co-produced by sand, bucket, wind, sunlight, child, all playing with each other. The child grabs handfuls of sand and lets it go, and it is caught by the wind and glistens in the sunlight, some blowing away, some falling into the bucket held by the child. Humans and non-humans are all affected by and affect what transpires, mutually transforming, but in different ways. The child's power to act develops through 'an event of becoming-with the sand, the wind and the sun' (p. 82). Lenz Taguchi (2014, p. 79) asks the question, 'Who is playing with whom?'.

Similarly, Rautio and Winston (2015, p. 18) suggest that 'things play with children' and that 'children play back' (p. 20). Rather than being inert and passive, non-human matter has a vitality and the relational capacity to affect (Bennett, 2010). Children's openness to the world is a way of relating that is not yet constrained by the limits of physical reality or fixed socio-cultural meanings (Rautio and Winston, 2015), as with Work-Slivka's (2017) vignette of two adolescent girls fighting over a Henry (vacuum cleaner) as if they were fighting over a person.[110]

Lester (2020) recounts an observation of three girls building a bridge from cable drums, plastic bricks and large pieces of foam, which one girl then attempts to cross, but the whole thing collapses amid fits of giggles and a repeat building. The observation detail shows how, through the positioning of her body and an evident attentive anticipation, the girl is aware of the physical properties of the bridge, of gravity and of the precarity of the structure, and this is the attraction. The event is 'a co-creation of bodies, sensations and materials as an act of affective participation in everyday life' (Lester, 2020, p. 84).

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[108] See section 3.10.6 and chapter 4.

[109] Particularly in chapter 2, section 2.2.4 and this chapter, section 3.3.5 and woven throughout.

[110] See section 3.7.1.

In Thiel's (2015) study, boys are trying to 'tame' fabrics to behave as they want them to, and this is not always straightforward. Cutting holes for eyes and mouth to make a mask, or trying to join pieces of fabric using staples to make a toga or a cape proved difficult as the fabric fought back and was hard to cut, or came apart. Once assembled, the costumes enabled forms of superhero play (because superheroes all have costumes), including the cape which enabled one of the boys to defy gravity and fly. The fabric, in this account, is not 'just fabric', but 'collaborates with the children and their superhero expertise interdependently, allowing new possibilities for fabric, superhero play, and action literacies' (Thiel, 2015, p. 122).

In Conn's (2015) research analysing the childhood play memories of autistic writers, objects and their intense, vivid sensory affordances were recalled more often than the authors' relationships with other people and were often described in terms of being alive, in ways that offered feelings of safety, calm and connection. The descriptions of pretend play, which were largely about re-creating everyday life in an orderly way, had a big focus on collecting, arranging, ordering and tidying hyperreal props.

3.10.2 What is a toy?

In theorising what a toy might be, Levinovitz (2017) separates them from games: children play games, but they play *with* toys. Games are rule-bound and have a goal, toy play is more fluid and is goalless. Given that anything can be used as a toy and given that how an object is used defines its 'toyness', some objects may be toys at some moments and under some conditions but not others. The label of 'toy' therefore does not necessarily and always attach to specific objects; rather Levinovitz (2017) suggests toys could be understood as 'moments in *time*' (p. 271, emphasis in the original):

'[I]tems traditionally referred to as toys are not, in fact, toys in and of themselves, but rather physical objects that are conducive to the kind of interaction between subject, object, and context that produces a toy, which I define as an *invitation to play with identity*' (Levinovitz, 2017, p. 271).

He inverts the traditional subject/object positioning such that the toy becomes the subject inviting the player to play, asking 'What would you like to make of me?' (p. 278). How such an invitation is taken up depends on context.

There are parallels (and differences) in this theorising with both affordance theory and new materialisms. 'Affordances', a concept developed by ecological psychologists James J. Gibson (1979) and Eleanor J. Gibson (1982) to describe the possibilities offered by landscapes or objects, has proved a useful concept that has been adapted and developed in different ways. It encompasses the reciprocity between organism and environments and between perception and action (Gibson, 2000; Heft, 2018). Importantly, and in ways often overlooked, Gibson's original concept was, despite their positivist orientation, 'radically relational' (Wilson, 2022, p. 176), in that in his conceptualisation, the affordance was not located in objects or landscapes or in the perceiver, but in the in-between. In addition, cultural-historical processes are constitutive of organism-environment relations rather than merely contextual (Heft, 2013, 2018) as are socio-emotional dimensions (Heft, 2018; Heft and Kyttä, 2006). So, whilst a slope may potentially afford – even invite – rolling down, or a tree climbing, whether such affordances are actualised is influenced by complex interrelated processes (Wilson, 2022).

Whilst not without its problems, conceptualising affordances through the relational ontology of new materialism has potential. As Wilson (2022, p. 179) notes, '[d]oing so invites thinking about the complex intra-active qualities of playful events rather than focusing on human-object interactions or material objects themselves as tools for human use'.[111]

3.10.3 Object play

The term 'object play' is usually used by psychologists to refer to play where the interaction with objects is the main focus rather than where objects are used as props in other types of play (Pellegrini, 2019; Solis *et al.*, 2017), although one of the frequent criticisms of object play research is that there is no agreed definition. Pellegrini (2019) argues for a tightly bounded definition that separates playing with objects from exploration, construction and tool use, all of which are focused more on ends than means. His research found that a key function of object play rests in its non-functionality and openness to novelty and creativity: children can find novel uses for objects that attract the attention of peers and may then be taken up and used in different contexts, contributing to behavioural flexibility and also to friendships built on shared interests. Similarly, Riede *et al.*(2018) suggest, in their archaeological study of pre-historic artefacts using developmental psychological understandings of play, that playing with objects (particularly miniature objects of things used by adults, but not exclusively) 'acts as a primer for innovation' (p. 55), because when playing children are separated from the need for efficient and functional use.

Others promote a broader understanding of object play. For example, Barton *et al.* (2020) include sensorimotor, functional and symbolic play all under the heading of object play. Lockman and Tamis-LeMonda (2021) argue that the classic trajectory for infant play from exploration to functional use of objects and then to pretend play creates a false separation of the real and the imaginary.

Earlier and some contemporary studies of infants' object play have been critiqued for isolating cognitive or motor aspects of object play from the broader social context in which such playing happens (Cohen, 2019; Lockman and Tamis-LeMonda, 2021; Pellegrini, 2019), and for researching short play episodes under tightly controlled conditions (Herzberg *et al.*, 2021; Lifter *et al.*, 2022; Solis *et al.*, 2017). For example, Lifter *et al.* (2022) argue studying naturally occurring play episodes suggests that rather than individual play categories developing in a linear manner, development progresses from simple to complex across differentiation, representation, symbol use and the attribution of agency, with many developments happening at the same time, affecting each other. Generally, the benefits of infants' object play have been summarised as developing higher-level problem-solving skills, developing spatial-mathematical reasoning, and discovering causal mechanisms. Through playing with objects children can develop a working understanding of forces, movement, gravity, weight, volume, buoyancy, and much more; even if they cannot give scientific explanations, they can anticipate how things will behave (Solis *et al.*, 2017).

A detailed analysis by Herzberg *et al.* (2021) of two-hour long videos of infants between 13 and 23 months taken in their homes found that they spent an average of 61% of their time interacting with objects that were a mix of toys, non-toys and both, and when they were not doing so was mostly because of external factors (for example, caregivers carrying them). Infants interacted with a huge variety of objects in short bursts (although this did vary across infant temperament and caregiver joint attention/engagement). In time-limited episodic laboratory research, this variety has been characterised as distractibility and poor attention. However, Herzberg *et al.* (2021)

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[111] We also suggest that the framework of a relational capability approach allows for a politicisation of the theory of affordances. The personal, social and environmental conditions that mean children can actualise physical affordances – that they have the capability to play – are matters of social and spatial justice. This is explored further in chapters 4 and 5.

suggest that flitting between a huge variety of objects in natural settings may be an adaptive and optimum way of learning rather than indicative of inefficiency, allowing for an equally wide range of manual and motor actions and object properties. 'Indeed, each object provides unique opportunities for action-dolls can be hugged; balls can be thrown; blocks can be stacked; pillows can be squeezed; lids can be twisted; and fruit can be squished' (p. 161).

Building on research showing a link between infants' object exploration and gestures, vocalisations and growing vocabulary, Orr's (2020) research with typically developing children suggests that it is *playing* with objects that mediates that relationship, through providing a framework for imitation, memory, representation and the use of words.

In bridging the focus on action-perception theories in object play and on the social in pretend play research, Lockman and Tamis-LeMonda (2021) bring an embodied cognition approach to show the interdependencies of object manipulation and play. Children's motor skills affect the complexity and flow of pretend play. Daily encounters with material objects build motor skills that can be brought to more complex forms of play in the same way that daily routines and happenings provide narrative material for pretend play scenarios.

'The idea that pretend play is free of motor demands and largely object-free, which is implicit in some cognitive-developmental accounts, mischaracterizes the reality of pretend play. Instead, we argue that parallels and interdependencies between the development of manual skill and play pave the way for the creation of a more integrated account of children's real and imagined use of objects' (Lockman and Tamis-LeMonda, 2021, p. 180).

3.10.4 Block play and construction

Despite Pelligrini (2019) arguing that construction is not play since it is ends and not means focused, there is a significant body of research into children's construction play and its relation to spatial and mathematical skills, executive function and planning (Gold *et al*., 2021; Ness and Farenga, 2016). Block building skills are generally thought to progress across spatial dimensions and become more complex and more representational as children develop, contributing to language skills, mathematical skills, spatial reasoning, representational skills and social skills (Tian *et al*., 2020). As with other forms of play, there is a bi-directional influence, in that block play can be used both to assess and promote 'behavioral-cognitive capacities, namely, spatial ability, abstract reasoning, representational thinking, numeracy, constructive and manipulative ability, initiation and execution, adaptiveness in material use, and integration of play behavior' (Tian *et al*., 2020, p. 774).

Looking specifically at the influence of block play on arithmetic processing, Newman *et al*. (2021) found a stronger effect from structured play (that is, following a design) than in free play. Conversely, Ness and Farenga (2016) argue that if forms of block play are too prescriptive, this can impede both spatial and mathematical development and creativity and innovation. Prescription can be in the form of specific instructions for building particularly (often themed) models or in the design of blocks themselves. For example, bricks (such as Lego) click together and so are inherently more stable than smooth faced blocks and so are less flexible. Many blocks have specific shapes, such as arches, that limit how they can be used. Planks – smooth faced, uniform rectangles – offer the most flexibility, promoting creativity and innovation, and also require more skill to prevent collapse and therefore promote spatial and mathematical skills more effectively. The value of non-prescriptive play materials is also considered in section 3.10.7.

3.10.5 The therapeutic value of toys

Toys are used in play therapy to enable children to play out, modify and feel some level of control over events, helping them to process and heal from trauma (Parker *et al.*, 2021). However, surprisingly little attention has been paid to their role in child-centred play therapy (Ray *et al.*, 2013) or in psychology more broadly (Solway *et al.*, 2016). Generally, toys used for child-centred play therapy should be as open-ended as possible and should be selected based on their capacity to serve a therapeutic purpose, allow children to express themselves and help build a relationship with the therapist (Ray *et al.*, 2013). This research with play therapists by Ray *et al.* (2013) showed that they all used toys across the five categories identified by Kottman (2011):

- family/nurturing toys (for example, dolls, babies, home toys, stuffed toys, sandpit toys) that can help children play out family issues and build a relationship with the therapist;

- scary toys (such as dinosaurs and scary animals, scary puppets) that can help children express fears and work through trauma;

- aggressive toys (for example guns, knives, soldiers, punch bags) that can support children to play through anger;

- expressive toys (creative materials) that are open-ended and can help with expression;

- pretend/fantasy toys (such as dressing up clothes, props for pretend play, puppets, farm animals) that can help children play out roles and experiment with different ways of behaving.

Ray *et al.* (2013) argue that the categories of scary and aggressive toys could be merged because of significant overlap. There is much debate about the use of 'aggressive' toys in play therapy, and research on whether toy guns and aggressive toys decrease aggressive behaviour through catharsis or increase it is inconclusive. Equally, the debates amongst play therapists show a difference of views, with many accepting broader 'aggressive' toys (such as swords or punch bags) but not guns (Parker *et al.*, 2021). Even if guns are not available, children tend to find ways to bring symbolic guns into their play, using puppets, play dough, sand, or other more neutral toys (Davis *et al.*, 2022).

Attachment to objects

Over a course of play therapy, some children develop particular routines with the same toys to help them express and play through trauma (Cottis, 2017). Outside of formal therapeutic contexts, many children develop strong attachments to special objects or toys in infancy. While Winnicott called them 'transitional objects', Bowlby used the term 'attachment objects'. They can reduce separation anxiety from caregivers and ease distress when undergoing medical procedures (Lee and Hood, 2021). Infants become deeply attached to such toys and their tactile properties and smells are important and they cannot easily be replaced, even with exact duplicates (Cottis, 2017). Some children keep their initial transitional object into older childhood or even adulthood, others replace them with different objects that are used in different ways. In middle and sometimes older childhood, soft toys are common, with children giving them characters and personifying them and attributing mental states to them (Lee and Hood, 2021; Woodyer, 2018; Yamaguchi and Moriguchi, 2022). Some objects (such as video games) can be a gateway to social connections with others; others may help with identity development, both in terms of playing with identity (as with an avatar) and in terms of what possession of the object portrays to others; objects can also provide comfort and a sense of security. Attachment to objects is mostly positive; occasionally, object attachments can become unhealthy, signifying insecurity or addiction (Richins and Chaplin, 2021).

Hatfield (2010) describes how, for children who move home (and country) frequently, such objects, often teddies, have 'specific biographies [and] are an irreplaceable point of stability' (p. 253), with one teenage research participant saying that her teddy 'smells of home' and is 'what makes home home' (*ibid*.). Similarly, for children moving between separated parents, Garber and Prestcott (2020) use Winnicott's idea of transitional objects to describe the 'portable, idiosyncratic and beloved' (p. 189) toys and other objects that help give children some

sense of security and continuity when family life breaks down. From a legal perspective they argue that family courts should take seriously the important role of such objects in reducing stress. They give examples of where, in custody cases, a parent's insensitivity to their child's transitional object has led to them losing custody. As Jones (2018, p. 459) states, 'To deny means of comfort and attachment to children, and lingering memories of such, explicitly or implicitly, is perhaps to stress them, challenge their well-being'.

3.10.6 The material cultures of childhood

So far, this section has reviewed studies showing how designed toys can both contribute to and constrain children's development and wellbeing. Here we consider the literature on how commercial toys can contribute to children's wellbeing from a social and cultural perspective.

The relationship between the commercial toy market and children's wellbeing is linked to a broader debate regarding commerce and childhood, which itself is 'polarised and often sensationalised' (Department for Children, Families and Schools and Department for Culture, Media and Sport, 2009, p. 3). The commercial sector claims that it is responsive to children's desires, whereas counter arguments see children as exploited victims of commercial manipulation (Buckingham, 2011). In addition, children's consumerism is often read as 'a reflection of the alleged superficiality of contemporary culture' (Wilson, 2016, p. 282). However, Wohlwend (2020) argues that classed and educational dismissals of popular cultural toys and other objects can constrain children's capability to play with familiar characters, stories and objects in ways that enable participation in and the production of peer cultures and a sense of belonging. Children's consumption of toys (both digital and non-digital) is deeply embedded in their social lives and friendships and therefore wellbeing (Buckingham, 2011; Mertala *et al*., 2016; Wilson, 2016). As Wohlwend (2020, p. 391) notes, talking about 'transmedia' toys and consumer goods (that is, characters and stories that transcend films, toys, games, digital platforms, toothbrushes and more):

'At one level, children want to get their hands on appealing toys and games, to imagine themselves as beloved characters, to play favorite stories with friends, and to own the stuff that has the most cultural capital among their peers. At another level, children's play with commonplace toys tangles with the commercial strategies and profit motives of multinational media conglomerates partnered with toy manufacturers and retailers and spreads across digital media, social media, and popular media on interwoven information systems and global distribution networks.'

Research into how children value toys is one way of considering how they may contribute to children's wellbeing. Mertala *et al*. (2016) found that children chose specific toys based on four overlapping forms of value: functional value (how the toy would be played with, normally in line with the designers' intentions), market value (for example, seeing toys as collectibles, or valuing toys that have a lot of accessories), social value (whether they would be popular with their friends or promote social forms of play) and personal value (the meaning the toy has for individual children, often closely linked to their own experiences).

Wilson (2016) argues that possessing certain consumer items (in her research, this was mostly digital media) allows children, particularly those from poorer backgrounds and disrupted family lives, to engage in what Pugh (2009) terms an 'economy of dignity', that is, the ability to belong, to be heard amongst peers. Toys can also be sites of cultural and social participation (Wohlwend, 2020), and being able to take pocket toys into school can sometimes help at playtimes, either as a comfort and something to play with if children are unable to gain access to games, or as an attraction (Carter and Nutbrown, 2016).

3.10.7 Loose parts

The term 'loose parts' was coined by artist Simon Nicholson (1971), but the concept is older, being part of the 'discovery method' of education used in school classrooms. He also linked it to ideas of the time about architecture and design and the importance of working with those for whom the designs were intended in ways that could evolve a socially responsible form of architecture and design (Stott, 2019). The principle of loose parts is that the greater the quantity and diversity of variables available, the greater the degree of inventiveness and creativity and the more possibility for discovery. Such a principle was seen in practice in the adventure playgrounds of the time and from which Nicholson drew inspiration (Stott, 2019). The term can refer to almost anything whose use is not prescribed, but generally today is used to describe natural, recycled or waste materials that can be small (for example, shells or beads) or large (for example, pallets, tyres, netting). Nicholson, however, had a very broad conception that included

'materials and shapes; smells and other physical phenomena such as electricity, magnetism and gravity; media such as gases and fluids; sounds, music and motion, chemical interactions, cooking and fire; and other people, and animals, plants, words, concepts and ideas' (Nicholson, 1971, p. 30).

Such an expanded appreciation of the notion is echoed by Juster and Leichter-Saxby (2014), who give dirty jokes and creation myths as examples of conceptual loose parts.

The theory of loose parts is still a fundamental principle for playwork, particularly but not exclusively in adventure playgrounds (Brown, 2018; Bullough *et al*., 2018; Patte *et al*., 2018; Poulsen, 2022). However, by far most of the research into the benefits of playing with loose parts is in terms of evaluating it as an intervention in schools or early years settings, recognising that its reintroduction (this time into the playground rather than the classroom) has been influenced by playwork (Gibson *et al*., 2017) and has mostly been combined with staff training in a playwork approach or as part of broader interventions to improve playtimes in primary schools (Ardelean *et al*., 2021).

Whilst the concept of loose parts has many advocates, it is not without critique. Children's folklorist Judy McKinty (2016, p. 44) suggests that the trend for introducing loose parts into school playgrounds is an illustration of

'the movement towards adult-sponsored "free" play ... [and the] gradual shift away from skilled traditional games like Knucklebones, with rules and rituals and lore, and ball-bouncing games that take time to learn and play and require practice and passion to keep going, to more unstructured and imaginary play that anyone can do and which doesn't have to be learned.'

In terms of the benefits of introducing loose parts and their ethos into school playgrounds, the most robust evidence has been in terms of the increase in physical activity (Bundy *et al*., 2017; Engelen *et al*., 2018; Farmer *et al*., 2017a; Gibson *et al*., 2017; Hyndman *et al*., 2014a; Lee *et al*., 2020; Taylor *et al*., 2014). Two systematic reviews (Gibson *et al*., 2017; Lee *et al*., 2020) found that the evidence for other benefits (cognitive, social and emotional) was less convincing, mainly because there are not enough studies using robust, quantitative methods that have measured such outcomes. Nevertheless, qualitative studies have found that children engage in more complex play forms (Bundy, 2009; Lester *et al*., 2011; Luchs and Fikus, 2013; Verberne *et al*., 2014), and benefits include

greater collaboration (Mackley *et al*., 2022), creativity, engagement and enjoyment of playtimes, as well as making fewer demands on supervising staff to intervene in squabbles (Bundy *et al*., 2008; James, 2012; Lester *et al*., 2011; McLachlan, 2014; Sterman *et al*., 2020; Tawil, 2017). Several studies found that children played with larger groups with more diverse mixing (for example, Armitage, 2009; Farmer *et al*., 2017b; James, 2012; Tawil, 2017) and Snow *et al*. (2019) found that girls valued highly the introduction of loose parts into playgrounds that previously had been more suited to the forms of play preferred by boys.

3.11 Play, place and wellbeing

'Physical space is not a backdrop for childhood, but rather the two, space and childhood, are mutually constitutive … For any person, including a child, there is a dynamic rather than a static relationship between a physical place, its social make-up, and childhood as an ideal or imagined condition because space is at once a tangible, social, and discursive construction' (Gutman, 2013, pp. 249-250).

Following on from sections 3.9 and 3.10, this section extends the 'materialities, networks, relationalities … of children's lives' (McDonnell, 2019, p. 253) to consider the spatial. As with the opening quotation from Marta Gutman, a relational approach sees space as continually under construction, always in the process of being produced through entanglements of spatial practices, material and symbolic objects (present and absent, local and global), affects, desires, power relations and so on (Holloway *et al*., 2019; Lester, 2020; Malone, 2015; Soreanu and Hurducaș, 2016). As Malone (2015, p. 3) points out, 'Places shape children and children shape places'.

Chapter 2 (section 2.3.5) reviewed spatial perspectives on children's wellbeing, understanding wellbeing as emerging relationally from and with the spatial conditions of children's lives. Such a perspective has underpinned our proposed relational capability approach, which argues that if conditions are right for children to play, children have the *capability* to do and be well. In this section, we consider how children's play is productive of spaces that support wellbeing. Children's spatialities are embedded in power relations and this is particularly so in terms of where they play (Carroll *et al*., 2019; Lester, 2020; Pyyry and Tani, 2016, 2019; Soreanu and Hurducaș, 2016). When asked about what would make where they live a good place to be, being able to play and meet with friends is a priority for children (Carroll *et al*., 2019; Children's Commissioner for England, 2021; Children's Commissioner for Wales, 2018; Malone, 2015).

3.11.1 Place attachment

Place plays a key role in children's wellbeing (Jack, 2015; Weir *et al*., 2022), but this is often overlooked in policies that pay more attention to attachments with people (Jack, 2015, 2016). Although 'place' has been theorised in multiple ways (Bartos, 2013), it is often understood to mean the spaces that have significant meaning for people (Jack, 2016) and where they produce shared norms, experiences and stories (Bartos, 2013). A 'sense of place' and attachment to place are developed through all senses and is felt bodily and emotionally (Bartos, 2013).

Koller and Farley (2019) note the lack of research into children's place attachment; their review of the literature supports the assertion that place attachments 'appear to set the stage for strong social affiliations that nurture children's wellbeing' (p. 498). Many studies draw on Chawla's (1992) foundational work that sees place attachments as developing from a sense of security and belonging, social affiliation and opportunities for creative expression and exploration (Koller and Farley, 2019; Weir *et al*., 2022). Although place attachment often develops in spaces away from adults, there is a tension between the desire for autonomy and risk on the one hand, often

through attachment to secret spaces (see also Bauer *et al*., 2022), and a sense of security that can be gained from nearby adults. Attachment to place can offer stability at times of change and paying attention to children's experiences of place can be important when supporting displaced children (Weir *et al*., 2022). Even in situations of crisis, children can often find spaces to play, although some of these places are dangerous or unsuitable in other ways (Chatterjee, 2018). These spaces may be either formally provided or ones that children themselves find (Woolley, 2021); however, formally provided spaces can support the social connections that children need, given the hardships of disrupted friendships prior to displacement (Weir *et al*., 2022).

3.11.2 Play and space

Children's play is inherently spatial: all play *takes place* somewhere (and somewhen: space and time are intimately interwoven) (Lester, 2020; UN Committee on the Rights of the Child, 2013). This is more than a material and social emplacement, it is an ongoing and emergent process experienced through the senses, movement and imagination (Joelsson, 2022). However, spatiality has not been given much consideration in play research beyond children's geographies, possibly because of the dominant focus on the role of play in children's development (Woodyer *et al*., 2016). In their consideration of children playing with a snow pile, Rautio and Jokinen (2016, p. 42) note the rush to impose meaning (understood as value): 'When adults observe children drawn to snow piles, we see exercise, physical challenges, motoric development, social bonding, and the like – we tend to observe meanings and purposes'. They contrast this with a curiosity about presenting (in terms of making present) what matters. This tension is more evident in the research on children and space than in many of the aspects of play research considered up to this point, because it is in children's geographies that we find much of the non-representational research[112] arising from spatial and relational rather than individual perspectives. Nevertheless, there is still a predominance of research that considers how specific spaces affect individual children's wellbeing. A prime example is the interest in 'natural' spaces that has grown over recent decades.[113]

The instrumental focus and the attention in the research to specific and bounded kinds of spaces (nature, playgrounds, the street, and so on) perpetuates the notion of space as static backdrop. Research with children highlights how children participate in the production of shared spaces in ways that can contribute to the relational wellbeing of themselves, other human and non-human beings, environments and so on (Hooper *et al*., 2015; Juster and Leichter-Saxby, 2014; Malone, 2015; Wales *et al*., 2021). This, together with the understanding that play 'takes place whenever and wherever opportunities arise' (UN Committee on the Rights of the Child, 2013, p. 5) – meaning that anywhere can become a play space when children play there – presents problems for organising the material for this section. Given this, we do not consider the benefits of infinite kinds of spaces where children play,[114] particularly as this would overlap significantly with much of the material presented so far. Instead, we use the concept of 'third places' to explore how places matter to children, and then consider two fluid spaces where children play that they are likely to experience as third place: the street and immediate neighbourhood ('playing out') and digital spaces. Following this, we consider more broadly the growing literature on children and 'natural' spaces, which may or may not be experienced as third place by children.

The notion of third places has been used in some contemporary research with children (for example, Hooper *et al*., 2015; Kearns *et al*., 2016; Oliver *et al*., 2016; Shortt and Ross, 2021; Witten and Carroll, 2016; Witten *et al*., 2015; Witten *et al*., 2019) and draws on original work from Oldenburg (Oldenburg, 1989; Oldenburg and Brissett, 1982). Third places are understood as the places that are not home (first place) or work (second place, which could be seen as school for children, or any place where they are obliged to be). They are places of sociability for the sake of sociability. Many places that are not work or home could potentially be, but are not always,

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[112] See section 3.3.5.

[113] See section 3.11.5.

[114] See chapter 4 for a detailed account of where children play.

third places. For children, particularly, whose time and space are usually controlled by, or at least negotiated with, adults, the boundaries between places of obligation (second place) and of intrinsic sociability are blurred. In describing third places, Oldenburg in turn drew on Seamon's (1979) five characteristics of 'at homeness', summarised by Hooper *et al.* (2015, p. 35) as:

'• Rootedness: an intimate physical knowledge of the place, arising from the reoccurring cycle of departure and return.

• Appropriation: a taken-for-granted right to be present, and to determine who else 'belongs' and who does not.

• Regeneration: a place of restoration, refreshment, and psychological recuperation.

• At-easeness: an ability to express vulnerability as well as joy, and personalising the place to make it one's own.

• Warmth: companionship, emotional support, and care and concern'.

Recognising the temporality and conditional nature of some third places, these characteristics work well as a framework for reviewing the literature on play, place and wellbeing for children, even while it encompasses the potential exclusivity of children's chosen spaces of play (Dumas and Nelson, 2016; Horton, 2017; McDonnell, 2019). Research into adults' third places has clearly shown a relationship between their existence, the capability to access such resources and wellbeing, although children are relatively absent from such research (Hooper *et al.*, 2015). Given this, it seems fitting to use it to bring the idea of place and space back into the model of a relational capability approach proposed in this review.

3.11.3 Playing out and being well: neighbourhoods as third place

The benefits of time spent outdoors playing and roaming the neighbourhood are well documented. Shaw *et al.* (2015, p. 23) describe as 'startling', the positive correlation between UNICEF reported scores for children's wellbeing in various countries and the degree of freedom to move about and play in their neighbourhoods (that is, countries with higher reported levels of child wellbeing were also identified as places where children are more likely to experience greater freedom of movement and freedom to play out). This also shows the close relationship between children's freedom of movement and the capability to play out. Given this, some of the research cited here pays more attention to freedom of movement[115] but generally applies to playing out also.

As has been shown, children's capability to play out is affected both by the resources (suitable spaces for play) and by personal, social and environmental factors that affect children's capability to access such resources and opportunities. These entangled factors operate at the intersections of poverty, structural marginalisation, exclusion, racism, ableism, sexism, classism, heterosexism and childism (Aggio *et al.*, 2017; Allport *et al.*, 2019; Barclay and Tawil, 2021; Beetham *et al.*, 2019; Bornat and Shaw, 2019; Boxberger and Reimers, 2019; Brockman *et al.*, 2009; Dallimore, 2019; Dodd *et al.*, 2021a; Dumas and Nelson, 2016; Elliott and Read, 2019; Gerlach *et al.*,

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[115] We have used the term 'freedom of movement' in preference to the more common concept of independent mobility, because, from a relational perspective, there is little that is independent about children's lives. This issue is addressed in more detail in chapter 4.

2019; Giralt, 2011; Goff *et al*., 2014; Helleman, 2021; Horton, 2017; Horton and Kraftl, 2018b; Jansson *et al*., 2022; Kimbro and Schachter, 2011; Lee *et al*., 2015; Loebach *et al*., 2021; Mansfield and Couve, 2020; Memari *et al*., 2015; Mullan, 2019; Pacilli *et al*., 2013; Parent *et al*., 2021; Pinckney *et al*., 2018; Stafford *et al*., 2020; Villanueva *et al*., 2014; von Benzon, 2017; Wallace, 2018; Wang and Ramsden, 2018; Watchman and Spencer-Cavaliere, 2017; Zougheibe *et al*., 2021). Despite recognition of these exclusions in discussions on children's play patterns,[116] and on their effect on children's wellbeing (Allport *et al*., 2019), we found that such issues are less well addressed in the detailed studies on children who *do* play out (rather than those who do not or cannot). This is partly because many of the studies reviewed here do not identify some of these characteristics in their participants. Equally, it could possibly be precisely because of some children's absence from public spaces.

Rootedness

Through playing out, children inevitably build an intimate knowledge of neighbourhoods (Bauer *et al*., 2022; Jansson *et al*., 2016; Wales *et al*., 2021; Witten *et al*., 2015), including heightened spatial and ecological awareness (Foster *et al*., 2014; Malone, 2015). Children's engagement with spaces is embodied and affective, experienced through movement and the senses as well as the imagination through which spaces are imbued with meanings (Joelsson, 2022). Sentimental attachments to places can also be through memories of spending time with family members in particular spaces; at the same time 'secret' spaces are also important (Bauer *et al*., 2022). In this way children develop a *sense* of place, an affective connection and place attachment: 'It is when our bodies are being held in place through the influence of our emotional bodily sensations that we can begin to develop an emotional attachment to place' (Bartos, 2013, p. 90). Bartos (2013) describes how the sights, sounds, smells and tastes, together with a haptic sense of physical contact with landscape features through both touch and movement, work with emotions to produce a *feel* and *feelings* for places of significance, noting that such sensations are not always exclusively positive.[117]

Children who are allowed out without an adult exhibit more exploratory behaviour than those who are not (Mackett *et al*., 2007). Greater levels of freedom of movement and of playing out result in more familiarity with the neighbourhood and more intense neighbourhood relationships which in turn predict less fear of crime, a stronger sense of community and reduced feelings of loneliness in adolescence (Pacilli *et al*., 2013; Prezza and Pacilli, 2007). In some neighbourhoods, children become streetwise, knowing which areas to avoid and alternative routes out of places if situations became difficult, building a knowledge of how to co-exist in shared spaces:

'Familiarity with local streets and public spaces and the people inhabiting them gave children confidence that they could look after themselves. Sights that were once disturbing became less so "once they've been there for ages you kind of get used to it and it doesn't completely bug you all the time"' (Witten *et al*., 2015, p. 354).

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[116] See chapter 4.

[117] See also section 3.6.3 for more on the affective force of sensory-motor experiences.

Threshold spaces halfway between home and public space (for example, driveways, street verges and courtyards for those living in low to medium-density housing, or car parks, stairwells and foyers for those in high-density housing) are popular places of relative safety (Weir, 2023). Here children build an intimate knowledge of topology, including the possibilities of cracks and kerbs for skateboarding and other wheeled activities (Witten and Carroll, 2016; Russell and Stenning, 2022).

Research that uses photography, walking and mapping highlights children's intimate knowledge with their neighbourhoods and gives a glimpse into their names for notable places for playing (toponymy) (Bauer *et al*., 2022; Wales *et al*., 2021).

'The children, who all played out most days, were able to reel off 16 names for such spaces: the rec, bottom park, top park, top shop, top of the village, bog's pond, Taff's field, the cricket field, the footy pitch, the haunted house, the steps, the bars, lion's rock, the forest, sandy bay, and the river. To the adult researchers, the river, when visited, appeared to be more of a stream and the forest a small area of woodland, both of which hint at how differently children and adults experience spaces. However, the children's ability to name and describe what they do in these areas, suggested a strong and long-lived community play culture, where even simple features like some steps with handrails hold significant cultural value as places for meeting up and playing' (Russell *et al*., 2023).

Such detailed, embodied and everyday ways of knowing about neighbourhood landscapes engenders a sense of belonging and an attachment to place contributing to wellbeing (Bauer *et al*., 2022; Bourke, 2017; Kearns *et al*., 2016; Long *et al*., 2014; Malone, 2013, 2015; Wales *et al*., 2021; Witten *et al*., 2019).

Children's wellbeing through rootedness requires the capability to play out, which comprises both the freedom to play out and the necessary opportunities for encounters with landscapes, objects, and human and non-human others (Gill, 2021; Kyttä *et al*., 2012; Malone, 2015). This combination is recognised in Ungar's (2008, 2011) work on resilience, which he sees as a dual process of navigating towards resources that can sustain wellbeing and negotiating (not always explicitly) for such resources to be available. These conceptual tools provide further support for our relational capability approach: spatial and social justice for children rely on their capability to play, both in terms of opportunities being available and the capability to take up those opportunities and convert them into functionings.

Appropriation

Being able to claim time and space to play out fosters a sense of belonging and self-efficacy, protecting and enhancing wellbeing (Bourke, 2017; Hooper *et al*., 2015; Wales *et al*., 2021). Pacilli *et al*. (2013) suggest that children's freedom of movement contributes to their sense of wellbeing because it involves autonomous decision making, providing children with a means of expressing and developing their sense of agency and self-control. As Prezza and Pacilli (2007, p. 165) suggest, 'the control people think they can exert on their environment can be a source of wellbeing or, if absent, a source of anxiety'. An example of this can be seen in how children can develop 'microcultures' of play away from adults through creating games that are played frequently, with their own rules and roles, together with their own names for places such as 'Africa' or the 'peace tree' (Bauer *et al*., 2022). Another example of naming was the 'family tree', a tree just outside the apartment blocks and where the 'family' was a group of friends, and where the naming 'suggests an affective atmosphere, lodged in the materiality of a local tree, which had arisen from, and was constitutive of, the relational bonds of neighbouring children' (Witten *et al*., 2019, p. 1243). Children's freedom of movement enables them to meet up and play with other children more often (Fyhri *et al*., 2011; Waygood *et al*., 2020) giving them the capability to promote their own wellbeing (Brussoni *et al*., 2015; Gray *et al*., 2015; Tremblay *et al*., 2015).

However, children's capability to (re)appropriate space for playing depends on many factors. As described above, many children are excluded from playing out because the conditions are not supportive. Some neighbourhoods are experienced as 'broken', scary, or even disgusting by children, and leftover traces of drinking and drug use in play areas can make children feel they do not want to use the space (Gerlach *et al.*, 2019; Shortt and Ross, 2021; Witten and Carroll, 2016; Witten *et al.*, 2015). These places could not constitute third places for children where they felt a right to be present or have any control over who else was there. Other than spaces that are designated for playing, such as playgrounds and parks, children generally (re)appropriate space that has been designed for some other use. Carroll *et al.* (2019, p. 299) term this 'deliberate repurposing', subverting adult intentions for pavements, kerbs, car parks, walls and so on.

Where there is a lack of social cohesion and parental social networks in a neighbourhood these tend to be linked to heightened perceptions of social dangers in public space which itself reduces autonomy and the potential of becoming involved in local social networks (Alparone and Pacilli, 2012; Weller and Bruegel, 2009). Nevertheless, when children can – albeit temporarily – appropriate space for playing, they can imbue spaces with different value and meaning, disturbing 'taken-for-granted routines and boundaries and can therefore add to the liveliness and vibrancy of the city' (Pyyry and Tani, 2016, p. 206). In this way, children's appropriation of space is productive of more open spaces: in Pyyry and Tani's (2016) study, this was in terms of making a private shopping mall more public. Carroll *et al*. (2019) suggest this repurposing of public space is a prefigurative politics that enacts how spaces could be reimagined.

In a comparison of two settlements in north-east Wales, Long *et al.* (2014) found a strong correlation between children's satisfaction with their opportunities to play and their freedom of movement, which were both much higher in one settlement than the other. In one, both the physical landscaping of the estate and the culture (deliberately fostered by playworkers) is supportive of children playing out. As a consequence, there is a much higher sense of community cohesion and stronger social networks, contributing to wellbeing.[118] Similar findings emerged from a mapping exercise across four neighbourhoods in the same local authority (Bornat, 2018).

Regeneration

Third places offer a refuge from the obligations, pressures, stresses and boredoms of first and second place, a chance to relax either alone or with friends, particularly for older children (Arvidsen and Beames, 2019; Malone, 2015; Vanderstede, 2011). Children build attachments to special places of refuge, to which they return repeatedly, and which may have particular value for marginalised or at-risk children and youth (Malone, 2015).

'Hanging out is often pleasantly purposeless, and it therefore works against the demand of always needing to be productive: it is a getaway from the social order of the adult world. While hanging out, young people rarely have fixed plans or timetables and are therefore open to new encounters and changes of direction … Being with friends, not doing anything but relaxing and having fun, allows for creativity when the situation calls for it. This creativity does not need to be understood as human cleverness, but rather as a shared refusal to settle down into taken-for-granted patterns of being' (Pyyry and Tani, 2019, p. 1226).

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[118] See chapter 5 for more detail on this example.

In their study of young people's outdoor refuges, Arvidsen and Beames (2019) draw on theorising from Ingold (2000, 2011) to show how refuge is not something that is taken from a static and unchanging space, but is embedded in ongoing relations and practices. Children's entanglements with the world emerge along meshworks of lines and knots; knots are spaces that are interwoven into this meshwork and in a continuous 'state of "ongoingness"' (p. 403). The young people's spaces of refuge were seen as both sites of becoming disentangled through temporary knot loosening (getting away from it all, respite) and sites of becoming entangled through multisensory knotting in the spaces of refuge (a haptic engagement with outdoor spaces, although this can sometime also be alongside listening to music on phones).

For children, regeneration and recuperation might also be understood in terms of high states of arousal afforded by physical activity and risk taking. Time and greater freedom to play outdoors with friends, away from the direct supervision and control of adults, is consistently associated with improved levels of physical activity and fitness, and less sedentary behaviour (Brockman *et al*., 2011; Foster *et al*., 2014; Gray *et al*., 2015; McQuade *et al*., 2019; Wen *et al*., 2009). For example, Larouche *et al*. (2017) found that each hour per day spent playing outdoors was associated with an extra seven minutes of moderate to vigorous physical activity, and also with lower odds of peer relationships problems.

In addition, when children play outdoors without adult supervision, they are more likely to engage in adventurous and risky forms of play (Gray, 2020), increasing the risk of injury. For children up to 10 years of age, injuries were more common if they were unsupervised. However, when comparing incidence rates for medically treated injuries, they were lower per 1000 hours of unstructured physical play than for the same time for sports and active transportation (Brussoni *et al*., 2015). The benefits of engaging in risky and adventurous forms of play are many, including the capacity to cope with surprise and novel situations (Gray, 2020; Sandseter, 2010; Sandseter and Kennair, 2011), high physical activity levels (Gray, 2020; Sando *et al*., 2021), reduced anxiety (Dodd and Lester, 2021; Dodd *et al*., 2022) and a sense of belonging arising from shared episodes (Little and Stapleton, 2021). The thrill comes both from the fear and from the exhilaration at confronting the fear. This sense of vitality both from the thrill of risk taking and playing with fear more generally generates a sense of joy associated with wellbeing (Sando *et al*., 2021).[119]

Given the benefits of playing out, it follows that a decline in such opportunities may lead to negative and undesirable consequences. For example, just as time spent outdoors playing increases physical activity (Brussoni *et al*., 2015; Gray *et al*., 2015; Larouche *et al*., 2017), more time spent indoors is reported to result in more sedentary and passive pursuits, leading to decreased levels of physical activity among children (Gray *et al*., 2015), with growing concerns about higher rates of childhood obesity and associated health related problems that potentially extend throughout life (Farooq *et al*., 2018; Janssen *et al*., 2016; McQuade *et al*., 2019; Wen *et al*., 2009). The apparent decline in playing out away from the direction and intervention of adults has also been associated with a rise in childhood and adolescent psychopathology, including increased anxiety and depression (Gray, 2011), higher levels of hyperactivity and attention deficit, reduced sense of wellbeing and quality of life (Suchert *et al*., 2015).

Pacilli *et al*. (2013) report that lower levels of freedom of movement and autonomy in childhood are predictive of heightened feelings of loneliness as a result of the associated weaker sense of community, reduced sense of safety and fewer, more irregular social activities with friends. As active forms of transport have reduced in contemporary rural societies, so have children's connections to other children and adults in their communities (Holt *et al*., 2016). This erosion in children's freedom and autonomy results in parents accompanying their children more often (Fyhri *et al*., 2011; Carver *et al*., 2013), with higher rates of parental supervision in childhood being associated with higher levels of anxiety in adolescents (Alparone and Pacilli, 2012).

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[119] See section 3.7.6.

Given this, it can be argued that the capability for children to play out, through removing barriers to play and lowering the age at which children can play out free of adult accompaniment, would help to alleviate these associated health problems (McQuade *et al*., 2019; Tremblay *et al*., 2015).

At-easeness

Section 3.7.1 considers the literature on the benefits of the joy and vitality of playing for children's sense of being well, recognising also that, because of exclusionary nature of both play and public spaces, such joy is not experienced by all children (Dumas and Nelson, 2016; Horton, 2017; McDonnell, 2019). In addition, play generally allows players to experience a range of emotions in a relatively safe frame, including vulnerability.[120] By definition, playing out and hanging out are generally away from the eyes of adults, including researchers, and so there is little in the literature about the ability for children to express vulnerabilities.

However, sometimes the stories children tell researchers can reveal a glimpse, as with the example of the 'Ghost Forest', an overgrown plot of land that also had gravestones, giving rise to all sorts of scary stories: 'One child described breathlessly how he and a friend "were so curious that we tried to lift up a gravestone to see if there was a corpse, but changed our minds and ran away!"' (Wales *et al*., 2021, p. 189). Such a story shows how the scary can become an adventure with the support of friends in third places. It also shows a relational capability approach in operation, highlighting how 'such experiences of group glee … can boost children's emotional connections to people and places' and how they emerge from 'the significance of relational arrangements between people, objects and environments for their development of a sense of place' (*ibid*., pp. 191-192). It later became apparent, through a chance conversation with the owner of the plot of land, that he had been aware that children played there and had been actively managing it in support of this.

In terms of personalising places, children's appropriation of public space is usually temporary and so any personalisation is likely to be temporary also, with the capability of returning and picking up ownership on each occasion through repeated negotiations and co-habitations (Soreanu and Hurducaș, 2016). When adults pay attention to the materiality of children's play, it becomes possible to see traces of children's playful intra-actions with/in third places. Drawing on the work of Gayatri Spivak (2013), Rautio and Jokinen (2016, p. 41) describe traces as 'material suggestions that something else was there before'. Such suggestions are open-ended, allowing for many possibilities of meaning and 'most definitely matter, even if often deemed trivial in the absence of readily applicable meaning' (*ibid*.).

In the study by Wales *et al*. (2021) of a low traffic neighbourhood in Sweden, they show how this, together with a culture that supports playing, offers the capability for children to personalise places:

'The children's and community's agency appeared to be on display to them as they walked through the village. They pointed out how they or other children had appropriated and changed places to make the outdoor environment more fun for each other. This included chalk lines drawn on pavements, dens and treehouse built with or by other children and private football and basketball nets left standing in public areas. They also spoke of clean-up days in which locals "sort out" local playgrounds and tidy gardens together, displaying a sense of pride in showing us how they or other children had contributed to making the place tidier, more attractive or just more fun' (Wales *et al.*, 2021, p. 190).

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[120] See section 3.7.

Warmth

Section 3.9 considers the literature on friendships with others. Of particular interest to playing out is the way that it fosters the development and maintenance of social networks for both children and adults. Playing out increases social interactions with other local children and adults (Kearns *et al*., 2016; Pacilli *et al*., 2013; Wales *et al*., 2021), reducing loneliness (Hooper *et al*., 2015) and contributing to improved peer relationships as well as fewer difficulties with other children (Larouche *et al*., 2017). In addition, children who play out promote parents' social ties with other adults and contribute to other people's sense of community wellbeing. In this way, children can be the 'social glue' holding together diverse neighbourhoods (Nairn and Kraftl, 2016, p. 13), showing how children actively participate in and contribute to community social networks (see also Juster and Leichter-Saxby, 2014).[121]

3.11.4 The digital realm as third place

Digital play, like the internet, is often described using spatial metaphors, with language such as cyberspace, virtual worlds, the digital environment, chat rooms. Such spatial metaphors extend to phrases such as going *to* a web*site* or *on* the internet, rendering it 'fixed and singular, but also an ethereal and ubiquitous alternate dimension (Graham, 2013, p. 179). Spatial metaphors have been critiqued for their performative power, particularly in two aspects of governments' concerns, highlighted by Graham (2013). The first of these is that seeing the internet as a bounded, physical space implies that it can be regulated by territorial governments.[122] The second is that in terms of exclusion and equality, addressing the 'digital divide' becomes merely a matter of assuring the necessary hardware and connectivity rather than wider inequalities (Graham, 2013).

However, if space is understood as networked, complex and always under construction through the connections and actions of those who use and produce it, then it becomes possible to see how spatial metaphors are useful, and we can begin to consider children's relational digital ecologies of play (Marsh *et al*., 2020). As Grimes (2021, p. 7) notes:

'While there are important differences between virtual and real-world play, the insistence that these differences represent some sort of oppositional divide prevents us from building a more nuanced, historically contextualized understanding of contemporary children's play and the politics that surround it. It draws our attention away from the fact that when spaces are designed and allocated for children's play, whether in the digital realm or in the corner of a public park, they become subject to rhetoric, emotional appeals, ambiguities, and debates. In short, they share many of the same underlying politics.'

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[121] Chapter 4 considers the literature on such social ties in more detail.

[122] See, for example, the section on children and the internet in chapter 2, section 2.3.6.

Colvert's (2021) framework of playful possibilities in a digital world works with the multiscalar interrelationships among:

'• People, involving social practices and bodies;

• Products, including artefacts (e.g. toys, Apps) and networks;

• Places, situating people and products within immediate spaces and global multimedia sites' (Colvert, 2021, p. 14.

Children's digital and non-digital lives are intimately interwoven (Bailey, 2021; Burke, 2013; Ruckenstein, 2013; Stevens *et al*., 2017; Wilson, 2016), such that the 'flow between online, offline, school, home, formal learning and play is part of the everyday fabric of children's lives' (Marsh *et al*., 2020, p. 102). For some disabled and neurodivergent children, there is a clearer contrast between online and offline sociality, and there may be a stronger reliance on online networks (Ringland, 2019). In this way, it becomes possible to consider children's virtual play worlds and other aspects of their digital lives as distributed third places, a concept that has been taken up more broadly in digital research (Steinkuehler and Williams, 2006; Wexler and Oberlander, 2017; Williams and Kim, 2019).

Networked digital spaces are diverse and have the potential for exclusion and harm, just as offline spaces.[123] Stevens *et al* (2017) note that adolescents living in poor neighbourhoods characterised by violence and drug activity have limited access to third places offline and so online third places have the potential to 'provide both personal and social good, contributing to individual connectedness and a sense of refuge while promoting civic responsibility, community maintenance, and revitalization' (Stevens *et al*., 2017, p. 951). However, their study shows that rather than compensate for neighbourhood disorder, the social media platforms amplified it. Offline tensions could be ramped up through posts and also through separate 'hood' pages. Similarly, sexual harassment was frequent, and online bullying and sexual banter or harassment could easily spill over into violence offline (Stevens *et al*., 2017).

Whilst not dismissing the potential for harm, we review the literature on how virtual worlds and other connected digital games can support children's wellbeing through their inherent sociality (Carter *et al*., 2020; Markey *et al*., 2020; Robertson, 2021). Games such as Minecraft (Bailey, 2016, 2021), Club Penguin (Marsh, 2012) or Habbo (Ruckenstein, 2013) are about constructing and playing in a virtual world, and so the concept of third place is readily applicable; indeed the description of virtual worlds that Bailey (2021, p. 56) uses, in his study of a group of children playing Minecraft in a school-run after school club, is 'visual, three dimensional, virtual third places … that allow individuals to interact with a virtual landscape and with other players'. Drawing on ideas from Deleuze and Guattari (1988), Bailey shows how the game itself and the virtual worlds the children created with it, were part of a 'machinic assemblage' of the online and offline third places alongside the players, the researcher as adult, the classroom and its embedded meanings, the GoPro camera used as a research tool and also used by the children in their play, and absent others (including cultural references, the children's other online activities such as their YouTube channels, events in their lives outside of the club). Bailey (2021, p. 222) highlights the power of the game itself and its capacity to act as 'the virtual glue that held the club and the group together', where the ongoing construction of 'Banterbury' was 'linked to shared events, experiences and ideas, triggering memories and recollections of past times spent in the co-constructed space and the classroom itself' (*ibid*.).

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[123] We do not address here the risks and potential harms of online spaces such as cyberbullying, sexting and sexual harassment, sexual solicitation and grooming, online pornography, hacking and cybercrime and radicalisation (Gottschalk, 2019; Livingstone *et al*., 2017); they have been reviewed in chapter 2, sections 2.3.1 and 2.3.6.

Beyond virtual worlds, the concept of third place can also apply to social media platforms and to other video games that are either online or have an online presence. 'They are meeting places for children and young people, platforms for sociality … children hang out on the Internet just as they do outside it' (Ruckenstein, 2013, p. 482). Curti *et al*. (2016) suggest that the internet, the video game, and the chat room have potentially replaced streets, alleys and parks as the minimally regulated spatial *milieux* of childhood for the 'active and affective formation of social networks' (p. 183), a construction that fits well with the concept of third place. Children's online friends tend to be those they know offline, and having several connections means that it is easy to find people to play with in online games such as Fortnite (Carter *et al*., 2020). As with the section on playing out above, we have organised the literature on digital spaces as third places using the five characteristics of third places as summarised in Hooper *et al*. (2015). Given that the concept of third place is founded not only on the value of life beyond everyday obligations but also on sociality, this section focuses on children's networked digital play spaces.

Rootedness

Regular users of connected digital games or social media develop an intimate knowledge of the many games and platforms (including those beyond the well-known names in much of the research), particularly their language, lore, myths and rituals (Robertson, 2021), thereby engendering a sense of wellbeing through belonging. Bailey (2021) talks about how some of the children in his Minecraft after school club had far more knowledge of the details of the game than he did, and that they could use this to convince him to swap modes, occasionally, from Creative to Survival Mode, giving them different options, for example, to trade, for avatars to fly and to prevent other players spawning too many animals and slowing the game down. The children showed a familiarity with the language of digital play, some specific to Minecraft, others not, for example 'griefing' (anti-social behaviour) and 'spawning' (the creation of, for example, animals). Marlatt (2020, p. 6) also identifies the importance of Fortnite's layers of vocabulary and associated discursive practices that are necessary to 'think, speak, act like, and be recognized as a Fortnite player', such as 'port-a-fort', 'game packs', 'skins', 'harvesting tools', 'supply drops', 'llama loots' and many more, enacted through movements and strategies in the game.

Playing Club Penguin requires 'the ability to navigate a complex, multimodal screen' (Marsh, 2012, p. 81). The sending of postcards to potential new friends is less direct than a straight request, and allows for people to read profiles before accepting, one of the practices that helps to build a sense of 'normality and trust in social interactions [which] is built through routines and rituals and the sending of postcards, messages, and emoticons' (Marsh, 2012, p. 81). Equally, common practices in relation to unknown avatars include ignoring messages, throwing snowballs and telling them to go away.

For autistic children, online discussion groups, blogs and vlogs around a common theme (in this example, cosplay and associated fandoms) can offer a familiar space where the pressures of face-to-face social contact are minimised, the need to interpret body language and facial expressions is reduced and the ability to edit can give a sense of control and lessen social anxiety (Leyman, 2022).

Appropriation

The issue of who belongs and to what extent raises questions of inclusion and exclusion in online as well as offline worlds. Marsh's (2011, 2012) study of Club Penguin players highlights how offline status flows into forms of capital in the Club Penguin world. Those who use the free version are clearly separated from those who can buy clothes, 'puffles' and accoutrements for their igloos, creating similar forms of social capital as offline, particularly as paying members can attend member only events. Beyond this, cultural capital is built through knowledge of how to play the game, made easier through social capital. Those with the capacity to buy membership and extras (economic capital) were therefore more easily able to build other forms of capital and had more in-world friends than those without. The decision to accept a request to be friends with someone involves looking at their profile, and it is easy to see 'plain' players, those who use the free version and do not buy additional props. Although the children interviewed in Marsh's study asserted that this did not make any difference for them, they also said that most

other people would make judgements based on these forms of capital, implying perhaps a recognition of the unfairness. In the study, the number of friends participants had was directly related to their consumed extras.

For the autistic children in Ringland's (2019) study of Autcraft, the children felt they had a right to be there, and that they could adapt and personalise the space. Autcraft is a semi-private server on Minecraft for autistic children and their families which also has connections with other platforms such as Youtube, Twitch, Facebook and X (formerly Twitter). Often, such a sense of belonging is not apparent in offline play situations where social, cultural and physical environments are designed for neurotypical children and therefore constrain neurodivergent children's capabilities for playing. In Autcraft, they can engage in social forms of play because the space accommodates them, raising a challenge to the thinking that autistic children are incapable of such play (Ringland, 2019).

When players transgress the often tacit conventions for behaviour, they can face strong censure. Bailey (2021) tells the story of an incidence of 'griefing' in Minecraft where one of the players spoiled waterslides that others had constructed and spawned many wolves, slowing the game down. The transcript of the discussion following this shows how the children felt strongly about appropriate ways of behaving and found different ways of responding, from high emotion, the desire to punish the culprit (including by banning them from the club) and using sophisticated cultural references as humour to diffuse the situation.

At the same time, a sense of belonging can be engendered through joint endeavours and shared rituals. Bailey (2016) describes the humorous use of parodies of songs, for example to tease another player (who was secure in his sense of belonging) for supposed cruelty towards a sheep imprisoned in a 'sheep hotel'. In this study, the children were physically in the same room whilst playing Minecraft on separate laptops. One child started singing 'Free the sheep' to the tune of 'Do They Know It's Christmas' (Geldoff and Ure, 1984) and other players laughed and joined in, playing with the words and creating a sense of community and belonging, winding up the player who had 'imprisoned' sheep on towers, playfully, powerfully but temporarily separating out the 'cruel' player from the group. Bailey (2016, p. 68) notes 'a mischievous incongruence in the appropriation of a song originally about world famine for the relatively frivolous purpose of highlighting the imaginary plight of a pixelated sheep'. The same group of children also often sang (and adapted) 'Everything is Awesome' from the Lego movie (Tegan and Sarah, 2014) 'as an inclusive celebration for the club's community' (Bailey, 2016, p. 69).

Another example from Marsh's (2011, 2012) study is when avatars in Club Penguin join together on an iceberg and try to tip it by drilling or jumping up and down, often with typed and shared phrases such as 'Tip it!'. Such rituals create a sense of belonging.

Regeneration

One of the attractions of social networking sites and connected digital play for older children particularly is that they can offer opportunities for peer sociality that can 'bypass the social and spatial boundaries imposed by parents and educators' (Wilson, 2016, p. 285; see also Colvert, 2021; Ruckenstein, 2013). This can be particularly true for looked after children, many of whom move frequently and so have difficulty maintaining social contacts other than through social media and video gaming. Here, access to these and other online platforms such as YouTube (for both music and videos) can equate to a form of self-care, helping young people 'deal with anxiety … and also in constructing a liveable niche in which "to be" in difficult circumstances … these technologies were sometimes seen as providing refuge, places that were perceived to be safer than the environments immediately surrounding them' (Wilson, 2016, p. 290).

In acknowledging the entanglement of offline and online third places, Arvidsen and Beames (2019) discuss how the places of refuge that children seek offline allow a disentanglement from first and second places and yet still remain connected through their phones. This may be for connecting with friends or family (on their terms) and can also be for listening to music on streaming platforms in ways that add to the sense of refuge.

At-easeness

Building virtual worlds and creating content for social networking sites allows children to personalise the space and make it one's own (Hooper *et al*., 2015; Leyman, 2022). The attraction of Habbo, for example, is the opportunity for spatial manipulation and control, often in ways that are not available offline due to adult controls of time and space. Building your own private rooms and furnishing them (with items either bought or exchanged) allows for personalisation of spaces and the opportunity to invite friends into your room (Ruckenstein, 2013). Nonetheless, as with offline third places, the power of adults and particularly of capital is ever present and the business interests of game and platform creators may not always be aligned with those of children (Colvert, 2021; Grimes, 2015, 2021; Marsh, 2012; Ruckenstein, 2013).

In addition, digital third places can offer the opportunity for children to express their vulnerabilities in many different ways. Adolescents tend to use direct and private channels of communication for self-disclosure (for example, direct messaging or instant messaging platforms such as Snapchat). Self-disclosure requires expressing vulnerability, and can help release pent up feelings, promote intimacy and reduce distress and other negative emotions (Yau and Reich, 2018).

Bailey's (2021) study of a Minecraft after school club tells of an episode where one of the popular members of the group enacts his visceral 'crippling fear' (p. 215) of Endermen in the Minecraft game (which he had previously spoken about), screaming and pushing his chair away, running away from the screen and curling up on the floor. He recovers quickly as the rest of the group find the fear amusing and engage in banter, offering him a way back into the game and the group. The group discussions also cover topics such as death and sex education.

A key opportunity in digital third places is the opportunity to play with identity. Bucknell Bossen and Kottasz (2020) found that pre-adolescents and adolescents who create their own content on social networking sites such as TikTok did so to expand their social networks, to exhibit their creativity and to experiment with their identity. Ruckenstein (2013) notes how, in Habbo, children can be younger or older, and can play professional roles.

Playing with identity can include both a deliberate playful deterritorialization of offline identity and an opportunity to experiment in relative safety with emerging identity. For example, LGBTWQIA+ social networking sites are seen as important third places by non-heterosexual young people where they can 'explore sexuality and gender and engaging in forms of queer worldmaking' (Robards *et al*., p. 153) and negotiate their identities (Downing, 2013).

Ringland (2019) talks about how disabled and neurodivergent children can experiment with their avatar's identity in Autcraft, potentially escaping offline discrimination and social exclusion. Autcraft (as with Minecraft) allows children to construct worlds that do not over or under stimulate those with sensory processing difficulties (for example, being able to control the brightness of the screen and volume), and socialising with others does not require eye contact or physical touch.

The concept of 'friendship' becomes a little blurred when applied to online relationships. For example, Facebook uses the term 'friend' to describe any connection, however remote. In digital connected spaces, children play both with their offline friends and with friends they have connected with online and have never met offline. Nevertheless, in their review of the literature on adolescents' online friendships, Yau and Reich (2018) found that the key characteristics of friendships found in the literature on offline friendships were also evident in online friendships, namely self-disclosure, validation, companionship, instrumental support, conflict, and conflict resolution. At the same time, the complexities of relationships offline are also mirrored online, further complicated by different social conventions, invisible others and the ever-present possibility of being misunderstood in online communications, together with the vagaries of algorithms and popularity metrics (Colvert, 2021).

Despite this, even the youngest of players show they understand nuances of communications in ways that may not be readily apparent to adults. For example, in Marsh's (2011, 2012) study of five- to eight-year-old children playing Club Penguin, it was clear that social interaction is a key part of the game. One example is where players position their avatars in relation to others. In crowded situations, there was little order to this, but elsewhere, avatars respected social distance unless it was clear they wanted to move or play together, either in pairs or groups, something that required navigational skills. Equally, there were rituals of greeting and parting, often again through positioning of avatars.

In another example, Bailey (2021) tells the story of one of the players in a Minecraft after school club making a headstone for his horse that has died. The other children all gather round the headstone and recreate the formality of a funeral, producing the wording on the headstone, throwing roses onto the grave, expressing condolences and making speeches.

3.11.5 'Natural' places

An initial search in an academic database for the words 'children' and 'nature' in the abstract of peer-reviewed, academic articles published in the last five years yielded over 8,000 results; narrowing it by adding the term 'play' in the abstract yielded 600. Although many of these would not be directly relevant to this review, it does give an indication of the level of research interest in this topic. Generally, the literature voices concern that children are losing their connection with nature, mostly through increasing urbanisation and the lure of digital media, and that this will have serious consequences both for their health and for the health of the planet (Charles and Louv, 2009, 2020; Edwards *et al.*, 2020; Frumkin *et al.*, 2017; Larson *et al.*, 2019; Louv, 2005; Moss, 2012).

Such concerns are not new and can be seen in the Victorian public parks movement in the mid to late nineteenth century, which arose in response to the growth of industrial towns and cities and concern for the health and morals of working class populations (Lambert, 2014). Equal concern for the effects of urbanisation can be seen in the second half of the twentieth century, for example in Kevin Lynch's classic UNESCO supported 'Growing Up in Cities' project, the work of geographers such as Roger Hart (1979) and Robin Moore (1986), and Louise Chawla's revisiting of Lynch's original research, which was also supported by UNESCO (Chawla, 2002). More recent concerns have included the impact of digital technologies on children's lives (Edwards *et al.*, 2020; Larson *et al.*, 2019; Louv, 2005).

Systematic reviews of the benefits of children's contact with nature note they vary in quality, with a lack of consistency in terms of outcome measures and instruments, participant characteristics, definitions of 'nature', interventions and time spent in natural surroundings (Dankiw *et al.*, 2020; Gill, 2014b; McCormick, 2017; Tillmann *et al.*, 2018), and have been critiqued for relying on self-reporting, not using control groups, not allowing for confounding factors and not doing follow-up studies (Roberts *et al.*, 2019), for risk of bias (Mygind *et al.*, 2021) and for mainly cross-sectional rather than longitudinal studies (Tillmann *et al.*, 2018). Some look at contact with

nature, others at structured activities and others at playing in natural environments (Gill, 2014b). It should also be noted that not all children have an affinity with nature, for example, some find woodlands scary or claustrophobic, often because of a lack of familiarity or fear passed on from parents, but also in a more positive manner, in connection with their own myths, legends and adventurous playing (Lisewski-Hobson and Watkins, 2019; Milligan and Bingley, 2007; Roberts *et al*., 2019).

Nevertheless, although some sources urge caution in interpreting results and causality, it is possible to identify and summarise from each review some evidence for correlations of both being and playing in natural environments as:

- physical activity, fitness and development of motor skills, creativity, and social and emotional benefits (Dankiw *et al*., 2020);

- attention restoration, working memory, social affiliations, self-discipline, improving behaviour and symptoms of ADHD, improving academic performance, offering relief from stress (McCormick, 2017);

- positive (and sometimes negative) affect, self-esteem and confidence, stress reduction and restoration, social benefits and resilience (Roberts *et al*., 2019);

- positive relationships, socially adaptive behaviours, social competences, emotion management and expression, behavioural inhibition, thoughts of self, overall socioemotional adaptation, and symptoms of autism and ADHD, working memory, and also a deeper and longer engagement in play (Mygind *et al*., 2021);

- symptoms of ADHD, overall mental health, reduced stress, resilience, health-related quality of life (Tillmann *et al*., 2018);

- environmental knowledge and more pro-environment attitudes as an adult (Gill, 2011, 2014b).

Although not covered in these systematic reviews, some studies have suggested an association between regular time spent in green spaces and lower instances of myopia (short-sightedness) in children (Dadvand *et al*., 2016; Lingham *et al*., 2021; Sherwin *et al*., 2012). In terms of playing away from adults, Bauer *et al*. (2022) found that natural environments afford opportunities for playing in secret and hidden places with fewer adult-imposed rules and where they can actively participate in creating new worlds with their own microcultures of rules and roles, facilitating social learning.

In Conn's (2015) study of autistic writers' memories of their childhoods in their autobiographies, nature was mentioned by almost all the writers as somewhere that can provide respite from 'the din of people's talk and movement' (Conn, 2015, p. 1198) and where the predictable rhythms of, for example, sea waves, or investigating creepy-crawlies, grasses and so on offered a sense of calm, constancy and safety. One of the writers found parallels between nature and autism in 'the flapping that can be caused by the wind, the non-responsiveness of nature to social circumstances and its lack of speech' (*ibid*.).

In her review, Chawla (2015, p. 435) links the benefits of nearby nature contact to Nussbaum's ten central capabilities:

- 'Life: … increased birth rate, lower infant mortality;

- Bodily health: … lower rates of asthma and allergies in some settings, Vitamin D production from sunlight, shade protection from excessive sun exposure, better motor coordination and balance, more moderate to vigorous physical activity, healthier weight, more stable body mass index;

- Bodily integrity: … more walking and cycling on green streets or near parks, free exploration and manipulation of the environment;

- Senses, imagination and thought: … better concentration, less inattention and impulsivity, imaginative play, resourceful use of nature's loose parts, rich multisensory experiences in the natural world;

- Emotions: … development of place attachments, experiences of environmental competence, green retreats for emotional restoration, less depression, less psychological distress, less stress, greater sense of energy;

- Practical reason: … participation in evaluating and planning healthy environments;

- Affiliation: … more cooperative and creative social play;

- Other species: … direct exposure to the natural world;

- Play: … more outdoor play in green neighborhoods, more creative play in natural settings;

- Control over one's environment: … freedom to appropriate undeveloped land that is not controlled by adults, inclusion in participatory planning and design.'

A capability approach redirects focus away from an individual problem, for example in Louv's (2005) highly influential medical analogy of Nature Deficit Disorder, and towards a responsibility to help create the conditions (that is, the capability) for children to play in natural surroundings. Chawla (2015) highlights the importance of research with children using creative methods that can begin to take into account the ways they use – and want to use – local green spaces. Many of these are not destination places but are 'mosaics of mundane nature [that] filled marginal and interstitial spaces' (p. 432) and as such are highly valued. This returns us to the question of what counts as 'contact with nature'.

Critiques of the discourse of children's growing disconnection with nature

Critiques of the idea that children are losing their connection to nature, and associated material-discursive practices, are several (for example, Kraftl *et al*., 2018; Lester, 2016b; Malone, 2016a; Rautio *et al*., 2017; Taylor, 2017). Some question what is meant by 'nature' and point out that urban children can find it 'in the cracks and crevices of cement, in the footprints of foxes and city rabbits' (Rautio *et al*., 2017, p. 1379). However, as Rautio *et al*. (2017) argue, neither the disconnection argument nor its denial is helpful, as they both perpetuate what they term the 'anthropocentric predicament' (*ibid*.) in ways that are counterproductive (Fletcher, 2017).

Here, we arrange critiques of this anthropocentric perspective across three interrelated points. The first is a critique of the romanticisation of nature. Taylor (2017, p. 61) notes how

'Nature is a very seductive idea. Within Romantic western cultural traditions, nature has been aestheticised, valorised, and sanctified. It has come to stand for everything pure, good and innocent that imperfect human society is not. This bifurcated concept of pure nature as an antidote to corrupting society carries a compelling force of moral authority.'

When the romantic idea(l) of nature meets the equally romantic idea(l) of childhood innocence, and particularly play as a defining feature of childhood innocence, it creates an even more powerful and seductive trope (Harwood *et al*., 2019; Kraftl *et al*., 2018; Lester, 2016b, 2020; Taylor, 2013, 2017), often wrapped up in nostalgic memories of adults' own childhood freedoms (Cutter-Mackenzie-Knowles *et al*., 2020; Novotný *et al*., 2020). Dickinson (2013) shows how such memories are classed, racialised and gendered, and that their assumption of an ideal 'original' state that begins with their own childhood obscures a long history of environmental degradation. For cultures and classes who live on/off/with the land, such a romantic separation does not exist in the same way that it does for 'predominantly urban and highly educated environmentalists' (Taylor, 2017, p. 65).

The romantic idea(l) of nature and childhood innocence only applies to some children some of the time, however. For others, the obverse pertains: some children's unruly animal ('natural') behaviour needs taming to become more cultured (Lester, 2016b). Such contradictory constructions can sometimes play out for all children at different times and contexts, but are also racialised, gendered and classed (Pérez del Pulgar *et al*., 2020; Shillington and Murnaghan, 2016).

A second critique extends the first to question the nature-culture binary it perpetuates.[124] If the disconnection from nature is seen as a result of urbanisation, new technologies and other human practices (Chawla, 2015; Edwards *et al*., 2020; Louv, 2005), nature becomes the opposite of these human productions, to the extent that Zystra *et al*. (2014, p. 121) argue, '"Nature" may be therefore conceived as the biophysical environment as it exists without human beings.' Although the authors do go on to acknowledge that this kind of distinction perpetuates the divide between humans and nature, the demarcation remains necessary for them to build their (and many others') argument about the importance of reconnecting with nature.

This leads to the third critique, that of the notion of 'disconnectedness'. As Fletcher (2017, pp. 228-229) notes, 'The idea that one could be disconnected from "nature," therefore, is fundamentally grounded in a culturally specific nature-culture dichotomy'. The irony is that the nature-culture dualism 'exacerbates a sense of separation from the very entity with which it seeks reconciliation' (*ibid*., pp. 226-227). Environmental scientists are now clear about the inextricable entanglements of humans and the environment and the minority world's devastating impact on 'the Earth's geo- and bio-systems through our over-use of fossil fuels, chemical fertilizers and a multitude of other damaging industrial/agricultural practices' (Taylor, 2017, p. 66). Such an already implicated and emergent intrarelationship raises questions for the concept of 'connectedness' or its lack. Rautio (2013b, p. 446) neatly outlines a non-romantic and non-exceptionalist perspective: 'Being with nature … is not a pleasant, idyllic state of harmony, nor is it savage battling over survival of the fittest. It just is'.

Returning to critiques of dominant productions of children's play and nature, Lester (2016b, p. 63) provides a summary:

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[124] See chapter 2, section 2.2.3.

'Nature and by inference humans are fixed: positivism constitutes nature as a passive object that can be fully known and used to meet human ends, while constructivism attributes agency purely to human activity. The consequences of this are profound in establishing idealized and nostalgic figurations which position both children and nature as vulnerable and in need of rescuing. Playing is commandeered to the child- and nature-saving movement and becomes embroiled in sentimental and romantic spatial productions.'

It could be argued that the language of concepts such as nature deficit disorder (Louv, 2005; Charles and Louv, 2009, 2020) and of disconnectedness are less important than broader issues of environmental degradation and children's wellbeing (see, for example, Gill, 2012), but as Haraway (2016, p. 12) says, 'it matters what stories make worlds and what worlds make stories'.

Moving beyond human exceptionalism requires taking seriously the idea that we are always already implicated in the complex and entangled meshwork of human and nonhuman forces (Malone, 2016a, 2016b; Murris, 2016a; Rautio *et al.*, 2017; Taylor, 2017), although such intrarelationships are not equal. A study of children and trees at an adventure playground noted how children were affected by what the trees offered for playing and relaxing, and also how the land and trees were affected by children's use, evident through 'growth snapped, bark picked, trunks scorched, earth worn smooth' (Goodenough *et al.*, 2021, p. 238).

Furthermore, Rautio *et al.* (2017) question the often-expressed notion that children have an affinity with nature (Gill, 2011; Hordyk *et al.*, 2015; Ward, 2018). They offer the example of a visit to the local urban waste and recycling centre with a group of six- to eight-year-old children and one boy's viscerally angry reaction on seeing the circling seagulls, '"That's a SHITgull!" said the boy pointing at the bird. "My dad says they're SHIT birds and they ought to be SHOT"' (Rautio *et al.*, 2017, p. 1384). The entanglement of boy, nature-as-bird, waste and death also includes the researcher's knowledge that the boy's father had recently split with his mother and moved away, as well as the boy's knowledge that the researcher took care of injured birds. The authors add, 'The "shitgull" was an event of ill-being for all involved; yet it was an event of the utmost interdependence. An interdependence gone wrong' (*ibid*.).

Relational, posthuman and new materialist perspectives show how 'agency' is distributed, emerging from encounters between children, landscape features, desires and discursive practices. Rather than seeing the 'child in nature' (Harwood *et al.*, 2019, p. 58), attention can turn to the entanglements of bodies (human and non-human), materialities (both 'natural' and manufactured) and affect (Harwood *et al.*, 2019; Malone, 2016a, 2016b; Rautio *et al.*, 2017). Without diminishing the importance of research into the benefits of time spent with/in nature, the binary separation can be disturbed and rethought through paying attention to and taking account of small, everyday and even mundane encounters. Such research works with the entanglements of, for example:

- a big, smooth rock, gravity and the squeals and bumps of children sliding down it (Änggård, 2016);

- fences, brambles, ivy, bushes, trees, worn ground and cultureplace (Goodenough *et al.*, 2021);

- Go-Pro, snow and small child (Harwood *et al.*, 2019);

- springtime, pavements, poison, children, a dying rat, death taboos and unequal lives (Nelson, 2020);

- 'snow, children, woolly mittens, scarves, boots, snot, rocks, ice, frost, dark nights, and lampposts' (Rautio and Jokinen, 2016, p. 44);

- an overgrown plot, gravestones, masonry and children's mythmaking in the Ghost Forest (Wales *et al.*, 2021).

A lengthier example from a study by Russell *et al*. (2021, p. 190), a story of boys making a potion at an adventure playground and filmed on a playworker's phone:

'The event emerges through the intra-action of present (and absent) bodies and their desires; the materiality of the cup and its contents, natural and otherwise, gathered opportunistically from whatever was to hand; the contextual other-world of witches; the playground's history, culture and atmosphere; the sun and its capacity to shine through the deep red potion in a satisfying manner; the materiality of the camera, clearly present and included in a sophisticated way as an equal player together with its assumed but physically absent audience; the highly playful, conspiratorial performance of a disruption of almost-taboo social rules about sweaty, smelly bodies and how we must tame them; the evident enchantment of the playworker in the extended chuckle included as a part of the video clip and much more.'

Arvidsen and Beames (2019) talk about how children's places of refuge (which included playgrounds, paths and schoolyards as well as 'natural' spaces) both loosened the entangled knots of other pressures on their lives (such as school or family) and strengthened knots of sensory connections with wind, sun, landscapes, vegetation, animals, light (and also their phones).

Such examples show both the always already connectedness of children to natureculture[125] (Duhn and Quinones, 2020; Haraway, 2016; Harwood *et al*., 2019; Malone, 2016b; Murris, 2020; Reinertsen, 2020) and can offer ways to account for this, foregrounding relationality at several intersecting scales. Using such approaches to complement, rather than dismiss, research into the benefits of contact with nature offers a pathway back to ideas about a relational capability approach and how this is intertwined with the politics of spatial justice, in similar ways to the material on playing out in section 3.11.3. The question asked is not so much 'what does it mean?' but 'how does it work?' (Lester, 2020). In this sense, the account-ability for children's play[126] operates in tandem with a response-ability,[127] what Haraway (2016, p. 78) calls 'the capacity to respond', and Barad (2007, p. 394) 'an ongoing responsiveness to the entanglements of self and other, here and there, now and then' (see also, for example, Nelson, 2020; Phillips, 2020; Lester, 2020; Russell *et al*., 2018, 2019).

Bringing ideas of nature-childhood-culture entanglements together with relational approaches to wellbeing, we end this section with a review of a study by Pérez del Pulgar *et al*. (2020) that can bring together the importance of the social and political production of space, the move towards the greening of cities, relational wellbeing and a relational capability approach.

The study illustrates how class, politics, history, capital and (green) regeneration affect the purpose, design and use of two relatively new parks in Barcelona, Spain. The park in the more working-class area ostensibly had fewer 'green' elements than the park in a regenerated middle-class neighbourhood. However, many other factors affected the extent to which, and how, children could and did play there. The park in the diverse, working-class neighbourhood grew out of 'a municipal effort to support the existing social and material capital while improving the community's access to equipment, social housing and public spaces' (p. 13) and drew on existing networks and community associations in its design. The researchers observed greater relational wellbeing through much more use, and through

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[125] The term 'natureculture' is often used to emphasise the inseparability of nature and culture.

[126] See chapter 4.

[127] See chapter 5.

'children's sense of safety, control, familiarity, knowledge and attachment to the material environment and, in turn, their contact with "nature", freedom of movement, improvisation, fluidity of interactions, and a supportive surrounding social network' (Pérez del Pulgar *et al*., 2020, p. 13).

The other park, however, was part of a public investment aimed at attracting private investment in the area where regeneration has destroyed old economic, material and social structures. The park was architect designed and included several 'natural' features for children to play in as well as designated play areas. Here, the researchers observed much lower attendance (particularly during the week), with

'high rates of supervised play, few movements across space, a strict arrangement of the types of play, and scarce interactions with the social and material environment at most times of the day and week – conditions that point toward a lower level of relational wellbeing built over time' (p. 12).

The study shows how universal benefits of greening spaces for children's play cannot be assumed, highlighting differences through detailed ways of accounting for how the space is used. The different economic and ideological intentions for the space, different levels of community cohesion, social networks and history, together with different lifestyles described in the study illustrate how a capability approach might offer more than a universal application of theoretical assumptions about the relationship between natural environments, children's play and wellbeing. The existence and design of the parks is only one part of children's capability to realise their own wellbeing. Without the capability for communities and municipalities to enact any response-ability (understood as the capacity to be responsive) and without being able to convert the opportunity into actual full use, children's relational wellbeing will be moot.

3.12 Returning to playing and being well

Despite the seeming gulf between different disciplinary approaches to researching the relationship between children's play and their wellbeing, there is remarkable similarity – and caution – in the conclusions. Positivist studies are cautious in the claims they make, and, as with many constructionist and post-constructionist studies, mostly acknowledge the interdependence and relationality of neural processes, senses, movement, affect, cognition, other humans, non-humans, objects, historical-cultural contexts, politics, policies and spaces. Children do not exist and develop in isolation from the rest of their worlds, and playing can both absorb and reproduce the actualities of children's everyday lives and offer the opportunity to imagine them differently.

The summary offered below is overly simplistic and generalised, but will give a flavour of how embedded play is in children's wellbeing, and its role in Nussbaum's (2007) ten core capabilities of Life, Bodily Health, Bodily Integrity, the Development and Expression of Senses, Imagination and Thought, Emotional Health, Practical Reason, Affiliation (both personal and political), Relationships with Other Species and the World of Nature, Play, and Control over One's Environment (both material and social):

- play matters to children;

- the pleasure of playing is more than indulgence, making a significant contribution to mental health and motivating further playing;

- the skills, dispositions and bodily integrity that are both needed for and honed through playing can make playing more satisfactory and contribute to wellbeing beyond play;

- play's interrelated and interdependent embodied, sensual, dynamic and affective dimensions can add to its vitality and contribute to physical health and strength, emotion regulation and healthy stress response systems;

- through playing children can build attachments to peers, other adults, non-human animals, objects and places, contributing to children's sense of security and belonging and of being able to affect their own lives and the lives of others;

- play can operate as a form of participation in everyday life, contributing to the production of neighbourhoods and social networks;

- nonsense is valuable and the 'what if?' potential of play supports creativity and innovation, which can contribute to evolution;

- playing has both intrinsic and instrumental value, and whilst it is not helpful to see these forms of value as binary and mutually excluding opposites, instrumental value can be realised more effectively if intrinsic value is recognised;

- play, whilst for the most part offering such benefits, should not be romanticised since it is ultimately amoral and can reproduce the inequalities and cruelties that exist outside of play.

Play is not offered here as a panacea for the injustices that children face both because of their status as children and due to other intersections of injustice. The current economic, geopolitical and environmental crises present real threats to children's capability for life, bodily health, bodily integrity and other elements in Nussbaum's list that depend on just access to adequate food, housing, healthcare, education and other basic public services as well as financial, social and environmental security. Nevertheless, it is included in Nussbaum's list precisely because it can contribute in significant ways to wellbeing.

Nussbaum's conceptualisation of human capabilities situates children as incomplete adults-in-waiting (Murris, 2019) and, as previously discussed, presents an individualistic and humanist perspective. In taking the liberty of adapting this to be more radically relational, our proposed model builds on the concept of 'capabilities' as the conditions that support children to do and be well *as* children and in the future. In addition, in decentring the human and challenging human exceptionalism, a relational theorising of wellbeing considers how wellbeing is 'assembled through the conditions of everyday life' (Coffey, 2020, p. 69), where conditions could be read as capabilities, in dynamic and never-finished ways.

As we stated in chapter 2, a relational perspective, drawing on non-representational theories suggests that wellbeing does not arise from the environment but emerges *as* environment (Andrews *et al*., 2014). The flows and intensities of affect that arise from encounters in-between bodies (human and non-human), material objects, landscapes, histories, atmospheres and so on, produce feeling states that affect the capacity for engagement, the power to affect and be affected by the ongoing doings of life: feelings of being well or not being well. If playing

is seen as one of the ten central human capabilities (for all ages) in Nussbaum's (2007) list, then a capability approach to wellbeing would need to pay attention to the spatial, temporal and affective conditions that support opportunities to play.

We have argued elsewhere that paying attention to and working towards these conditions/capabilities takes place through the indivisible processes of account-ability and response-ability (Russell *et al.*, 2019, 2020), described as:

'the intertwined processes of *accounting* for children's ability to find time and space for playing, both in public space generally and in the institutions of childhood, and *responsiveness* in terms of rethinking habits and routines so that children can play, particularly in their neighbourhoods. Because of the way public space is organised, children are often excluded from playing out; this makes their right to play a matter of *spatial justice*' (Russell *et al.*, 2020, p. 14).

Chapter 4 reviews the literature on children's play patterns, addressing the issue of how to account for children's play and chapter 5 considers some examples of responses that have been enacted.

Chapter 4

Children's play today

4.1 Introduction and a framework, context and structure for the chapter

Chapter 3 considered the relationship between children's play and wellbeing and built on the proposal in chapter 2 for a relational capability approach. Capabilities, drawing on the work of Sen (2004) and Nussbaum (2007), refer to the capability for children to do and be well *as* children (in the here and now) *and* in the future as they grow older. Thinking about children's opportunities for play from a relational capability approach therefore turns attention towards the conditions of children's everyday lives and the extent to which these can support or constrain opportunities for playing, noting that both may be the case at the same time in some circumstances. Children's capability to find time and space for playing is relationally produced and co-dependent on a multitude of inter-related factors and forces which at times form temporary alliances to create temporal, spatial and affective conditions that are more or less open to the possibility of playing. Where conditions are conducive, playing emerges through and as encounters between children, other bodies and the materiality and affective atmospheres of their *milieux* (Lester, 2020).

A common concept to be found in the literature on how, when, where and with whom children play draws on theories of affordances (for example, Chatterjee, 2017; Gill, 2021; Heft and Kyttä, 2006; Kyttä *et al.*, 2018; Li and Seymour, 2019; Malone, 2015; Woolley, 2013). In Gibson's (1979) original conceptualisation, affordances were what an organism perceived an environment could offer for action. As was seen in chapter 3, perceptions entail the senses, movement and affect as well as cognition (Corris and Chemero, 2022; Sheets-Johnson, 2016). Kyttä (2004) expanded this to consider the social and emotional aspects that also influence whether or not a child can actualise a physical affordance. We suggest that a relational capability approach allows for a politicisation of the theory of affordances. The social, political, temporal and spatial conditions that mean children can actualise physical affordances – that they have the capability to play – are matters of social and spatial justice. These issues are explored in this chapter and in chapter 5.

With respect to the role of adults (a primary concern of this literature review), such an understanding includes and moves beyond the provision of designated times and spaces for play, to consider the myriad ways in which adults, directly and indirectly, unintentionally or otherwise, influence children's capabilities for playing, and therefore how we might better uphold children's right to play. Lester and Russell (2013, 2014), when researching the enactment of the Play Sufficiency Duty, suggest that cultivating more favourable conditions for play is dependent on the dual processes of account-ability and response-ability.

Account-ability in this context refers to the ability of adults to take account of and to account for children's everyday lived experiences, the extent of their opportunities for play, and the diverse flows and forces that influence those opportunities. Response-ability involves using this evidence to critically examine habits of thought, language and practice that make spaces more or less open to the possibilities for play to emerge. This is about re-thinking adult approaches to play, developing and implementing actions designed to open up and keep space open for playing, with the aim of protecting, maintaining and cultivating more favourable conditions for play (Lester and Russell, 2013, 2014).

This chapter is therefore an account of the research on children's contemporary play patterns and the related conditions of children's lives, which in turn shape and are shaped by children's opportunities for playing. Chapter 5 focuses on adult response-abilities (that is, adult responses in support of children's play), whilst recognising that these two processes of account-ability and response-ability are intimately connected and therefore not easily separated, meaning that there is some duplication and much cross-referencing between chapters 3, 4 and 5. Accounting for play is itself a response and much of what is accounted for emerges in part from the prior responses of adults.

Children play anywhere and everywhere (UN Committee on the Rights of the Child, 2013). As such, research on the spatialities of children's play presents challenges that require a micro geographical, hyperlocal focus, which can elucidate the particular conditions that make playing possible, a broader analysis of macro level socio-political and economic forces that produce space, and the thoroughly entangled relationship between them. To find a way to structure the diverse, plentiful and far-reaching literature on where, how and with whom children play, we have loosely used a framework introduced in chapter 3,[128] that of first, second and third places, drawing on original work by Oldenburg (1989), Oldenburg and Brissett (1982) and more recent work that has adapted this to consider children's everyday spatialities (Hooper *et al*., 2015; Kearns *et al*., 2016; Oliver *et al*., 2016; Shortt and Ross, 2021; Witten and Carroll, 2016; Witten *et al*., 2015; Witten *et al*., 2019). For Oldenburg (1989), first place refers to the home, second place to work and other spaces of economic generation and third place to places of sociability and enjoyment.

The original work focused on adults and adapting this to children's lives needs to acknowledge both the greater dependencies and interdependencies of children and adults and also that participation in the labour market and other forms of work play out differently in childhood and adulthood. In considering what might count as second or third place for children's play it is helpful not to restrict the categories too narrowly to specific sites. Categorisation is not absolute but based on the function a space provides, and this may be fluid and vary at different times or in different contexts. One example is that the home (first place) of a child may actually act as a third place for a visiting friend of that child. Taking this fluidity into account, we are suggesting, following Carroll *et al*. (2015) and Witten and Carroll (2016), that, whilst acknowledging that work will be a second place for some children, here we have used it broadly to include school and other non-domestic spaces children are obliged to attend. Outside of school and home, third places are public spaces that provide a context for sociability, emotional expression, spontaneity (Oldenburg and Brissett, 1982), and particularly for this review, where children play (Carroll *et al*., 2015). They are spaces where people feel at home and have a sense of ownership and belonging, and they are spaces of playfulness and good humour.

'The dominant activity is not "special" in the eyes of its inhabitants, it is a taken-for-granted part of their social existence. It is not a place outsiders find necessarily interesting or notable' (Oldenburg and Bissett, 1982, p. 270).

These characteristics of third places facilitate the affective benefits valued by children and engender feelings of wellness, provide stress relief, and improve perceptions of quality of life, of community/neighbourhood and of a sense of inclusion, belonging and participation (Jeffres *et al*., 2009). The very public nature of third places fosters a sense of neighbourhood safety through the open and visible public participation for both participants and non-participants (Soukup, 2006). Third places are arguably nothing more than freely accessible public social spaces. However, as the chapter shows, neither designated spaces for children's play nor public space are necessarily accessible for all children. It is this that makes play a matter of spatial justice for children, as recognised in the Welsh Government's Ministerial Review of Play (Ministerial Review of Play Review Steering Group, 2023) and discussed further in section 4.1.5 below. In addition, given the relationship between play and wellbeing, and particularly between play, place and wellbeing,[129] the case for a relational capability approach to wellbeing that takes seriously children's *capability* to access third places becomes compelling.

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[128] See section 3.11.2.

[129] See chapter 3, particularly section 3.11.

4.1.1 How the chapter is structured

Using this framework, and acknowledging its fluidity, we structure this chapter loosely around the conceptualisation of first, second and third places. Following on from the previous chapters, this account approaches play as being intrinsically relevant (Rautio, 2014) to people's collective wellbeing and inherently worthwhile (Grimes, 2021). Whereas chapter 3 was primarily concerned with the benefits of playing, this chapter pays greater attention to how, where and when playing takes place, although, as in any study of children's play, there is potential for this account to further contribute to understandings of both what play is and why it matters (Harker, 2005). The chapter prioritises empirical studies of children's play, compiling and synthesising evidence from a range of sources to build a picture of what it is like for children playing today. This includes drawing on children's own wisdom, recognising that they hold intimate knowledge about their local environments which they often experience differently from adults (Russell *et al*., 2020). In presenting this material, we also acknowledge the complexity and impossibility of accounting for all that is children's play. The intention rather is to evidence both the diversity of children's contemporary childhood play experiences and generalised trends in respect of children's play patterns, and the prevailing socio-cultural, political and environmental conditions for play.

The remainder of this first section of the chapter sets the scene, reviewing literature pertinent to the challenge of accounting for all that is and affects children's play, recognising children's play as an inherently spatial act that takes place wherever and whenever conditions allow (UN Committee on the Rights of the Child, 2013). Following this and given that third places (in a most direct application of Oldenburg's conceptualisation of them) are public spaces where children can play, this is where we begin our account. The second section reviews the common claim that children's (outdoor) play is in decline, noting how this is often conflated with a decline in play overall. It opens with a discussion on approaches to measuring how much children are playing and considers the literature on generalised trends of children's play outdoors. There are close connections here with research on children's freedom of movement, or independent mobility, and how this has been affected by concerns for children's safety, primarily due to traffic and an associated reduction in people's sense of community. These risk management issues play out differently across intersections of gender, race, class and dis/ability as well as migrant status, age and socio-economic status.

Following these contextual sections, the remainder of the chapter works with the third place framework introduced above (Hooper *et al*., 2015; Kearns *et al*., 2016; Oldenburg, 1989; Oldenburg and Brissett, 1982; Oliver *et al*., 2016; Shortt and Ross, 2021; Witten and Carroll, 2016; Witten *et al*., 2015; Witten *et al*., 2019). It explores the literature on the contemporary conditions for play across a range of distinct, but interconnected, contexts including the public realm, the COVID-19 pandemic, the home, digital spaces and adult-supervised spaces. Each section seeks to establish the range of places in which children commonly play, tracing shifts in children's play patterns over time, exploring the attractiveness and conduciveness of such spaces for playing, and how various forces (many of which are beyond the control of children) serve to support or constrain children's capabilities for play.

4.1.2 Paying attention to conditions for play

The 'prevailing valorisation of developmentalism' (Woodyer *et al*., 2016, p. 19) means that play has tended to be accounted for through a goal-oriented lens, with intrinsic value being reduced to instrumental activities, the meaning and significance of which is prescribed by adults (Rautio, 2014). Within this dominant construct, play is easily classified and categorised and often seen as something that can be provided by adults (Allport *et al*., 2019), leading to children's play being seen as out of place when occurring beyond (adult) approved times and spaces (Woodyer *et al*., 2016). Since the mid-2000s there has been a growth in studies that seek to move beyond such narrow conceptualisations, opening up the ways researchers seek to learn from and with children about their play and more broadly their lived experiences of childhood. Such studies often take as a starting point an acknowledgement of the ambiguity and heterogeneity of play itself, recognising play as a 'fluid and polymorphous

process' (Woodyer *et al.*, 2016) that often exceeds representation. As Harker (2005, p. 51) wrote 'as any person who plays knows, there is always part of that practice which cannot be described directly. Something elusive, embodied at both a physical and emotional level'. However, despite its conditional, emergent and subjective nature, play is also a recognisable phenomenon, with both players and others able to identify where and when playing takes place. Lester (2020, pp. 107-108) refers to play episodes having a 'precarious identity' that serves as a temporary stability in the meshwork of ongoing life, with moments of play emerging opportunistically wherever and whenever conditions allow. Such an approach moves away from the tendency for children's play to be thought of as a specific activity bound to particular times and spaces, separate from other aspects of life.

In trying to avoid the trap of compartmentalising play, this chapter pays attention to the multiple ways in which children, adults and their environments are intimately connected in co-creating conditions for play. In working with what Woodyer *et al.* (2016) describe as 'ludic geographies' – the diverse spatial arrangements within which playing takes place – the chapter recognises that play 'flows through various events, practices, actions, moments, and ages, making it part of the everyday life of both children and adults' (Woodyer *et al.*, 2016, p. 19; see also Cowan, 2020). For contemporary childhoods this includes the geographies of the public realm, childhood institutions, play provision, families, homes, and digital lives (both on and offline).

A posthuman[130] reading of children's play pays attention to the ways in which children's dynamic and unstable play episodes (Lester, 2020) are produced through an entanglement of bodies, attitudes, feelings, objects, materials, technologies and other forces, that together create spacetimes for playing (Änggård, 2016; Cowan, 2020; Rautio, 2013a, 2014). This is about children's relations with the more-than-human world (Änggård, 2016) 'explored beyond the developmental framework of the autonomous individual child agent' (Rautio and Jokinen, 2016, p. 35). Such a perspective can pay attention to children as social actors and also recognise the multiple and entangled ways in which other phenomena act upon children (Änggård, 2016). At a micro geographical level this includes the materiality, affects and flows (features, textures, colours, movements, atmospheres and so on) of children's physical, digital and merged environments, the many ways in which these might 'speak' to children, the possibilities and inspiration for play that they present, their symbolic value as well as their functionality, and the ways in which they may set children's minds and bodies in motion (Änggård, 2016; Rautio, 2013a). These entanglements are always spatial and temporal in that they take place somewhere at some time (Lester, 2020) but they also depend on much more than the physical aspects of space, with spacetimes of playing being relationally produced between children, other bodies (human, animal, elemental, institutional and more), affects and their material worlds.

4.1.3 Paying attention to interrelated scales of the geographies of children's lives

Taking account of context requires considering the interrelated influences on children's play at both a micro and macro scale, recognising that whilst children are actively involved in the co-production of their everyday lives, those lives are also powerfully influenced by wider social structures and forces, over which children may have little say (Blazek, 2011; Klocker and Ansell, 2016; Tranter and Sharpe, 2016). As described in chapter 2,[131] shifts in approaches to studying childhood have seen a parallel growth in studies into the everyday lives of children (Holloway and Pimlott-Wilson, 2014). This movement is characterised in part by an intentional and radical shift away from preconceptions of a universal childhood, leading to a much greater emphasis on differences in how children experience their childhoods. This in turn has fed into researchers' desires to examine the lived

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[130] For an introduction to the ideas of posthuman studies of childhood and play, see chapter 2, section 2.2.3 and chapter 3, section 3.3.1 and throughout the chapter.

[131] See section 2.2.

experiences of diverse children through ethnographic and participatory methods (Holloway, 2014). However, some have since critiqued what they see to be a preoccupation with the micro geographies of children's lives and how this may limit the reach and political relevance of such research (Ansell, 2009; Holloway, 2014). In doing so they highlight the indivisibility of children and their play from broader forces and call for an urgent need to reconcile micro-geographical accounts of play with readings of 'structural, political and exclusionary social geographies' (Horton and Kraftl, 2018a, p. 928). This reaffirms the importance of both engaging with children as social actors *and* as a social category often marginalised within decisions about public life because of their perceived immaturity (Holloway, 2014).

'We should follow the "capillaries" away from children themselves (in both time and space), to empirically investigate flows that are not directly visible to children (though some might be explored by them), into spaces from which children are physically absent. Policies are made and events take place beyond children's perceptions that they cannot comment on, yet profoundly shape their lives. The political spaces from which children are physically absent are as important as those in which they are present' (Ansell, 2009, p. 204).

Dissolving the macro/micro binary requires a multi-layered approach combining quantitative and qualitative research and drawing on the experiences of both children and adults (Holloway, 2014; Malone and Rudner, 2016). This includes following in the footsteps of feminist researchers by attending to the voices of those who care directly for children, particularly parents (Holloway, 2014), recognising that whilst child rearing practices and the patterns of family life may be locally produced, these cultures are again strongly influenced by wider political, economic and socio-cultural forces, with implications for both parents and their children (Holloway, 2014).

Such an approach requires a willingness to engage with the intersections of children's micro and macro geographies (Freeman, 2020) and move beyond simplistic dichotomies of agency/structure, local/global, childhood/adulthood, nature/culture, private/public, urban/rural, online/offline and physical/virtual (Änggård, 2016; Ansell, 2009; Holloway, 2014; Malone, 2016a, 2016b; Marsh *et al*., 2016; Nairn and Kraftl, 2016; Smith and Dunkley, 2018), instead attending to the complexities of these relations, recognising that they are situated and negotiable (Malone, 2016a, 2016b; Prout, 2011; Ruckenstein, 2013), and that children's lives are dynamic, continuously changing over time and space (Freeman, 2020). This is about working with the messiness of life and the blurred boundaries (Freeman, 2020; Holloway, 2014; Malone, 2016a, 2016b; Nairn and Kraftl, 2016) and contradictions that seem to characterise much of children's lives. For example, Rautio (2013b) argues that children can hardly be described as being divorced from nature when humans are themselves part of the natural world. Or, in the context of digital technology, where parents can also be 'gamers' (Marsh, 2020; Willet, 2017) and children's online activities are increasingly entangled with their offline behaviours and social relationships, recognising that for many these digital technologies do not replace children's desires to engage with their friends and families, 'but rather support and transform already existing ways to interact and communicate' (Ruckenstein, 2013, p. 2).

Included in such an approach is working with the blurred and porous boundaries of play itself, and between play and other aspects of life (Cook, 2019), emphasising again the ambiguity of play and resisting the temptation to inscribe meanings on to children's activities.

4.1.4 A focus on Wales and the UK in a globalised world

Given the cultural and geographic specificity of children's play patterns, the chapter draws mostly on research from the UK, and where possible, Wales. This includes incorporating evidence from grey literature and applied research, predominantly that carried out in association with the Play Sufficiency Duty.[132] However, we also draw on empirical research from across the world, mainly minority world perspectives that more closely align with UK society, the majority of which are concerned with Anglo-American, Western European and Antipodean contexts. Furthermore, this account is produced with an acknowledgement that children and adults, both within the UK and beyond, live in an increasingly globalised world, where children's hyperlocal opportunities for play are shaped by powerful global forces (Chaudron *et al.*, 2017) and entangled with a global flow of popular culture.

'[W]e need to develop the capability to situate our analysis of children's lives and of childhood in relation to such phenomena as austerity economics, involvement in the globalised capitalist economy, war-making, and the capture of governance processes by powerful interests' (Cook, 2019, p. 88).

Contemporary childhoods are lived during a time of late globalised capitalism, where priority is given to the generation of economic wealth above all other concerns (Burman, 2019; Kallio *et al.*, 2020; Katz, 2019; Lester, 2020). Such societies may be characterised by rampant commercialisation, the privatisation of public assets (Layard, 2019), a crisis of democracy (Arce, 2015), market-style competition introduced into public services (Bovaird, 2014; Edwards *et al.*, 2022), super-powered corporations and runaway top earners, with associated 'yawning inequalities' in respect of those who have the most and least (Lowry, 2017). Children's play, like everything else in late capitalism, can be treated as commodifiable and consumable – a product to be provided, sold and purchased (Lester, 2020), with an associated commercialisation of play provision, exploitation of children's playful interests for commercial gain, and mass media marketing aimed at children as consumers. Children today are most certainly embedded in a commercialised world 'that drives consumption of economic goods from an early age' (Marsh, 2014, p. 113).

At the same time young people are having to cope with the existential threat of climate change, with children at once typecast as both 'hedonistic consumers' and 'environmental heroes' (Stanes and Klocker, 2016). Whilst climate change may appear spatially and temporally remote from the everyday lives of many children in the UK, 'it poses an existential threat to the health and wellbeing of children and young people, but it is not experienced equally (Royal College of Paediatrics and Child Health, 2023). It also presents a source of significant and continuous concern for many young people (Ojala, 2016) and will increasingly affect children's play lives. For example, all children in the UK have to live with some wet and cold weather, which is often reported as a barrier to playing (Barclay and Tawil, 2015; Brockman *et al.*, 2011). As the world's climate warms up, changing weather conditions are predicted with winters in the UK continuing to become warmer and wetter, and the summers dryer and hotter (Met Office, nd), with more extreme weather events expected. Such changes will inevitably disrupt children's opportunities for play, along with many other aspects of their lives (Met Office, nd). Air pollution also has the potential to affect children's play as well as the quality of their health. For example, air pollution is frequently above World Health Organisation (WHO) limits in London, and several high alerts have been issued over the past few years recommending that people minimise time outside. These more extreme events result from both climatic conditions and the pollution predominantly produced by motor vehicles, with children and those living in deprived areas amongst the most at risk (Lee, 2022).

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[132] See chapter 2, section 2.3.3 for an introduction to the Welsh Government's Play Sufficiency Duty.

One of the most obvious, recent and extreme examples of global events impacting on children's play is the COVID-19 pandemic,[133] itself likely brought about by human exploitation of the world's natural resources and the subsequent degradation of global eco-systems (McNeely, 2021).

More generally, the internet enables children to engage in a globalised participatory culture of co-creating digital play spaces and sharing playful practices across the world (Chaudron *et al.*, 2018a; Colvert, 2021), contributing to a globalisation of popular media and culture.

4.1.5 Spatial justice

'Children have as much "right" to the city as adult citizens, yet they lose out in the urban spatial justice stakes. Built environments prioritizing motor vehicles, a default urban planning position that sees children as belonging in child-designated areas, and safety discourses, combine to restrict children's presence and opportunities for play, rendering them out of place in public space' (Carroll *et al.*, 2019, p. 294).

The idea of children's play as a matter of spatial justice is introduced in chapter 2[134] in terms of its relevance for policy that affects children's capability to participate in and shape what spaces have to offer. In this chapter, it is revisited to review research that shows the extent to which children have access to sufficient time and space to play, recognising that constraints on children's ability to play also constrain their capability to live well (Nairn and Kraftl, 2016). The chapter therefore pays attention to how the ongoing production of space serves to include and exclude some more than others, and 'the innate inequities and formidable challenges' some children experience in finding time and space for play (Freeman, 2020, p. 111). This includes accounting for phenomena that influence most if not all children's play.

Whilst the concept of spatial justice applies across all the places and spaces accounted for in this chapter, the research reviewed clearly indicates that the site of the most egregious spatial injustice is in public space and children's capability to play out in their neighbourhoods.[135] By way of introduction, we give two examples of major constraints on children's capability to play out in their neighbourhoods that both have their basis in the prioritisation of the economy over citizen wellbeing (Bollier, 2016; Monbiot *et al.*, 2019).

The first example is the loss of undefined space in the built environment. As Hart (2014, p. 131) notes, 'every square inch must be devoted to profit maximization and the kinds of undefined land that children like to appropriate for their non-formal play disappear', much of it into private ownership (Monbiot *et al.*, 2019). Between 1979 and 2018, 10% of Britain's landmass, the equivalent of two million hectares, was transferred from public to private ownership (Brett, 2018, cited in Layard, 2019). Some land is sold off to private developers for housing stock, but often remains undeveloped as the tax system encourages rather than penalises ownership of land as a 'speculative asset' (Monbiot *et al.*, 2019). Perhaps less obvious is the town centre land sold to retail

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[133] Explored further in section 4.4.

[134] As a reminder, we said in chapter 2: The concept of spatial justice opens up ways of looking at how spaces are produced through the interrelationships between design of the built environment, legal and governance systems that give precedence to keeping the economy moving, and the ways these are entangled with political and social norms and everyday practices (Lester, 2020; Pyyry and Tani, 2019; Soja, 2010).

[135] See sections 4.2 and 4.3.

conglomerates or the privatisation of public leisure and recreation spaces such as public parks. Elevated land prices and austerity-imposed cuts in public spending have increased pressure on public bodies to sell publicly owned land, transferring it into private ownership (Layard, 2019; Monbiot *et al*., 2019; Smith, 2021). Private owners can then gain windfall benefits (referred to as planning gain) when planning permission is granted for a change of use.

Where public land is privatised, private owners also have power to prioritise their commercial interests, using security and surveillance methods to constrain civic life, including placing restrictions on children's playful use of space (Grant, 2022). In this way, public spaces become 'dominated by new privatising pressures that are eroding the "publicness" of open spaces by transforming them into platforms for commerce, consumption and political surveillance' (Frago and Graziano, 2021, p. 116). Importantly for children's play, once public space is privatised by outright purchase or, as is often the case for city centre areas and shopping centres, by long term lease, the right to freedom of association in these places no longer applies as it would do if the land were in public ownership (Layard, 2019). Smith (2021) identifies several examples of parks in London that have either been sold by local authorities to private commercial companies or social enterprises, or where some aspect or all of the park has to be routinely closed off to generate income (for example concerts or corporate events). Furthermore, The New Economics Fund (Chapman, 2022) found in a multi survey analysis that green space within housing developments in England and Wales had reduced by 40% from developments built between 1930 and 1939 and post 2000, and that the availability of green space within one kilometre of developments had reduced by around a third across the same period. Reasons for the former include the freedom given to developers to reduce green space allocation to increase profits; reasons for the latter include cuts in local authority green space maintenance budgets (Chapman, 2022).

The second example is that the economy requires the efficient movement of goods and people to support the processes of production, distribution and consumption, making motor vehicles, both parked and moving, the primary users of residential streets (Frohlich and Collins, 2023; Monbiot *et al*., 2019; Wood *et al*., 2019). In the UK, private car ownership doubled between 1980 and 2010 (Hart and Parkhurst, 2011). Since 1997, the number of cars licensed in Great Britain has risen by 39.6% (NimbleFins, 2022), with 76% of all households having access to at least one car, with car ownership the highest in rural areas and lowest in urban conurbations (Department for Transport, 2019a). In 2020, there were 40.7m motor vehicles registered in the UK (Department for Transport, 2022a) and the population estimate for children under 16 in 2019 was 12.7m (Office for National Statistics, 2020b). While these data points are not directly comparable, it is probably safe to assume that there are over three times as many vehicles than children in the UK. One report estimated that parked cars in London, where car ownership is the lowest in the UK (Department for Transport, 2019a), took up 2% of the land space on which 80,000 homes could be built (White, 2019).

Whereas these forces have significant impact on all children's capability to play, others affect particular children. Hegemonic masculinity (dominated as it is by constructs of adult, white, heterosexual and middle-class men), cisheteronormativity,[136] institutionalised racism, an ableist culture, and the intersections of age, gender, class, dis/ability and ethnicity are fundamental to understanding how different children's opportunities for play are shaped by the socio-spatial arrangements of their everyday lives (Brito *et al*., 2021; Horton and Kraftl, 2018a, 2018b; Laoire, 2011; Mukherjee, 2020; Ortiz *et al*., 2016; Pinkney *et al*., 2019; Skelton, 2009; Stafford *et al*., 2020). Recognising these influences highlights the need to pay particular attention to research that privileges the experiences of more marginalised children, including those that have less money, are not white, male, and neuro-typical (Hodge and Runswick Cole, 2013; Pinkney *et al*, 2019; Stafford, 2017).

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[136] The term is introduced in chapter 3, section 3.3.3 and describes the assumption that people are happy with their assigned gender at birth and that they will form heterosexual relations (Brito *et al*., 2021).

This chapter aims to disentangle some of the interdependencies that together form the fabric of children's everyday lived experiences (Wales *et al.*, 2021), with a view to revealing ways in which adults might help to make and keep spaces more open for playing.[137] However, such a focus also requires taking seriously the interdependence of all life, including the ways in which younger and older humans depend on each other but also our dependencies on other organisms and our material surroundings (Rautio, 2013b). This includes how play is embedded in, shaped by and helps to shape social relations, practices and processes, and how, by 'valuing the vitality play affords in the here and now' (Woodyer *et al.*, 2016, p. 20), we might better understand play from the player's perspective and therefore what playing might mean to people's wellbeing. As Rautio (2013a, p. 394) suggests 'we do not always need to look far to find practices worthy of cultivation'. Whilst change can be threatening it can also open up possibilities and be a source for optimism (Klocker and Ansell, 2016). This chapter pays attention to such openness (Rautio, 2013a), providing examples that illustrate different childhood experiences that may go against general trends (Wales *et al.*, 2021), potentially offering some hope of how things can be different.

4.1.6 The transformational potential of play

By virtue of their biophysical and encultured playful disposition (Rautio, 2013a), characterised by what Bennett (2010, cited in Rautio, 2013a, p. 395) describes as an '*aesthetic-affective openness* towards material surroundings' (emphasis in the original), children are well attuned to the possibilities for play presented by the entanglements of their everyday lives, often exploiting such opportunities wherever and whenever they can. As a consequence, where these entanglements create conditions that are open to the possibility of playing, play emerges through and as encounters between children and whatever else is at hand (Lester, 2020).

Playing can be transformative as it disturbs and resists habitual ways of being (Ansell, 2009; Carroll *et al.*, 2019; Pyyry and Tani, 2019; Woodyer *et al.*, 2016), and contributes to the formation of new spatial arrangements. Rautio and Jokinen (2016, p.36) provide the example of a snow pile and discuss how the socio-material assemblage of 'snow, children, woolly mittens, scarves, boots, snot, rocks, ice, frost, dark nights, and lampposts' produces a 'shared deterritorialization', a time/space where life is, as Lester and Russell (2014b, p. 11) suggest 'more vibrant and pleasurable, with associated benefits in terms of being well'.

Nevertheless, this emancipatory potential of play is again conditional (Bryan, 2019, 2020, 2021; Göncü and Vadeboncoeur, 2015; Grieshaber and McArdle, 2010; Harker, 2005; Kinard *et al.*, 2021; McDonnell, 2019; Trammell, 2020, 2023), with children and their play susceptible to the same regulating and constraining forces as adults. As a consequence, children's playful practices can also serve to reinforce and reproduce existing spatial/temporal arrangements (Ansell, 2009; Goodfellow, 2012; Hodge and Runswick-Cole, 2013; Holt *et al.*, 2015, 2016), being more about 'conformity and socializing to an imaginary norm' (Harker, 2005, p. 33). One such example is the tendency for primary school playgrounds in the UK to be dominated by particular boys playing football, a 'sedimented and gender inflected' (Harker, 2005, p. 60) routine brought about by the conditions of school playtimes and the forces of hegemonic masculinity (Aminpour *et al.*, 2020; Hodge and Runswick-Cole, 2013; Mayeza, 2015; Mroz and Woolner, 2015; Ndhlovu and Varea, 2018; Pearce and Bailey, 2011). It is encouraging to note, however, that this is beginning to change in some schools, particularly where adults and children have taken steps to change the habits and routines of playtimes (Ardelean *et al.*, 2021; Baines and Blatchford, 2019; James, 2012; Lester *et al.*, 2011).

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[137] Considered in more detail in chapter 5.

4.2 Has there been a decline in play(ing out)?

Perhaps the most common claim made by adults about children's play today is that children in general are playing less than in previous generations (Bergen, 2018; Borst, 2021; Brown, 2014; Gleave and Cole-Hamilton, 2012; Gray, 2011; Palmer, 2019). There are examples of where children's reduced freedom of movement and outdoor play has been conflated with a reduction in children's play generally, suggesting children are playing less rather than playing differently or in different places (Singer *et al.*, 2009). Whilst this may be true for some children, we found little empirical evidence to suggest that the majority of children have somehow stopped playing (or do not know how to play). There are equally studies that reveal children's continued desire and drive to play and their remarkable capacities for finding time and space for playing (Cowan *et al.*, 2021; Loebach *et al.*, 2021; Stenning and Russell, 2020, 2022).

The literature reviewed in this chapter covers a range of places, contexts and forms of contemporary children's play and reveals a lively play culture. However, there is no doubt that contemporary conditions for children's play have changed significantly compared with what many older adults may have experienced in their childhoods (Bassett *et al.*, 2015; Harris, 2017; Jelleyman *et al.*, 2019; McQuade *et al.*, 2019; Play England, 2023), with implications for children's capabilities for playing, leading to changes in children's play patterns. What this demonstrates is not that children are playing less but that some of the time (and not all), they are playing in different ways from previous generations, perhaps in ways that are perceived to be of less value (Alexander *et al.*, 2014, 2019; Cook, 2019; Harris, 2017; Lester, 2016b; Lewis, 2017; Wood, 2012). Based on the available evidence it is fair to conclude that where there has been a decline in play, it is in children's freedom to play out and about in the public realm and the amount of time they spend doing so (Barron and Emmett, 2020b; Bates and Stone, 2015; Frohlich and Collins, 2023; Gray *et al.*, 2015; Holt *et al.*, 2016; Karsten, 2005; Lewis, 2017; Loebach *et al.*, 2021; McQuade *et al.*, 2019; Mullan, 2019; Play England, 2023; Woolley and Griffin, 2015). Children's geographers and others whose disciplinary interest pays particular attention to the spatiality of children's lives (Horton and Kraftl, 2018a) have traced this erosion in children's freedoms and their growing exclusion from public space throughout the late twentieth and early twenty first century (Holloway, 2014).

This section explores this trend, seeking to establish the scale of this decline and the primary causes of it, whilst also recognising that it is far from complete or universal (Kraftl, 2020b), and there continue to be many children who play outside regularly without adults (Dodd *et al.*, 2021a; Freeman, 2020; Kraftl, 2020b). In their scoping review of children's opportunities for play in the built environment, Martin *et al.* (2023) note a significant increase in studies since 2010, with a broadening of focus from researching specific play space towards more general built environment contexts, together with an increase in researching with children.

There is a diversity of childhoods and children's capabilities for playing are affected by myriad structural and context specific circumstances (Malone and Rudner, 2011, 2016). Nonetheless, across children's diverse lived experiences, there are discernible trends within and across countries. In many minority world contexts this includes a decline in the numbers of children playing out regularly (Loebach and Gilliland, 2016a, 2016b) and the amount of time children spend playing outside (Larouche *et al.*, 2017), an increase in the age at which most children are allowed out to play (Dodd *et al.*, 2021a; Shaw *et al.*, 2015), and reductions in the distances children are allowed to travel without adult accompaniment (Dodd *et al.*, 2021a; Gill, 2021; Malone and Rudner, 2016; Shaw *et al.*, 2015).

Research indicates that these changes are accompanied by an associated shift in children's play patterns towards more time spent playing in and around the home, more time playing under the supervision of adults, and big increases in children's play with digital devices, with subsequent shifts in children's peer play culture (Holt *et al.*, 2016; McQuade *et al.*, 2019). With regards to impacts on children's wellbeing, these changes need to be understood in the context of what children themselves perceive as playing, their satisfaction with their opportunities for play, and what they say they want when it comes to playing. However, before discussing the

literature on these issues it is also important to understand the limitations of research approaches deployed when seeking to establish generalised trends and the realities of children's play lives.

4.2.1 Reviewing approaches to studying how much children are playing out

'The ways in which time spent outdoors in children has been studied to date varies widely in terms of participant age, methodology, and foci, confounding scholars' ability to compare findings. Many studies also conflate outdoor play and physical activity, as well as children's IM (independent mobility) with active travel, which undermines the value of travel and outdoor play that is not active ... Many studies on children's IM and outdoor activities have also relied on parent-proxies rather than child reports or objective measures' (Loebach *et al*., 2021, p. 5).

In line with more general studies of childhood and play in chapters 2 and 3, many studies looking at how much children play outdoors are founded in some form of concern for children's wellbeing, including physical activity (Aarts *et al*., 2012; Aggio *et al*., 2017; Bates and Stone, 2015; Gray *et al*., 2015; Holt *et al*., 2016; Lambert *et al*., 2019; Wen *et al*., 2009) and mental health (Dodd and Lester, 2021; Dodd *et al*., 2022). Others have an interest in particular forms of play such as imaginative play (Singer *et al*., 2009) and more adventurous or risky forms of playing (Brussoni *et al*., 2012, 2015; Dodd *et al*., 2021a; Jelleyman, 2019). The emphasis on physically active outdoor play in many health focused studies, either explicitly or implicitly, positions outdoor play as being of greater value than indoor play, for example, referring to less physically active forms of play and those that mostly occur indoors as 'sedentary' or 'passive' (for example, Gray *et al*., 2015; Janssen *et al*., 2016; McQuade *et al*., 2019). Such language suggests that engagement with other forms of play does not require an active response from children, an assumption critiqued by much of the literature of children's play with digital technologies (Cowan *et al*., 2020).

There is a range of studies seeking to establish generalised trends in children's play patterns through exploring particular aspects of play, the time children spend outdoors, neighbourhood characteristics, children's freedom of movement, and their active travel. Studies primarily concerned with how much children are playing tend to be quantitative, routinely involving relatively large numbers of participants to generate statistical data across a population at a national or municipal level (Bates and Stone, 2015; Lambert *et al*., 2019). Many of these studies provide a generalised snapshot of children's lives (an assessment of children's play at a particular point in time), which may or may not then be revisited as part of more longitudinal studies that aim to track changes over time (Dodd *et al*., 2021a, 2021b) and/or compare them with similar datasets from other contexts (Shaw *et al*., 2015). More qualitative approaches tend to be used when seeking to identify common influences on children's opportunities for play, with smaller scale studies (in terms of how many participants are involved) paying attention to the experiences of particular children in particular contexts, although many of these studies also point to generalised trends in children's play (Horton and Kraftl, 2018b; Lee *et al*., 2015; Malone and Rudner, 2016; Martin *et al*., 2023). There is also an increasing number of systematic reviews seeking to establish trends apparent in the burgeoning research base. Bates and Stone's (2015) systematic review notes the variations in methodologies and methods across quantitative and qualitative research into children's outdoor play and freedom of movement, arguing that both objective and subjective methods are needed, and that a standardised approach would allow more comparison across time and context.

One critique of large-scale quantitative studies is that generalisations can mask differences, complexities and contradictions at a more local level and across different childhoods. This can include localised characteristics and conditions (Dodd *et al*., 2021b; Shaw *et al*., 2015). One example is of a study in a gentrified area of Paris, where the local policy was for children to attend their local primary school, thereby reducing the differences

of neighbourhood experiences across class (Lehman-Frisch *et al*., 2012). Equally important are place-based understandings of particular socio-cultural circumstances (capabilities) including socio-economic status and 'norms related to gender, age, and ethnicity within diverse societies' (Malone and Rudner, 2016, p. 4; see also Horton and Kraftl, 2018a, 2018b; Loebach *et al*., 2021). Furthermore, for every apparent trend there are exceptions and contradictions (Lehman-Frisch *et al*., 2012).

A second critique relates to how average amounts of time children spend playing are calculated from data gathered (Loebach *et al*., 2021). As routinely acknowledged by the respective authors of such studies, the final numbers are often only an approximation based on an extrapolation of responses to questions about children's play habits during a relatively short period of time (for example a week), which are then averaged out across a much longer period (for example a year) (Cleland *et al*., 2010; Dodd *et al*., 2021b).

A third critique concerns the in/accuracy of data that relies on parental responses alone (Bornstein, 2014; Dodd *et al*., 2021b). Where studies rely on parents/caregivers to report on their children's play patterns, there are concerns that adults may or may not recognise and acknowledge all of their children's play, as well as the potential for them to over or underestimate the extent of children's play experiences (Dodd *et al*., 2021b). These issues are likely to be further exacerbated where adults are asked to identify where, when or how much children engage in particular forms of playing. Such an approach relies on adult perceptions of what constitutes these particular forms of playing. For example, a large scale, international survey on the play patterns of children aged one to twelve years old carried out by Singer *et al*. (2009) relied on mothers reporting on their children's play behaviours. Participants were asked 49 questions about how their children spend their time each day, including how often children engaged in imaginative play. The results suggested children engaged in imaginative play much less than other forms of activity, but as the authors acknowledge those participating may not necessarily recognise all aspects of children's imaginative play, may not have been aware of it taking place or may not have accounted for it occurring in amongst other types of activity (Singer *et al*., 2009). Given play's ambiguous and emergent nature and its propensity to occur momentarily and simultaneously, it is questionable whether adults alone can ever fully appreciate all the times and spaces where children might consider themselves to be playing (Lester, 2020).

Additionally, self-reporting studies rely on the accuracy of answers provided by participants (Shaw *et al*., 2015) who are often reporting on their own perceptions and lived experiences. As the authors of these studies again acknowledge, there are significant limitations to studies that rely solely on the recollections and perceptions of adults (Cleland *et al*., 2010; Dodd *et al*., 2021b). In retrospective studies, there is potential for recall bias (Bhosale *et al*., 2017), with adults romanticising their own childhoods compared to what they perceive to be the situation for children today, remembering fewer restrictions or anxieties about safety (McQuade *et al*., 2019; Rixon *et al*., 2019). These past conditions are compared with what is perceived to be a more dangerous present that requires parents to exercise greater vigilance and control of their children, including restricting their freedom to play outside (Badland *et al*., 2016; Jelleyman *et al*., 2019; McQuade *et al*., 2019). However, there is some evidence of people presenting reasonably high levels of fidelity in these situations. For example, Prezza and Pacilli (2007) cite an earlier study by Pacilli (2004) involving adolescents, which compared their recollections of their earlier childhood with actual data collected at the time and illustrated that most participants could accurately recall the age they began to go to school alone.

Studies that include both parents' and children's perceptions can be particularly illuminating in that they surface both the varied and shared experiences and concerns of children and adults. There is evidence that when it comes to studies of children's play and mobility, children and adults can report things very differently. For example, Shaw *et al*. (2015) found that children in England, Ireland and France reported having more freedom of movement than their parents reported granting them. Meanwhile in Finland and Japan the opposite was true, with adults reporting granting more freedom than the children said they had. Lee *et al*. (2015), in their meta-analysis of 46 qualitative studies exploring wide ranging determinants of children's 'independent active free play', also found significant differences between children's and adults' preferences for neighbourhood play spaces. Children's

preferences for casual open spaces around their neighbourhoods that they could use flexibly for a variety of games and activities contrasted with the views of parents who tended to have a narrower focus on the availability of specific types of play equipment in large-scale designated playgrounds (Lee *et al.*, 2015). Similar issues have been identified through local authority Play Sufficiency Assessments in Wales, where parents have reported much lower satisfaction with children's opportunities for play compared with children's own reports, with the provision of designated play areas appearing to have greater influence on parental satisfaction but children tending to focus on a much wider array of opportunities for play (Barclay and Tawil, 2013).

What studies involving parents perhaps more accurately evidence are their own feelings and concerns about their children's opportunities for play, which itself matters greatly because parents/carers directly influence their children's opportunities for play. For example, Jelleyman *et al.* (2019) suggest parents readily acknowledge the valuable role in child development of exposure to risk and uncertainty through outdoor play and are concerned about their children's poor access to such opportunities. Singer *et al.* (2009) also conclude that concerns about children's play are global issues, with many mothers across the countries represented facing 'an internal struggle over play' and frequently citing concerns for children's safety.

Critiques of studies that rely solely on the accounts of adults emphasise the importance of research with children exploring their personal experiences and perceptions (Murray and Cortés-Morales, 2019). Studies involving children tend to report a more nuanced situation with regards to generalised trends, revealing both the intimate knowledge children hold about their local environments and everyday lives (which they experience differently from adults), as well as the many ways in which children manage to find time and space for play beyond the intentions of adults (Han *et al.*, 2018; Russell *et al.*, 2020). This research again includes both quantitative and qualitative studies often using a mixed methods approach to elicit more detailed insights regarding generalised trends, structural issues, and the particularity of different children's lived experiences (Holloway, 2014; Malone and Rudner, 2016). Participatory research with children may include both subjective and objective methods. Subjective methods seek to gather children's views about their lived experiences and can use questionnaires, interviews, focus groups and diaries but also more creative, spatial and multimodal methods intended to move beyond the limitations of what children themselves may articulate, using (for example) observation, mapping, photography, video and child-led tours to generate further insights (Bates and Stone, 2015; Beresin, 2014; Glenn *et al.*, 2012; Horgan *et al.*, 2022; Horton and Kraftl, 2018a, 2018b; Kearns *et al.*, 2016; Krishnamurthy, 2019; Marsh and Bishop, 2013; McDonnell, 2019; Mitchell and Elwood, 2012; Owens, 2018; Potter and Cowan, 2020; Russell and Stenning, 2022; Willett, 2015). Objective methods include the use of digital technologies including Global Positioning Systems (GPS) and Geographic Information Systems (GIS), mapping and tracking, providing measurements of spatial arrangements and physical affordances, distances travelled, and the range of spaces accessed by children (Bates and Stone, 2015; Kyttä *et al.*, 2012). Some consider GPS to be the 'gold standard' when it comes to measuring human movements but it is not without its limitations, and the volume and type of data produced can present challenges for interpretation (Badland *et al.*, 2016; Han *et al.*, 2018). Again, studies combining subjective and objective methods can enable a more in-depth analysis of localised socio-spatial conditions for play. However, there are significant limitations in respect of the resources required to carry out such intensive studies, making it more difficult for them to be replicated at scale (Bates and Stone, 2015).

Ethical considerations and practical issues of access to research participants mean that studies involving children are often conducted in or through schools where researchers on finite timescales and budgets can most easily reach and work with children (Aarts *et al.*, 2012; Carver *et al.*, 2013; Horton and Kraftl, 2018a, 2018b; Jago *et al.*, 2017; Kyttä *et al.*, 2015; Pacilli *et al.*, 2013; Parent *et al.*, 2021; Shaw *et al.*, 2015; Wen *et al.*, 2009). In addition, social media is also used to recruit survey participants (Dodd *et al.*, 2021a, 2021b). Overwhelmingly such research is carried out with children in middle childhood (and to a lesser extent teenagers), likely for several practical reasons including ease of access via schools and children's capacity to engage with the preferred research methods, but also the general recognition that around this period in childhood, children are likely to have burgeoning interests, tendencies and permissions for playing outside beyond the direct supervision of adults

(for example, Aarts *et al.*, 2012; Carver *et al.*, 2013; Foster *et al.*, 2014; Horton and Kraftl, 2018a, 2018b; Kyttä *et al.*, 2015; Pacilli *et al.*, 2013; Parent *et al.*, 2021; Shaw *et al.*, 2015; Wen *et al.*, 2009). Consequently, there is less research on younger children's experiences in the public realm (see Clement and Waitt, 2018 for an exception), with much of the research on their play experiences confined to adult supervised provision.

Most of the studies cited include demographic data on the children and/or families recruited, which usually includes age, ethnicity, socioeconomic status and whether or not they live in rural, suburban or urban neighbourhoods. However, issues of access also mean there are fewer studies of children who may be considered harder to reach, although there are also researchers making significant efforts to address this (for example: Barclay and Tawil, 2021; Children's Commissioner for England, 2021; Giralt, 2011; Hodge and Runswick Cole, 2013; Horton, 2017; Stafford, 2020; von Benzon, 2017). However, this does raise questions of what is meant by 'children' when generalised claims are made about their play, which again potentially masks differences in childhood experiences.

Despite these critiques, studies on children's time spent in outdoor play continue to provide valuable insights into the extent of children's opportunities for play and the structures of children's lives more generally, and together are revealing in respect of prevailing contemporary conditions for play across many minority world contexts.

4.2.2 What children want and their perceptions of playing

'For children and teenagers themselves, playing and hanging out together is one of the most important aspects of their lives. They value time, freedom and quality places to play. When asked what is important to them, they consistently mention playing and gathering with their friends' (Dallimore, 2023, p. 6).

Whilst many children enjoy playing inside,[138] and despite the advancements and attractions of digital technology, children overwhelmingly continue to report a strong desire for playing outside with their friends (Brockman *et al.*, 2011; Children's Commissioner for England, 2021; Children's Commissioner for Wales, 2018, 2023; Dallimore, 2019, 2023; HAPPEN, 2018; Livingstone and Pothong, 2021). Furthermore, when asked about what, where and with whom they play, children have been found to report a wide range of play behaviours, with outdoor play and what might be considered as 'traditional' games equally as prominent as play with digital devices, and pretend play persisting throughout middle childhood (Howard *et al.*, 2017). However, many children also say they want and need more time, space and freedom for playing (Barclay and Tawil, 2013, 2016; Bornat and Shaw, 2019; Burns and Irvine, 2011; Dallimore, 2019, 2023; HAPPEN, 2018; Kearns *et al.*, 2016). Singer *et al.* (2009) also found that 73% of the mothers participating in their study stated that given the choice, their children would choose to play outside rather than inside, with many believing that this was when their children were at their happiest.

Studies carried out by Children's Commissioners either specifically into play (Children's Commissioner for Wales, 2018) or more broadly (Children's Commissioner for England, 2021; Children's Commissioner for Wales, 2016, 2023) consistently report how important playing is to children. Although this is expressed differently by younger and older children, there is consistency in respect of what children want across age, gender, ethnicity, location and family income, including children in care, young carers, children attending 'special schools', and children from a Gypsy or Irish Traveller background (Children's Commissioner for England, 2021) and children with Profound

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[138] See section 4.5.

and Multiple Learning Disabilities (Children's Commissioner for Wales, 2023). Playing (outside, inside and online) and being with friends ranked highly when asked what made them happy (Children's Commissioner for Wales, 2023). Wanting places to play and fun things to do, with an emphasis on spending time with friends, wanting to be outside and valuing outside spaces for play, were all mentioned as important in an online survey with 577,077 responses (Children's Commissioner for England, 2021), with 'play' being one of the most frequently used words in children's responses. Similarly, in terms of what might make things better for children, more places and opportunities to play and making places to play safer and nicer were mentioned frequently (Children's Commissioner for Wales, 2021).

Equally, in a study involving 2,000 nine- and eleven-year-olds in primary schools across south Wales, more places to play, local facilities for being active, cleaning up streets and making roads safer were the most common responses from children when asked how children's health and wellbeing could be improved (HAPPEN, 2018).

Also in Wales, as part of local authority Play Sufficiency Assessments, quantitative satisfaction surveys have been widely used to gather children's views about their opportunities for play. The 2018/2019 and 2022 surveys, mostly with responses from children aged eight to eleven, have provided data for pan-Wales analysis (Dallimore, 2019, 2023). The 2023 analysis found that 38% of children and teenagers play out or hang out with their friends most days, with a further 33% doing so a few days each week, meaning 29% never or hardly ever play out. This marks a decline in numbers playing out from the 2019 analysis, when 42% played out most days and 32% some days (Dallimore, 2019). Equally, the number of children not allowed to play out increased from 25% to 28%. Of nearly 7,000 responses analysed in the 2023 report, 70% of children and teenagers rated their opportunities for play as good or great, with significant variations in satisfaction levels across local authorities. Cross analysis shows that 'those who play out most days, those who feel safe and those who are allowed out to play are more likely to be satisfied with their play opportunities' (Dallimore, 2023, p. 22). This overall satisfaction figure is greatly reduced from the 2019 figure of 84%. A possible explanation for much of this drop, and possibly the drop in number playing out, is that the surveys were carried out between late 2021 and early 2022, when the restrictions of COVID-19 lockdowns were either still in place or a very recent memory. A similar drop in overall satisfaction was found in one local authority in north-east Wales. Here, satisfaction levels amongst children aged nine and ten (the majority of whom were surveyed across the county, with this age group being used as a consistent measure of satisfaction levels) were found to improve by 10% across three cycles of assessing and (working towards) securing play sufficiency from 2013 to 2019. However, in the assessment following lockdown restrictions associated with the COVID-19 pandemic, satisfaction levels amongst the same age group dropped by 7%, with 82% of children reporting that the pandemic had an impact on how they usually played (Wrexham County Borough Council, 2022).

A study in the northwest of England working with children in the final year of primary (Year 6) and first year of secondary school (Year 7) found that spatial, temporal and psychological factors affected the capability for both groups to play, but overall Year 6 children were more satisfied with their play opportunities and reported more time to play. Year 7 children felt they had less permission and time to play, including while at school (Finney et al., 2020).

Spending time with friends is consistently reported as a top priority for children and a major motivation for playing outside (Barron and Emmett, 2020b; Brockman et al., 2011; Cleland et al., 2010; Page et al., 2010). Loebach et al. (2021) found that children who agreed there were a lot of other children in their community with whom they could play, spent over an hour more playing out each week than did those who felt there were not many children to play with nearby. Lee et al. (2015) propose that a lack of children in the local neighbourhood equates not only to an absence of friends to play with but also a decrease in the protection that comes from 'safety in numbers', with the presence and confidence of knowing that other children are likely to be out and about in the local neighbourhood also extending children's freedom of movement (Loebach et al., 2021; Suchert, 2015; Veitch et al., 2007, 2017; Wales et al., 2020). Children have also reported that having nobody to play with reduces their enjoyment of play and that not being able to play makes them feel sad (Burns and Irvine, 2011; Moore and Lynch, 2018; Veitch et al., 2007).

Given the wealth of contemporary research exploring children's play patterns there are notably relatively few which explicitly explore children's understandings of what play is (Meire, 2007; Cowan, 2020).[139] However, those that do invariably find that children's constructions of play are again strongly associated with the presence and involvement of friends, as well as time away from adults or at least a lack of adult control and interference, both of which are highly prized and critically important to children, with the latter becoming more so as children get older (Barnett, 2013; Cowan, 2020; Dallimore, 2019; Duncan, 2015; Glenn et al., 2012; Howard et al., 2006). From children's perspectives this means that being taken shopping by parents may not be play, but 'going shopping with yer mates' is, or watching TV on your own isn't play, but 'watching TV together with your mates' can be (Barclay and Tawil, 2018, p. 5). Such subjective experiences of playing turn attention towards children's satisfaction with their opportunities for play and whether children themselves feel that they have enough time and space for playing.

Kearns et al. (2016) found that children's accounts of 'just playing' in the public realm included throwing or kicking balls around, riding bikes and scooters, bouncing on trampolines, climbing trees, playing tag or just hanging out. However, there were also times when children 'transformed their environments from the mundane to the magical' by playing imaginative games (Kearns et al., 2016, p. 283). It is here perhaps that younger and older children's propensity for play may diverge with implications for their satisfaction with opportunities for playing.

'For those children who are of an age where they are still disposed to playing in such a way that makes use of any environment through exploratory and pretend narratives, access to other children may be all that is required for a good enough experience of play. In contrast as children get older, become more self-aware and less disposed to playing in pretend ways, the object opportunities offered by the environment may matter more' (Barclay and Tawil, 2018, p. 12).

In general, despite experiencing greater freedom of movement and parental permission for 'playing out', teenagers are more likely to report dissatisfaction with their opportunities for play, with reasons given including less time for playing, lower satisfaction with the quality of available spaces for play, and less positive perceptions of adults' attitudes (Barclay and Tawil 2013, 2016; Children's Commissioner for Wales, 2018; Dallimore, 2019, 2023; Merthyr Tydfil County Borough Council, 2019). Whilst, in general, adults tend to be welcoming and tolerant of younger children's playful behaviour, the similar behaviours of teenagers are often not perceived as being play (Dallimore, 2023; Long, 2017; Russell et al., 2020), a significant concern given the increased age at which many children may now experience autonomy in the public realm (Dodd et al., 2021a).

It is also important to recognise that children themselves have attitudes, tendencies and preferences that influence their motivations to 'play out' (Cleland et al., 2010; Loebach et al., 2021), which are in turn shaped by – and shape – the socio-spatial conditions in which they live (Brockman, 2011). Children who hold perceptions that there are 'better things to do inside' and children who report higher levels of fears or concerns related to outdoor play, on average spend significantly less time outside (Loebach et al., 2021, p. 13). Conversely, children who perceive more benefits of outdoor play are more likely to engage in more of it (Loebach et al., 2021), with children's enjoyment of more active forms of travel also being a determinant of their freedom of movement (Veitch et al., 2017). As Loebach et al. (2021) suggest, where children have preferences and tendencies for indoor play this may have much to do with what is on offer to them inside compared to outside their homes:

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[139] Chapter 3, sections 3.3.1 and 3.3.5 offer critiques of the ethics and value of asking children about play.

'The association between interest in screen-based activities and lower time outdoors reminds us that outdoor play activities may not hold children's interest as much as digital play particularly when independent mobility and peer interaction is limited and the nearby outdoor environment provides few appealing or accessible play opportunities' (Loebach *et al.*, 2021, p. 19).

However, in a study with over 450 children aged two to eighteen years talking about their play, the Children's Commissioner for Wales (2018, p. 6) found that 'technology was always used during free time but no one mentioned wanting more time to play on or use technology'.

Differences have also been found in respect of the improvements asked for in communities where children report higher or lower satisfaction with their opportunities for play, with high rating children tending to focus on further qualitative improvements to spaces where they play but lower rating children concerned with the basic functions and safety of their neighbourhoods, and their associated permission to play outside (Barclay and Tawil, 2013). Furthermore, children reporting the lowest levels of satisfaction (those that deem their opportunities for play to be 'not good' or 'rubbish') were those experiencing extraordinary constraints on their play, above and beyond those experienced by most other children (Barclay and Tawil, 2013, 2016).

4.2.3 Time spent playing outside

Children's access to sufficient time for play has been found to be an influence on their satisfaction with opportunities for play (Dallimore, 2019, 2023). Mullan's (2019) analysis of three children's UK time use surveys (1975, 2000 and 2015), involving 7,985 children aged between eight and sixteen years, found a stark reduction in the time children played outside, averaging 30 minutes a day less in 2015 than in 1975, with a bigger decrease in eight- to ten-year-olds than with older children. Over the same period, the time children spent on screen-based activities (not including mobile devices) increased by 22 minutes, with the majority of change occurring since 2000. Between 1975 and 2000, time spent on homework also increased by 15 minutes, with no further change in 2015, however Mullan (2019) is careful to point out that this far from dominated children's time outside of school. Whilst time in sport also increased, children's time spent playing beyond the home reduced by a greater extent. Overall, children in 2015 were spending more time indoors at home than had previously been the case. Mullan (2019) suggests that these trends align with growing concerns for children's safety and a greater emphasis on education, but that since 2000 it may be rapid developments in technology that have exerted the strongest influence on how children spend their time. Equivalent time use studies in the US have identified similar trends (Bassett *et al.*, 2015).

Research suggests that across minority world countries, many children are now spending more time inside, playing with digital devices, than they are playing outside. However, this is not the case for everyone, and most children still play outside to some extent. For example, Loebach *et al*. (2021), using 826 child-parent matched surveys, explored the outdoor play and mobility behaviours of children aged 10 to 13 in London, Canada. 34% of child participants reported more than one hour per day, or eight hours per week, playing outdoors, of which 15% reported spending 14 hours or more outside per week. However, most children (61%) reported spending less than eight hours outside per week, with just over 2% reported as not playing outdoors at all, and 65% 'spending two or more of their out-of-school leisure hours per day playing indoors on screens or digital devices' (Loebach *et al.*, 2021, p. 9). When comparing these results with nationally recommended guidelines for children's health, Loebach *et al*. (2021) conclude that most children were spending less time outdoors and more time 'on screens' than recommended.

UK studies suggest that children are not playing any less over the last twenty years, but the distribution of how and where they play has changed. One cross-sectional, nationally representative play survey involving 1,919 parents of children aged five to eleven, concluded that whilst there were huge variations between children, on average children were playing regularly for approximately three hours a day. Just over half of this time was reported as playing outdoors but, as the authors confirm, this was most commonly in private gardens (Dodd *et al*., 2021a). A study of 1,223 nine-year-old children across 47 schools in Bristol, found that 6.5% never played with family or friends outside near their homes, whereas 29.5% did so five days a week, with the others in-between. In terms of playing with family or friends inside the home or in the garden, the study found that 8.8% never did this and 28.5% did so five days a week, lower than the outdoor play numbers (Jago *et al*., 2017). These findings emphasise the significance of homes and gardens in children's contemporary play patterns and are consistent with other studies showing gardens to be one of the most used outdoor spaces in children's play (Arvidsen *et al*., 2020; Dodd *et al*., 2021a). However, one in eight households in the UK do not have access to a garden (Office for National Statistics, 2020a).

Freedom to roam further away from home without adult accompaniment has been found to be predictive of average times spent playing outside (Loebach *et al*., 2021; Wen *et al*., 2009). For example, Loebach *et al*. (2021) found that most children aged 10 to 13 had some degree of freedom of movement beyond the home, with those that did reporting much higher average times spent outside, although 15% of children did not have this freedom. However, while children's freedom of movement increases as they get older, Dallimore (2019, 2023) found that teenagers were more likely to feel that adults' attitudes towards them hanging out were negative. In other studies, younger children are consistently reported as spending more time outside playing than older children (Cleland *et al*., 2010; Dodd *et al*., 2021a; Loebach *et al*., 2021), with time outdoors peaking around middle childhood (ages five to twelve years) and then declining as children transition to adolescence (Bornat and Shaw, 2019; Carver *et al*., 2013; Dodd *et al*., 2021a; Helleman, 2021; Loebach *et al*., 2021).

Older children have been reported as spending more time inside 'on screens' than they do outside (Larson *et al*., 2019), with children's use of digital devices and the internet continuing to increase with age (Livingstone *et al*., 2017), although younger children are also spending increasing amounts of time with digital devices. In this regard, despite the increasing diversity of apps and websites available to children, television remains prominent within their digital viewing habits, with children now accessing such content across a range of devices (Chaudron *et al*., 2018a; Marsh *et al*., 2020). Findings from a UK based survey with 2,429 parents of children aged three to eleven years suggested time spent watching television and playing on digital devices was greater than non-digital play on weekdays but at weekends, only time spent viewing television exceeded time for non-digital play (Marsh *et al*., 2020). Children have also reported greater satisfaction with their opportunities to play during school holidays than in term time, when they tend to experience more constraints on their time for play (Barclay and Tawil, 2015). Together, these studies emphasise the significance of children's capability to play outside during the after-school period, as well as their time for play during the school day (Malone and Rudner, 2016).

4.2.4 A critique of 'independent mobility'

In its proposal for child-friendly urban planning, Arup (2017) talks about children's everyday freedoms, a term that 'combines the ability to play and socialise with high levels of independent mobility' (p. 15). This, together with the previous section on research into time spent playing, shows the connections between children's capability to move through their neighbourhoods and their capability to play out, although the two are not synonymous. The term 'independent mobility' is often used to refer to children's freedom to move about their local neighbourhoods without direct adult supervision or accompaniment (Shaw *et al*., 2012). For children this will usually involve active forms of travel including walking, riding, skating or scooting (Veitch *et al*., 2017). Whilst precise definitions of independent mobility differ, in general they explicitly or implicitly encompass children's freedom to move and play out and about in the public realm unaccompanied by adults, as well as the permission children are granted to travel to particular destinations (Alparone and Pacilli, 2012; Badland *et al*., 2016; Shaw *et al*., 2015). However,

in many ways the notion of 'independent mobility' represents an adult-centric perspective that overlooks the relational and interdependent aspects of children's mobility (Murray and Cortés-Morales, 2019; Nansen *et al.*, 2015; Russell *et al.*, 2020) and the many rich ways that children share their movements in the public realm with family, friends, pets and others (Kraftl, 2020b). There is also a generally held view that wider roaming is better (Smith and Dunkley, 2018), yet many studies reveal the ways in which children make use of whatever is available to them in their immediate vicinity (Horton *et al.*, 2014; Kearns *et al.*, 2016). Furthermore, many children enjoy playing outside with adult accompaniment and/or with adults not directly involved but in very close proximity to their homes, with gardens, yards and threshold spaces accounting for some of children's favourite and most used outside spaces (Barron and Emmett, 2020b; Dodd *et al.*, 2021a; Witten *et al.*, 2015).

For very young children who are likely to be reliant on the accompaniment and care of adults or older siblings, studies of independent mobility may provide few insights into their immediate opportunities for playing outside. For example, Ladru *et al.* (2020), in their study of a mobile preschool that operates from a bus, suggest that the group's mobility can be seen as a collective body, made up of an assemblage of children's and teachers' bodies and other material objects, and that it is through this collective embodiment that the young children's agency emerges as they negotiate their freedom of movement. In the Netherlands, research involving walking observations through neighbourhoods, found that in only 8% of cases were children observed outside on their own, the vast majority (82%) were playing with other children, and the other 10% playing with adults. Furthermore, whilst not directly involved, in almost half the observations adults were present and this was more likely for younger children and for girls (Helleman, 2021). It is also important to acknowledge that parents do not just accompany their children for safety reasons. For example, reasons given for high rates of accompanied journeys to school in the UK include practicalities (like dropping children off on the way to work), spending time with children, exercising or meeting other people (Shaw *et al.*, 2012).

For those children who are allowed out to play, their motivations and permissions to move about their localities are often dependent on the presence of other people, particularly other children to move around with (Mikkelsen and Christensen, 2009). For example, Loebach and Gilliland (2016a) found that most nine- to thirteen-year-old participants' 'independent' neighbourhood activity was carried out in the company of other children. Children's freedom of movement is also dependent on the makeup of their everyday lives and emerges from a process of negotiation and experimentation between children and parents (Kullman, 2010). This process is in turn likely to be influenced by the presence (both real and imagined), attitudes and actions of other people in the public realm, who may also interact with children as they move around their neighbourhoods. Even when children are allowed to play outdoors, they may remain subject to some degree of adult monitoring and surveillance (Dallimore, 2019, 2023; Holt *et al.*, 2016; Horton and Kraftl, 2018a, 2018b; Witten *et al.*, 2015).

Where children do experience freedom of movement, the near ubiquitous presence of mobile phones also means that children and parents can maintain close communication, with phones acting as a safety device and an extension of parental supervision (Arvidsen and Beames, 2019; Rixon *et al.*, 2019; Wales *et al.*, 2021). However, children remain responsible for navigating the public realm when unaccompanied by adults (Shaw *et al.*, 2012). Children also use mobiles phones and social media to assist them in meeting up with friends (Arvidsen and Beames, 2019; Waygood *et al.*, 2020), with apps and other digital devices (for example, Pokémon and smart watches) providing potential incentives to go outside (Blum-Ross *et al.*, 2018). Mobile phones may therefore extend children's freedom of movement (Brockman *et al.*, 2011; Smith and Dunkley, 2018), but also increase parental anxiety due to an expectation that children will be instantly reachable (Blum-Ross *et al.*, 2018). However, mobile phone ownership on its own was not found to be a significant factor in the granting of parental mobility licenses (Shaw *et al.*, 2015).

Such considerations emphasise the 'interdependence of children's movement in, and through spaces of everyday life' (Badland *et al.*, 2016, p. 95) and again turns attention towards children's relational capabilities. The concept of independent mobility implies a separation from the production of public space, and is in line with an individualist understanding of children's independence increasing with age. Much contemporary research into children's lives from a relational perspective seeks to show the interdependencies and intra-relations of children and the conditions of their everyday lives[140] and this section has shown how such interrelatedness functions in terms of children capability to participate in public space. It is for this reason that we have used the term 'freedom of movement'.

4.2.5 Children's freedom of movement

'The significance of children being able to open their door and go out to play and meet friends unaccompanied by adults should not be overlooked' (Wales *et al.*, 2021, p. 192).

Research into children's freedom of movement does not account entirely for all aspects of children's outdoor play, but it does provide important insights into the prevailing conditions within local communities that affect all children's capability to play throughout their childhood in diverse and complex ways and how this links to children's wellbeing (Frohlich and Collins, 2023). Furthermore, children's playful disposition is such that many of children's movements throughout their neighbourhoods will be performed playfully with moments of play emerging along the way (Badland *et al.*, 2016; Bourke, 2017; Horton *et al.*, 2014).

Studies consistently report a generalised increase in the age at which children are permitted to start playing outside without adult accompaniment, together with a decline in the distances they are allowed to roam when doing so and an associated decline in children's active travel (Bassett *et al.*, 2015; Bhosale, 2017; Dodd *et al.*, 2021a; Fyhri *et al.*, 2011; Jelleyman, 2019; Schoeppe *et al.*, 2016; Shaw *et al.*, 2012, 2015). These changes have significant implications for children's play patterns with the extent of children's freedom directly influencing the size of geographical area they can access and therefore the range of spaces and people they can play in and with (Horton *et al.*, 2014; Waygood *et al.*, 2020). This in turn influences children's motivations to play outside and their satisfaction with opportunities for playing more generally (Barclay and Tawil, 2013; Dallimore, 2023; Loebach *et al.*, 2021), emphasising the importance of space for play in close proximity to homes (Arup, 2017; Barclay and Tawil, 2021; Bernard van Leer Foundation, 2019; Bornat, 2018; Carroll *et al*, 2015; Gill, 2021), as well as suggesting that spaces further away from homes, which might once have been accessible to children, may now be out of reach without adult assistance or at least until children are significantly older (Gill, 2021; Whitzman, 2017).

In a survey by Dodd *et al*. (2021a), parents were asked to report the age at which they recalled being allowed to play out (without adult accompaniment) and the age at which they did or would allow their children to do the same. The findings suggest that over time this age has increased by approximately two years, from an average of 8.91 years when the adults were children, to 10.74 years, although 6% of parents did not state an age because they would not let their children play out at all (Dodd *et al.*, 2021a). Similar trends have been found in other countries, for example Jelleyman *et al*. (2019), with a nationally representative sample of 2,003 parents in New Zealand, found that children aged five to twelve years old were 'seldom or never allowed to roam the neighbourhood without adults' (p. 14) and that thirteen was the most commonly reported age at which children would be allowed out to play without adult accompaniment (Jelleyman *et al.*, 2019). This again contrasts sharply

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[140] These ideas are introduced in chapter 2, section 2.2.3.

with the experiences of adults when they themselves were children. Bhosale *et al*. (2017), also in New Zealand, surveying generational changes across a large sample of directly related participants, including 544 children with an average age of 12 and 500 parents, found that the adults, when aged 10 to 12, had much greater permission for freedom of movement than their children experienced. This included being twice as likely to be allowed to travel to school and cross main roads unsupervised, five times more likely to be allowed to cycle on main roads, and three times more likely to be allowed to play outside after dark. A quantitative study by Schoeppe *et al*. (2016) involving a random sample of 1,293 adults in Australia, also found that nearly half of the adults surveyed said they would restrict the 'independent outdoor play' of eight- to twelve-year-old children to areas within sight, and over two thirds would restrict children's freedom of movement to less than 500m from home.

In practice, children's freedom of movement tends to emerge as a graduated and negotiated process between children and parents (Gill, 2018b; Nansen *et al*., 2015; Visser, 2020). Shaw *et al*. (2012), revisiting and building on the original work of Mayer Hillman (1990), explored changes across a range of measures or indicators of children's 'independent mobility' referred to as 'mobility licenses' which parents can grant to their children dependent on context and children's perceived level of proficiency. The authors report that in England in 2010 this process typically started around ages seven or eight and continued through to ages twelve or thirteen (with the exception of permission to go out alone after dark, which was granted to low percentages of both primary and secondary school children). Surveying children and parents in the same five areas in England and Germany (comprising urban, suburban and rural geographies) in 1971, 1990 and 2010, the research reveals changes in children's freedom of movement 'which are likely to be reflective of broader national trends' (Shaw *et al*., 2012, p. 18) over this 40-year period.

In subsequent studies, the 2010 data were compared with similar datasets from other countries, including England and Australia (Carver *et al*., 2013) and then a total of 16 countries, namely Australia, Brazil, Denmark, England, Finland, France, Germany, Ireland, Israel, Italy, Japan, Norway, Portugal, South Africa, Sri Lanka and Sweden (Shaw *et al*., 2015). In England, since the 1970s there has been a dramatic increase in the age at which children are granted permission by parents to move around the public realm without adult accompaniment, with an associated large reduction in freedom of movement for primary school aged children, although the rate of change between 1990 and 2010 was much smaller than had occurred over the previous 20 years (Shaw *et al*., 2015). The authors also found that whilst children's freedom of movement varied widely across the 16 countries studied, there were significant restrictions placed on children in nearly all those countries. Furthermore, whilst restrictions were greatest for children under the age of 11, 'even the oldest children are restricted in what they are allowed to do, at an age when many of the rights of adulthood are close to being granted' (Shaw *et al*., 2015, p. vi).

There are also clear trends towards children being accompanied more often by adults on both mandatory journeys to schools and discretionary journeys outside of school, with an associated increase in car use (Bassett *et al*., 2015; Fyhri *et al*., 2011; Shaw *et al*., 2012). Whilst in 2010, in England, a majority of primary school aged children were reported as walking to school, with little change since 1990 but a substantial reduction since 1971, more children were accompanied by an adult on this journey in 2010 (77%) than 1990 (64%) (Shaw *et al*., 2012). In England, adult accompaniment of primary school aged children on other journeys outside of school also increased from 41% of weekend journeys in 1971 to 62% in 2010, with children also taking at least twice as many unaccompanied weekend journeys in 1971 compared to 2010. This reduction was less pronounced for secondary school aged children (Shaw *et al*., 2012). Carver *et al*. (2013) also report that for journeys judged to be within walking distance of home, almost half of children were usually taken by parents and most parents reported using cars for these trips, with parents accompanying children on an average of 3.5 'round trips' within walking distance per week (Carver *et al*., 2013). This links to data from Wales suggesting that many children are heavily reliant on adults to transport them to places where they can play (Dallimore, 2019, 2023). Such trends appear to be even more pronounced in the USA where Bassett *et al*. (2015), citing statistics gathered by the National Personal Transportation Survey and the National Household Travel Survey, report patterns in young people's active travel and travel by vehicle have been inverted over a similar 40-year period.

4.2.6 Safety concerns and risk management and children's play in the public realm

There are many mutually dependent factors that influence – and in turn are influenced by – children's opportunities for play. Of all of these, adult concerns for children's safety have a significant impact on children's freedom and capability to play out in the public realm (Crawford *et al*., 2017; Dodd *et al*., 2021a; Jelleyman *et al*., 2019; Mansfield and Couve, 2020). Day (2023) locates such concern within the intensification of parenting in a neoliberal context that brings with it the expectation of greater levels of surveillance.

This section opens with a consideration of the literature on the complex decisions faced by adult caregivers and then discusses two key safety concerns, namely traffic and neighbourhood safety. The final section addresses how these issues play out across different and intersectional demographics.

Parents' safety concerns are commonly cited as a barrier to children's play in the public realm (Day, 2023; Lee *et al*., 2015). However, this can potentially overlook the other ways in which parents provide for their children's play (both within and beyond the home) and reduce the issue of parental permission to one of personal choice (Pynn *et al*., 2019). It also overlooks the many very real risks faced by those living in 'urban neighbourhoods characterized by structural marginalization as a result of intersecting structurally-rooted determinants including poverty, racism, discrimination, and social exclusion' (Gerlach *et al*., 2019, p. 80). Rather, within a discourse of childhood risks, parents and carers must be 'risk managers', constantly vigilant, to both protect children and avoid criticism from other adults (Day, 2023; Mainland *et al*., 2017; McQuade *et al*., 2019; Pynn *et al*., 2019; Rixon *et al*., 2019), with news and social media often serving to amplify parental guilt and perceptions of risk (Chaudron *et al*., 2017; Talbot, 2013).

Proponents of children's active outdoor play have raised particular concerns about the apparent rise in 'hyper' or 'helicopter' parenting (Bristow, 2014; Creasy and Corby, 2019), referring to parents who become so involved in their children's lives that those children have little freedom beyond the supervision and control of adults. Reasons given for the emergence of these intensive parenting strategies include responses to a climate of inflated danger and/or a desire to ensure children achieve an optimal level of performance (Tremblay *et al*., 2015); in both cases, parenting approaches are influenced by socio-cultural and environmental conditions. Tremblay *et al*. (2015) report that various types of 'hyper-parenting' are associated with reductions in children's physical activity levels and higher rates of adolescent anxiety and depression. However, Visser *et al*. (2015) critique the similar term 'paranoid parenting', arguing that given the high-risk, low social support context in which parents raise their children, a better term may be 'realistic parenting'.

Parents, as gatekeepers in respect of children's freedom to play outside, need to feel comfortable that where they live is safe enough for their children to play without significant risk of serious harm (Loebach, 2021), with parents adopting more protective strategies in response to environments that feel more dangerous (Brown *et al*., 2019; Visser *et al*., 2015). Concerns are amplified for particular children and particular groups of caregivers. In one study, a group of foster carers had said that they restricted the play of their foster children more than that of their own biological children, and that they 'had to be far more risk averse than with their own children', since if something went wrong, they would be responsible and lose their careers (Russell *et al*., 2020, p. 35). Similarly, Barclay and Tawil (2021) found that parents of children being educated in Pupil Referral Units (PRUs) were following the advice of support services and keeping children indoors because their behaviour had meant they were subjected to bullying and that their involvement in incidents could bring them to the attention of the police, showing the

blurring of adult constructions of children as both *at* and *as* risk. These examples show how, for some children, particularly poor children, children of colour, refugees and asylum seekers and children from Gypsy, Roma and Traveller communities, the risks of being outdoors in the public realm are greater than for others. Risks can include higher traffic levels, higher crime rates and more likelihood of attack, racial abuse or arrest (Barclay and Tawil, 2021; Dias and Whitaker, 2013; Giles *et al*., 2019; Goff *et al*., 2014; Horton and Kraftl, 2018a, 2018b; Pinckney *et al*., 2019; Russell *et al*., 2019).[141]

Given this, some argue that generalising statements about risk-taking in play and about adult over-protection invisibilise those at greater risk and blame caregivers for what are often structural issues (Bauer *et al*., 2021; Gerlach *et al*., 2019; Giles *et al*., 2019). As Talbot (2013) suggests 'situating research in time and space, rather than in universalistic accounts of a cultural drift, allows for a more complicated understanding of the role of risk and community in the lives of parenting' (Talbot, 2013, pp. 232-233).

Malone and Rudner (2016) suggest that adults who care for children must weigh up what they perceive to be the benefits of children experiencing freedom, what children want, the apparent risks and children's ability to cope with those risks. The resulting risk-benefit judgements, whilst highly subjective and idiosyncratic, determine the extent to which adults feel it necessary to supervise, monitor, intervene in, or constrain children's play (Cowan, 2020).

Children whose parents are more tolerant of risk and have more positive attitudes towards their children engaging with risk have been found to experience more freedom and time for playing (Dodd *et al*., 2021a; Foster *et al*., 2014). However, other studies suggest that most adults recognise the value of children engaging with some risk but that within the context of the public realm, the scale of risks children may be exposed to are often perceived as too big to overcome (Jelleyman *et al*., 2019; Rixon *et al*., 2019). Shaw *et al*. (2015) also suggest that the narrow range of death rates but varying levels of children's freedom of movement observed across each of the 16 countries in their study could be interpreted as showing that most parents have a similar tolerance in respect of the level of risk they are willing to expose their children to and that the freedom they grant their children is more dependent on environmental conditions within these countries.

Overwhelmingly, in minority world contexts, these concerns are associated with the dangers posed by traffic and perceptions of neighbourhood safety (Alparone and Pacilli, 2012; Bassett *et al*., 2015; Dodd *et al*., 2021; Fyhri *et al*., 2011; Jago *et al*., 2009; Jelleyman *et al*., 2019; Lee, 2015; McQuade *et al*., 2019; Shaw *et al*., 2015; Tremblay *et al*., 2015), both of which, over time, have had an increasingly constraining effect on children's opportunities for play (Ball and Ball-King, 2021; Frohlich and Collins, 2023; Lee *et al*., 2015), particularly in the past 50 years, but also dating back much further (Cowman, 2017). These safety concerns in turn place a greater emphasis on parents to provide for their children's play, including being willing and able to take them to places where they can play (Day, 2023; Gill, 2021; Veitch *et al*., 2007).

Historically, societal approaches to addressing these dangers in the UK have emphasised the responsibility of individual children and parents to manage the risks, with the effect of removing children from the wider public realm in the name of safety, rather than comprehensively tackling these issues at source and/or supporting a more community-based response that seeks not only to reduce injury risk but also to enable access to healthful activity (Ball and Ball-King, 2021; Cowman, 2017). For example, in the UK, Ball and Ball-King (2014, 2021) argue that traditional approaches to risk management have their basis in systems engineering (where the elimination of risk in an industrial or work environment is a predominantly reasonable endeavour), but are not suitable for social, leisure or play contexts. One reason for this is that they do not take into account the benefits of behaviours and activities that may be deemed risky. Another is that they do not consider any costs or risk in the

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[141] See also section 4.3 and section 3.3.3 in chapter 3.

risk mitigation measures themselves, which can sometimes seem disproportionate once a risk-benefit analysis has been undertaken. It could be argued, as Shaw *et al*. (2012, 2015) suggest, that campaigns like 'stranger danger' and 'one false move' of the 1980s and 1990s placed the emphasis on removing children from the danger rather than removing the danger from children, further eroding children's freedom to play (Hillman, 2006). In the UK, the much-reduced rates of road traffic injuries over time appear to have been predominantly attained by compelling children to be accompanied by an adult to a later age in their childhood (Shaw *et al*., 2015). Similar arguments have been made about the provision of public playgrounds, which were also introduced in response to concerns about children's safety and welfare on the street, as well as their perceived delinquency (Hahn, 2018; Murnaghan, 2019; Russell *et al*., 2021), which have unintentionally contributed to a situation where children's play is often deemed 'out of place' beyond these spaces (Wood *et al*., 2019).

The rise of traffic and private car ownership

'The erasure of children from cityscapes represents a present-day mobility injustice that threatens the liveability and resiliency of our cities. Automobile-centric planning has normalised the dependence on automobiles for even the shortest of trips, such as children's journeys to school, while stoking parental concerns about stranger-danger and traffic accidents that further constrain children's IM [independent mobility]' (Frohlich and Collins, 2023, p. 2).

Cowman's (2017) study of the history of play streets between 1930 and 1970 illustrates the pervasive and eroding influence of traffic and private car ownership on children's freedoms to play. The early play streets movement was characterised by working-class mothers 'struggling to maintain traditional street sociability against gathering power of business interests and car-focussed affluence' as far back as the 1920s (Cowman, 2017, p. 236). Throughout the early and mid-twentieth century residential streets were important sites for sociality, particularly amongst working class women and children, with street play initiating much of the social contact between women through informal and collective supervision of young children playing outside on the streets near their homes. However, at the same time, a steady rise in motor vehicle traffic and associated alarming rates of pedestrian injuries and fatalities from the late 1920s onwards increased concerns for children's safety (Cowman, 2017).

In response, two distinct approaches emerged. A dominant approach sought to remove children from traffic, with many proponents seeing street play as an indicator of urban decay, and a source of juvenile delinquency (Frohlich and Collins, 2023; Hillman, 2006; Shaw *et al*., 2012, 2015). Responses included the child safety campaigns and the rise in designated play provision (Hahn, 2018; Murnaghan, 2019; Russell *et al*., 2021), both of which were aimed at removing children from the risks of the street. Another, more radical approach, sought to remove traffic from children by the daily closure of selected residential streets to traffic at certain times of the day, thereby enabling children to play. The main target of these interventions was more affluent car owners driving through working-class urban areas, with play streets based on the premise 'that cars, not children, were the main problem' (Cowman, 2017, p. 241). The first play street legislation was enacted in 1938, after several local initiatives, with play streets running in this form until the 1970s, when the increasing power of business interests and car owners over local mothers led eventually to their demise (Cowan, 2017).

As stated previously, the number of cars licenced in Great Britain has risen by 39.6% over the last 25 years (NimbleFins, 2022). Studies confirm a direct correlation between high car ownership, number of cars per household, and higher use of cars for things like school journeys (Carver *et al*., 2013; Shaw *et al*., 2015). Busy parental work patterns, increased travel distances to school, and transportation of children to organised activities and commercial play provision outside of their immediate neighbourhoods, further contribute to cars being the most convenient form of transport for many, with 'the routine nature of life … based on habitual use of the car' (Fyhri *et al*., 2011, p. 707).

In England, car use for school journeys has doubled over the past two decades, and as many as one in four cars on the road at morning peak times are taking children to school (Kumar *et al*., 2020). A survey carried out by Sustrans (2020) in the midlands and east of England found that 54.2% of parents said that their children did currently walk, cycle or scoot to school. Of the 34.1% of parents that drove their children to school, 73% said they would prefer their children to go to school using active travel means. Although distance and time were factors, safety concerns topped the reasons why parents drove their children to school. Safer crossings, wider pavements and less traffic near schools were the most cited things that parents said would help them switch to active travel. Christie *et al*. (2011) also found that despite high levels of bike ownership amongst children living in economically poor areas and a strong preference from children for making journeys by bike, most parents felt it was too dangerous, resulting in only moderate use of bikes amongst children aged nine to fourteen, including very low rates of cycling to school.

The Sustrans survey (2020) echoes other research noting that as the volume of traffic increases so do concerns for pedestrian safety, further increasing the use of vehicular transport, and decreasing children's freedom of movement (Bassett *et al*., 2015; Bhosale *et al*., 2017; Fyhri *et al*., 2011; Jelleyman *et al*., 2019; Loebach *et al*., 2021; Pont *et al*., 2009; Shaw *et al*., 2012, 2015). The numbers of children killed or seriously injured on roads dropped steadily by 84% from 1979 to 2013 (Department for Transport, 2014). More recent data show that it has continued to fall, although there was a slight rise in 2021 on the previous year because of the effect of the COVID-19 pandemic lockdowns on traffic levels and movement of people generally (Department for Transport, 2022b). In April 2020 during the first lockdown in the UK, child road casualties dropped by 84% compared to the three-year average from 2017 to 2019, and then by 37% in the second lockdown in the same year. This could be due both to lower traffic levels and to school closures (Department for Transport, 2021a). In 2021, 16 girls and 30 boys were killed on the roads and 4,981 girls and 7,268 boys were injured (Department for Transport, 2022b). 28% of children and young people aged 0 to 20 killed or injured on the roads were pedestrians (Department for Transport, 2022c), with significant peak times being morning and particularly afternoon school drop off times and with far higher numbers in rural than urban areas (Department for Transport, 2022c).

As Shaw *et al*. (2012, 2015) point out, much of the reduction in child injuries and fatalities on the road has been achieved through reductions in children's freedom of movement, with parents accompanying children more often, and children again undertaking many more journeys by car. In addition, private car ownership and the space required to park all these vehicles, together with the widening of streets and narrowing of pavements to accommodate them, has massively eroded potential space for playing (Department for Transport, 2019a; NimbleFins, 2022; Sustrans, 2020; White, 2019). This removal from the streets of both space for children and of children themselves equates to a removal of children's capability to play. It is an illustration of spatial injustice and the priority given to the economy over children's and communities' wellbeing (Bollier, 2016; Monbiot *et al*., 2019; Russell *et al*., 2020; Wood *et al*., 2019).

Social networks, community cohesion and perceptions of neighbourhood safety

The domination of cars, both moving and stationary, in residential streets has implications for the sociality of streets. Hart and Parkhurst (2011), in replicating Appleyard's (1969) research on the association between traffic volumes on residential streets and neighbourhood social interaction, found once again that residents reported fewer friends and acquaintances on streets with higher volumes of traffic.

'Even on one of the quietest streets … the occasional speeding car was enough to create the perception of a potentially dangerous environment and prevent children from playing in the street. In a knock-on effect, this also prevented adults (who would not then be minding their children while they were playing) from socialising in the street' (Hart and Parkhurst, 2011, p. 18).

The withdrawal of both children and adults spending time outside in the public realm close to homes, with an associated reduction of incidental meetings between local residents and a subsequent erosion in community relations, in turn leaves space open for more fears about unknown others to emerge (Russell and Stenning, 2021). A lack of trust in others contributes to public perceptions of crime being substantially higher than statistics would suggest (Alparone and Pacilli, 2012; Lee *et al*., 2015), a situation exacerbated by media coverage of violent crimes, particularly tragic incidents involving children (Gill, 2007). For example, despite the risk of total stranger abduction remaining low, this remains a significant concern for parents in many studies, influencing the freedom they allow their children (Lee *et al*., 2015; Tremblay *et al*., 2016). However, studies also find a stronger correlation between parental concerns over road safety and subsequent restrictions on children (Zougheibe *et al*., 2021).

Parents report a range of strategies they employ to mitigate these concerns including setting spatial and temporal limits on their children's activities (for example, making sure they stay close to home or come home at an agreed time), only allowing children to go out with friends or when accompanied by known adults, driving them to places where they can play, and insisting that they carry a mobile phone (Alparone and Pacilli, 2012; Jago *et al*., 2009; Lee *et al*., 2015). These fears also tend to be greater after dark, with studies having concluded that additional daylight-saving measures, leading to lighter evenings, could help to improve children's physical activity levels (Goodman *et al*., 2021).

Studies into children's outdoor play consistently find that, across communities of different socio-economic status, children are more likely to experience freedom to play out and about, and to spend more time doing so, where their parents perceive a higher level of social cohesion in their neighbourhood and have greater trust in their neighbours (Boxberger and Reimers, 2019; Loebach *et al*., 2021; Long, 2017; Pacilli *et al*., 2013; Parent *et al*., 2021; Schoeppe *et al*., 2016; Suchert *et al*., 2015; Veitch *et al*., 2017). The extent of parents' neighbourhood social networks and associated sense of community has a significant influence on their perceptions of social dangers (Alparone and Pacilli, 2012; Foster *et al*., 2014; Lee *et al*., 2015; Visser *et al*., 2015). Conversely, limited neighbourhood social networks, and an associated reduced sense of community, results in parents' reluctance to allow their children to spend time outdoors independently of parental oversight (Lee *et al*., 2015; Visser *et al*., 2015). Parents who hold negative perceptions of their neighbourhoods are more likely to restrict children's play to places where they can be protected by adults, such as friends' houses, religious institutions or youth clubs (Visser *et al*., 2015), with social isolation impacting on parents' decision-making on the tensions between the safety and freedom of their children (Talbot, 2013). This is a vicious circle because people who are fearful of their neighbourhood environments are less likely to create connections with other residents or become familiar with local geographies, further compounding fears about unknown others and unknown spaces (Visser *et al*., 2015).

Such informal social networks, often consisting of numerous weak social ties (with perhaps just a degree of amiable familiarity between residents), also offer the potential for informal social support and supervision of children (Visser *et al*., 2015). Many studies have again found a positive relationship between the extent of parents' neighbourhood networks, their perceptions of informal supervision available, and children's freedom to play outside (Foster *et al*., 2014; Furneaux and Manaugh, 2019; Holt *et al*., 2015; Hooper *et al*., 2015; Prezza and Pacilli, 2007; Villanueva *et al*., 2011). These interconnected experiences, perceptions and practices are neatly summed up by Foster *et al*. (2014) who use the term 'collective efficacy' to describe this form of social capital, reflective of a presumption that other residents will intervene where and when it is needed for the community's benefit. However, findings in this regard appear to be mixed. Across 16 countries, Shaw *et al*. (2015) found no clear correlation between a country's independent mobility ranking and adults' trust in other neighbourhood adults to look out for their children. Foster *et al*. (2014) also found that despite parents of children with more freedom of movement perceiving there to be a greater level of informal social supervision available, this did not appear to reduce the influence of fear of strangers. The authors suggest, however, that given only 4% of parents thought it 'very likely' that other people in their neighbourhood would intervene for the benefit of children in all of the proposed scenarios, the level of informal social supervision perceived to be available may not have been

at a sufficient threshold to alleviate deeply entrenched fears about strangers (Foster *et al*., 2014). Crawford *et al*. (2017) found that although parents acknowledge the low likelihood of assault or abduction, they felt that any risk was unacceptable.

Children's perceptions of community safety also matter, with strong links found between children's feelings of safety and parents allowing children out to play (Dallimore, 2019, 2023). Children who report playing out less often also report greater concerns about their safety in the public realm (Loebach *et al*., 2021; Zougheibe *et al*., 2021). Traffic, strangers, fear of crime, dangerous dogs and the threatening or intimidating behaviour of older children are frequently cited concerns given by children about playing outside (Brockman *et al*., 2011; Dallimore, 2019, 2023; Long, 2017; Shaw *et al*., 2012; Veitch *et al*., 2007), with studies suggesting that 'stranger danger' may be more of an issue for children than it is their parents (Zougheibe *et al*., 2021).

A mixed methods study of nine- to eleven-year-olds in inner city Auckland, New Zealand highlighted how 'the capacity for public spaces to become enabling places for children can be fragile and easily undermined' (Witten *et al*., 2019, p. 1244) by encounters with bullying older children or with adult drinkers or drug users. However, there is also evidence that parental concerns about children's safety often outweigh those of children themselves and therefore have a much greater influence on children's freedom to play in the public realm. For example, Shaw *et al*. (2012) identified that the majority of children in their large-scale quantitative study, reported feeling 'very safe' or 'fairly safe' in their local area but despite this many were still highly restricted in terms of their freedom of movement.

Parents' perceptions of neighbourhood safety and their attitudes towards spending time outside have also been found to have a strong influence on children's developing views about their neighbourhoods (Foster *et al*., 2014; Loebach, 2021). Being warned about dangers is positively linked to increased risk awareness; for example, research by Pacilli *et al*. (2013) found the more they had received warnings about dangers present in the public realm, the more they were concerned about safety, with girls receiving more frequent warnings. Concerns have also been levelled in respect of the focus on 'stranger danger', proposing it can lead to 'mean world syndrome', whereby children come to view all adults with suspicion and may subsequently become disengaged from civic life (Glassner, 2010).

Different childhoods, perceptions of risk and children's (perceived) vulnerabilities

In general terms, numerous but varied studies evidence how concerns for children's safety are affected by demographic factors (Lee *et al*., 2015; Loebach *et al*., 2021; Zougheibe *et al*., 2021) and associated structures of society that serve to position some children as being more vulnerable – and/or more of a risk – than others (Barclay and Tawil, 2021; Dias and Whitaker, 2013; Giles *et al*., 2019; Goff *et al*., 2014; Horton and Kraftl, 2018a, 2018b; Pinckney *et al*., 2019; Russell *et al*., 2019). Consequently, some children are more likely to experience greater constraints on their freedom of movement and opportunities to play outside than others. Parents' perceptions of their children's competence to cope with environmental hazards is a key determinant of the freedom they are afforded in the public realm (Lee *et al*., 2015). For most children, age is a key factor, with parents gradually granting their children greater freedom as they get older (Alparone and Pacilli, 2012; Lee *et al*., 2015; Loebach *et al*., 2021; Shaw *et al*., 2012; Zougheibe *et al*., 2021). However, where parents perceive their local environments to be less safe, the age at which children are then seen as being able to cope with this heightened level of risk will increase (Carver, 2017). Having older siblings can also mean that children are allowed to play outside without an adult from a younger age (Alparone and Pacilli, 2012; Dodd *et al*., 2021a), with children in large families also tending to spend more time outside playing (Mullan, 2019).

Evidence suggests that the structure of schooling has a significant influence on this age dependent permission, with the final year of primary school and the subsequent transition to secondary school being a period when children are typically afforded greater autonomy (Carver *et al*., 2013; Jago *et al*., 2009; Visser *et al*., 2015). However, as previously identified, despite increasing freedom of movement, time spent playing outside tends to reduce as children reach adolescence, with research suggesting this may be more pronounced and occur at an earlier age for girls than boys (Cleveland *et al*., 2010; Helleman, 2021; Suchert *et al*., 2015). Research into children's own perceptions of safety highlights teenagers' pervasive fears about going out in public in urban areas, including fear of crime (particularly knife crime, exacerbated by social and mainstream media), harassment, anti-social behaviour and public disorder, and poorly maintained and designed spaces that feel scary (especially in the dark) (Children's Commissioner for England, 2021).

In general, being female has been found to be associated with less time spent playing outside and lower levels of freedom of movement (Loebach *et al*., 2021; Pacilli *et al*., 2013; Zougheibe *et al*., 2021), although not necessarily any reduction in satisfaction with opportunities for play (Dallimore, 2019). Equally, boys are routinely reported as spending more time outside playing and being permitted more freedom than girls, including being allowed out more often, under less supervision, staying out later and having larger roaming distances (Bornat and Shaw, 2019; Helleman, 2021; Lee *et al*., 2015; Loebach *et al*., 2021; Mansfield and Couve, 2020; Mullan, 2019; Villanueva *et al*., 2014; Zougheibe *et al*., 2021). Mullan (2019) also found that girls spent more time doing homework and housework, whilst boys spent more time on screen-based activities.

Findings in respect of these gendered differences are mixed, however they appear to increase with age and are likely influenced by heightened concerns for girls' safety, as well as perceptions of cultural expectations of what it is appropriate for girls and boys to be allowed or encouraged to do (Boxberger and Reimers, 2019; Helleman, 2021; Lambert *et al*., 2019; Loebach *et al*., 2021; Martins *et al*., 2015; Shaw *et al*., 2012, 2015). Alparone and Pacilli (2012) found that maternal perception of social danger was a strong predictor of children's freedom of movement and that this was significantly greater for girls. They also draw attention to this gendered trend extending through to adult life, with women often deterred from travelling alone, especially at night, due to heightened concerns about violence towards women (Alparone and Pacilli, 2012). Foster *et al*. (2014) also found parental fear of strangers to be higher for girls than boys, and point to evidence that in rare cases of abduction, girls may be at more risk.

Such societal conditions tend to position girls as more vulnerable than boys, with positive perceptions of neighbourhood safety taking on even greater importance for girls. For example, Visser *et al*. (2015) found that whilst for boys, parental regulations were directed at what were perceived to be risk-taking behaviours (such as not using alcohol or drugs, avoiding fights or other trouble and staying away from particular peers), for girls it was more about not being out after dark and avoiding people and places that were perceived to be dangerous. Such perceptions generalise boys 'as trouble' but girls 'in trouble' (Visser *et al*., 2015). Heightened concerns for girls' safety means that the walkability of neighbourhoods (the extent to which children can easily and safely get around on foot) has greater influence on girls' freedom of movement than it does boys' (Lambert *et al*., 2019; Riazi *et al*., 2019; Villanueva *et al*., 2014), with boys in general being permitted greater freedom of movement from a younger age irrespective of the design of their neighbourhoods (Villanueva *et al*., 2014). One Swedish study found adolescent girls to be many times more likely to report fears about public spaces compared to their male counterparts (Akerman *et al*., 2017, cited in Wood *et al*., 2019).

Several studies contest the notion that gender is a significant influencing factor in children's propensity for outdoor play, suggesting instead that the availability of social companions, the quality and accessibility of playable space, and the type and range of opportunities available, may have greater influence (Brussoni *et al*., 2020; Lee *et al*., 2015; Marzi *et al*., 2018). Shaw *et al*. (2012) report that despite gender being a significant factor in the granting of parental licenses in 1990, by 2010 there were only small differences between primary school aged girls and boys in England. For children in secondary school, the main difference was fewer girls being allowed to go out alone compared to boys (Shaw *et al*., 2012). In 2015, Shaw *et al*. again found no significant difference between girls and boys across the 16 countries studied, but more boys than girls again reported spending time with friends outside after dark at weekends.

When exploring children's neighbourhood sense-making, Porter *et al*. (2021) identify many similarities in girls' and boys' spatial preferences, including an attraction towards mundane urban design features, architectural points of interest, natural elements such as trees and blossom and neighbourhood animals, the accessibility of cafes, good pavements for scooting and safe roads for cycling, all of which contributed to children's sensory and imaginative engagement with their particular localities. However, there were also significant differences in respect of the places children did not like. Boys were noted to avoid places like busy intersections, were annoyed by cars that played loud music, or places that were dirty and poorly maintained. Girls' accounts on the other hand were abundant with vivid fears and anxieties, and in some cases a palpable 'sense of potential imminent danger' (Porter *et al*., 2021, p. 347). These fears included threats posed by strangers (particularly men), risks of molestation or kidnap, drunken or drug induced behaviour, and being left alone in public spaces. Consequently, there were places that the girls would only visit if accompanied by a parent (Porter *et al*., 2021).

Disabled children are more likely to be less satisfied with their opportunities for play, spend less time outside playing, and be more restricted in where they can go (Dallimore, 2019, 2023; Dodd *et al*., 2021a; von Benzon, 2017). Adults responsible for disabled children, both parents and professionals, tend also to have a lower tolerance of risk-taking for their disabled children (Beetham *et al*., 2019; von Benzon, 2017). Memari *et al*. (2015) found that autistic children's engagement in leisure and play activities was closely associated with other variables including gender and family income.

Such limits on disabled children's capability to play outdoors stem both from disabling attitudes that affect the physical design of the public realm (RTPI, 2021; Stafford *et al*., 2020) and from over-protection by or intimidation from others (von Benzon, 2017). The quality of the environment affects the mobility and the social participation of disabled children. For children with mobility impairments, issues that affect non-disabled children are magnified, for example, parked cars, moving traffic, absent footpaths and poor maintenance (Stafford *et al*., 2020). Horton's (2017) study found that families framed the 'barriers' to playing outdoors less in terms of access and more as barriers to fun and comfort.

Much of disabled children's outdoor play tends to be accompanied and supervised by adults, even for older children. In her research with learning disabled children aged 11 to 16 years, von Benzon (2017) described how supervising adults were concerned about the young people misbehaving when outside in public places and so monitored them closely, only relaxing a little when they were in wide open spaces. The young people were accustomed to high levels of surveillance and appeared to value being out of earshot more than out of sight. Even when allowed some level of mobility without accompanying adults, the young people preferred supervised locations such as shopping centres and supervised activities, most probably because of fear of violence and negative reactions from others. Exceptions were when young people sought refuge in outdoor spaces to escape problems at home (von Benzon, 2017).

The risks faced by Black children playing out stem, in similar ways, from the de-humanising constructs of the 'white racial frame' (Pinckney *et al*., 2019, p. 4) that encompasses persistent racial stereotypes, prejudices, ideologies, images and narratives, and that serves to perpetuate negative images of young Black people,

particularly boys. A growing body of research confirms a 'systemic cultural prejudice' (Dumas and Nelson, 2016, p. 29) where Black children are often perceived as being older than they actually are, less 'childlike' than their white peers, with associated connotations for judgements about their perceived childhood innocence (Dumas and Nelson, 2016; Goff *et al*., 2014; Pinckney *et al*., 2019). Mothers of Black children, themselves disproportionately subject to surveillance and intervention, feel they have to protect their children, particularly their sons, from neighbourhood violence and from criminalisation (Elliott and Read, 2019). Many studies addressing this are from the USA, where Black children face high stakes if they come to the attention of the police given the shooting by police of Black children playing out (Elliott and Read, 2019; Pinckney *et al*., 2019). In the UK, Black people were seven times more likely to be stopped by police under stop and search powers than white people (Home Office, 2022). Wallace's (2018) research with Black Caribbean young people in both London and New York City found that 42% of participants, all male, had been stopped by police on the way to and from school and nearly all had witnessed others being stopped and searched. The participants felt that wearing school uniform should signal both their youth and their compliance with education and therefore other social systems and were affronted that this was not the case. Although the UK participants were aware that UK police were not likely to shoot them, as they knew had happened in the USA, stop and search and the fear of being stopped by police, made them feel unsafe in the public realm and can engender distrust in law enforcement systems (Wallace, 2018).

Boxberger and Reimers (2019, p. 13) in their systematic review, find that 'children of mothers of an ethnic minority played less time outdoors than children of mothers from the ethnic majority' (see also Parent *et al*., 2021). In a UK context, evidence suggests that children who are white are more likely to be allowed to play out from a younger age and experience greater freedom of movement (Aggio *et al*., 2017; Dodd *et al*., 2021a). Studies also reveal the challenges experienced by children from minority ethnic backgrounds and those who have moved to the UK from another country (Allport *et al*., 2019; Barclay and Tawil, 2021; Giralt, 2011), with children who speak English at home also having been found to spend more time playing outdoors (Wen *et al*., 2009). Much of this is to do with children and families being less familiar with their localities, having fewer social connections, and feeling less safe (Cronin-de-Chavez *et al*., 2019), but there are also (again) systemic cultural prejudices that serve to marginalise particular groups of children, as well as instances where children are mean to others because of their accent or appearance. For example, in Barclay and Tawil's (2021) research in south Wales, children from the Gypsy, Roma and Traveller (GRT) community identified the attitudes and actions of other people as a significant constraining factor on their play, with this being more of an issue for girls than boys. The girls only identified friends from within the Gypsy, Roma and Traveller community and referred to others outside this community as 'gorgers' who could not be trusted, leading to the conclusion that these children were both 'socially and psychologically isolated from the rest of society' (Barclay and Tawil, 2021, p. 18), with direct interventions required to help build their sense of social trust.

British children of South Asian descent, and again particularly girls, have repeatedly been reported as having lower levels of physical activity compared to children of other ethnic backgrounds in the UK, with time taken up by religious practices and a greater emphasis on academic related activities (such as homework) being identified as particular issues for some of these children (Eyre *et al*., 2015; Smith *et al*., 2018). However, in their study with children from two areas of low economic status in Coventry, Eyre *et al*. (2015) found no differences in respect of children's ethnicity with regards to their preferences for physical activity, with most children reporting that they preferred playing outside and acknowledging that they were less physically active when indoors. Whilst cultural beliefs and practices shaped children's opportunities to some extent, a range of other socio-environmental influencing factors were identified, more closely associated with children's socio-economic status and common to all children involved in the study, irrespective of their ethnicity.

Findings with regards to ethnicity and socio-economic status are mixed, and how this plays out is likely to be dependent on where children live (Parent *et al*., 2021). However, there is a close association between the two, with families of minority ethnic backgrounds more likely to live in poorer areas (Child Poverty Action Group, 2024; Wang and Ramsden, 2018) and therefore having to cope with the difficulties this presents (Visser *et al*., 2015). From Boxberger and Reimers' (2019) systematic review, research finds that mothers in poorer neighbourhoods

reported more fears about their children playing outside (Kimbro and Schachter, 2011) and had fewer social relationships (Brockman *et al*., 2009), meaning that they benefitted less from neighbourhood social support (Watchman and Spencer-Cavaliere, 2017).

There are also studies where children from higher income families, and those whose parents hold higher qualifications, experience less freedom of movement and spend less time playing outside, spending more time in adult-facilitated structured activities (Boxberger and Reimers, 2019; Carroll *et al*., 2015; Mullan, 2019).[142] Children of unemployed mothers and lone parent households have also been found to spend more time playing outside (Boxberger and Reimers, 2019; Mullan, 2019). However, in Britain, Dodd *et al*. (2021a) found that whilst children of parents/carers of a lower socioeconomic status spent the most time playing overall, this was primarily at home or in other people's homes rather than outside.

The above findings reveal the intersectionality of forces that may affect children's outdoor play. However, when paying further attention to the multitude of factors that shape children's time and space for playing, this might, as Horton and Kraftl (2018a) suggest, be better understood as 'extra-sectionality', that is the ways that the everyday materialities of children's neighbourhoods as well as social and political intersectionalities combine to produce spaces that support and/or constrain different children's capability to play. Such a position re-emphasises the need for research at a hyper-local level to account for the socio-material spatial conditions of children's lives (Russell *et al*., 2020).

4.2.7 Children's capability to play out

At this point, we return to our proposal of a relational capability approach to children's wellbeing and read this through the conditions that support or constrain children's capability to play out. The capability approach makes a distinction between the opportunities and freedoms people have to do and be the things they value and whether or not people can or do 'convert' resources into 'functionings' (they actually do and are the things they value) (Children's Neighbourhoods Scotland, 2018; Owens *et al*., 2021; Robeyns, 2017; Schweiger, 2016). Both are necessary for children to have the capability to play. An example of an opportunity may be a relatively car-free street, but actually playing out in such a street depends on the capability to convert the resource of the street into that functioning. Conversion factors have been divided into three interrelated and interdependent levels:

- personal (variously interpreted as an individual's embodied skills, limits, dispositions and/or resources)
- social (cultural, economic, political and social norms and resources)
- environmental/structural (for example the physicality of the built environment, infrastructure, institutions, public goods and natural resources) (Owens *et al*., 2021).

Children's opportunities to play, their experiences of play and their propensity to play are all affected by and also affect their own characteristics, the structures of society and the psychosocial, sociocultural and physical conditions of the particular localities in which they live (Alparone and Pacilli, 2012; Pacilli *et al*., 2013; Shaw *et al*., 2012; Veitch, 2007). Understanding these localised conditions, particularly those that can be changed, is essential to understanding what more may be done to protect and improve conditions for playing (Loebach *et al*., 2021). Doing so requires a recognition that these conditions are dependent on an assemblage of factors which are themselves mutually dependent and interrelated, indivisible from each other and therefore in need of being investigated together (Alparone and Pacilli, 2012). Acknowledging the complexities and interdependencies of these influencing factors has led several researchers to propose a socio-ecological approach to analysing localised

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[142] See section 5.6.2 for a further exploration of this issue.

conditions for play, paying attention to non-linear associations and the ways in which different factors have varying influence at different scales, from the proximate to the distal (Badland *et al*., 2016; Barclay and Tawil, 2015; Chaudron *et al*., 2018a; Colvert 2021; Lee *et al*., 2015; Loebach *et al*., 2021; Oliver *et al*., 2015; Parent *et al*., 2021). Ansell's (2009) notion of a 'flat ontology' resists the hierarchical ways in which the different scales (micro/macro) of these influencing factors and their relationships to children's experiences tend to be considered by 'flattening' out such a socio-ecological approach, working outwards from children's immediate localities to explore the influence and entanglements of spatially disparate forces, each affecting and being affected by the others.

This section offers a brief summary of the key personal, social and environmental conversion factors affecting children's capability to play out (Owens *et al*., 2021) that emerged from the literature. Although we have categorised some factors as personal, it should be stressed that these are not 'possessed' by individuals but are produced through the entanglements of personal characteristics and socio-political forces. They are considered in more detail in section 4.3.

Personal factors

- Children's

  - age and perceived level of competence (Alparone and Pacilli, 2012; Janssen *et al*., 2015; Lee *et al*., 2015; Loebach *et al*., 2021; Shaw *et al*., 2012; Zougheibe *et al*., 2021);

  - gender (Bornat and Shaw, 2019; Boxberger and Reimers, 2019; Helleman, 2021; Lambert *et al*., 2019; Lee *et al*., 2015; Loebach *et al*., 2021; Mansfield and Couve, 2020; Martins *et al*., 2015; Mullan, 2019; Shaw *et al*., 2012, 2015; Villanueva *et al*., 2014; Zougheibe *et al*., 2021);

  - dis/ability, neurodiversity and mobility (Beetham *et al*., 2019; Dallimore, 2019; Dodd *et al*., 2021a; Horton, 2017; Memari *et al*., 2015; Stafford *et al*., 2020; von Benzon, 2017); race and ethnicity (Aggio *et al*., 2017; Allport *et al*., 2019; Barclay and Tawil, 2021; Dumas and Nelson, 2016; Elliott and Read, 2019; Giralt, 2011; Goff *et al*., 2014; Pinckney *et al*., 2019; Wallace, 2018; Wen *et al*., 2009);

  - socioeconomic status (Boxberger and Reimers, 2019; Loebach *et al*., 2021; Long, 2017; Pacilli *et al*., 2013; Parent *et al*., 2021; Schoeppe *et al*., 2016; Suchert *et al*., 2015; Veitch *et al*., 2017).

- Presence of older siblings and numbers of children in the household (Alparone and Pacilli, 2012; Singer *et al*., 2009).

- Children's motivations, preferences and interests, associated with children's perceptions of neighbourhood safety and the availability of friends to play with (Cleland *et al*., 2010; Loebach *et al*., 2021; Shaw *et al*., 2012; Veitch, 2007).

- The appeal of (predominantly indoor based) digital technologies (Bailey, 2021; Bhosale *et al*., 2017; Chaudron *et al*, 2018a; Colvert, 2021; Eyre *et al*., 2015; Grimes, 2015; Loebach *et al*., 2021; Loebenberg, 2013; Marsh *et al*., 2016b, 2020; Ruckenstein, 2013; Willet, 2017; Verdoodt *et al*., 2021).

Social factors

- Cultural norms and expectations of parents, with parenting styles influenced by particular views of children and childhood and affecting permission for playing out (Allport *et al*., 2019; Bacon, 2018; Bhosale *et al*., 2017; Carroll *et al*., 2015; Day, 2023; Dodd *et al*., 2021a; Foy-Phillips and Lloyd-Evans, 2011; Holloway and Pimlott-Wilson, 2014; Holt *et al*., 2015, 2016; Jelleyman *et al*., 2019; Lee *et al*., 2015; Loebach *et al*., 2021; Mainland *et al*., 2017; Mansfield and Couve, 2020; Marsh *et al*., 2020; Pynn *et al*., 2019; Smith *et al*., 2018; Talbot, 2013; Vincent and Maxwell, 2016; Visser *et al*., 2015).

- Family routines and schedules (Crawford *et al*., 2017; Nansen *et al*., 2015; Visser, 2020).

- Parental perceptions of neighbourhood safety and the perceived need for surveillance of children (Day, 2023; Eyre *et al*., 2015; Janssen *et al*., 2015; Lee *et al*., 2015; Long, 2017; Riazi *et al*., 2019).

- The intersections of poverty, structural marginalisation, exclusion, racism, ableism, sexism, classism, heterosexism and childism (Aggio *et al.*, 2017; Akerman *et al.*, 2017; Allport *et al.*, 2019; Barclay and Tawil, 2021; Beetham *et al.*, 2019; Bornat and Shaw, 2019; Boxberger and Reimers, 2019; Brockman *et al.*, 2009; Dallimore, 2019, 2023; Dodd *et al.*, 2021a; Dumas and Nelson, 2016; Elliott and Read, 2019; Gerlach *et al.*, 2019; Giralt, 2011; Goff *et al.*, 2014; Helleman, 2021; Horton, 2017; Horton and Kraftl, 2018b; Kimbro and Schachter, 2011; Lee *et al.*, 2015; Loebach *et al.*, 2021; Mansfield and Couve, 2020; Memari *et al.*, 2015; Mullan, 2019; Pacilli *et al.*, 2013; Parent *et al.*, 2021; Pinckney *et al.*, 2019; Stafford *et al.*, 2020; Villanueva *et al.*, 2014; von Benzon, 2017; Wallace, 2018; Wang and Ramsden, 2018; Watchman and Spencer-Cavaliere, 2017; Zougheibe *et al.*, 2021).

- People's sense of community and levels of social trust (Lee *et al.*, 2015; Long, 2017).

- Levels of crime and violence, historic and/or more recent traumatic events (Malone and Rudner, 2016), as well as urban myths and rumours (Horton and Kraftl, 2018a, 2018b).

- Media coverage of crime, violence and tragic events involving children (Bhosale *et al.*, 2017; Lee *et al.*, 2015).

- Parental working patterns, presence at home, and the time they have available to support children's activities (Lee *et al.*, 2015; Smith *et al.*, 2018).

- Levels of homework set by schools (Mullan, 2019; Smith *et al.*, 2018).

- The 'free time' available to children (with the after-school period being highlighted as particular important for children's play); the time children spend in organised, out of school activities (Bhosale *et al.*, 2017; Holloway and Pimlott-Wilson, 2014; Loebach *et al.*, 2021; Malone and Rudner, 2016; Smith *et al.*, 2018).

- The extent to which a culture of playing out exists in neighbourhoods (Malone and Rudner, 2016) together with associated tolerance and acceptance of such behaviours amongst adult residents (Long, 2017).

Environmental and structural factors

- Demographics of the neighbourhood particularly socio-economic status and percentage of the population that are children, including availability of neighbourhood friends to play with (Jago *et al.*, 2009; Lee *et al.*, 2015; Loebach *et al.*, 2021; Veitch, 2007; Zougheibe *et al.*, 2021).

- Settlement size and type, level of urbanisation and associated urban form (Malone and Rudner, 2016) including the topographic and geographic layouts of neighbourhoods (Bornat, 2016; Bornat and Shaw, 2019; Loebach *et al.*, 2021; Long, 2017).

- Volume and speed of traffic, associated road safety issues and levels of on street parking (Bhosale *et al.*, 2017; Basset *et al.*, 2015; Frohlich and Collins, 2023; McQuade *et al.*, 2019; Veitch *et al.*, 2017; Wales *et al.*, 2021).

- Street connectivity and the availability of traffic free walking and cycling routes (Bornat, 2016; Bornat and Shaw, 2019; Malone and Rudner, 2016; Oliver *et al.*, 2015; Villanueva *et al.*, 2014; Wales *et al.*, 2021).

- Proximity, number, diversity, accessibility, connectedness and greenness of playable spaces (Bhosale, 2017; Broberg *et al.*, 2013; Lee *et al.*, 2015; Othman and Said, 2012; Smith *et al.*, 2018; Villanueva *et al.*, 2014; Wales *et al.*, 2021).

- Design, functionality, and maintenance of public spaces, including the range of affordances and sense of security offered to different ages of children (Eyre *et al.*, 2015; Lee *et al.*, 2015; Veitch, 2007).

- Ease of access (Jago *et al.*, 2009; Lee *et al.*, 2015; Veitch, 2007).

- School location, siting decisions and distances between home and school (Basset *et al.*, 2015; Fyhri *et al.*, 2011; Malone and Rudner, 2016; Oliver *et al.*, 2015).

- Weather, time of year and daylight hours (Brockman, 2011; Ergler *et al.*, 2013; Eyre *et al.*, 2015; Smith *et al.*, 2018).

- Privatisation of public space and the commercialisation of play provision (Frago and Graziano, 2021; Hart, 2014; Lee *et al.*, 2015; Layard, 2019; Monbiot *et al.*, 2019; Shearer and Walters, 2015).).

- Consumer culture, corporate interests, and associated commercialisation of childhood (Colvert, 2021; Grant, 2022; Holloway and Pimlott-Wilson, 2014; Marsh, 2011, 2012, 2014; Verdoodt, 2021).

- Government ideology, associated policy, levels of public investment, and regulation of corporate interests (Association for Public Service Excellence, 2021; Burman, 2019; Kallio *et al.*, 2020; Katz, 2019; Lester, 2020; Pyyry and Tani, 2019; Smith, 2021; Wood *et al.*, 2019).

4.3 Playing in the public realm

'Children's experiences of public space transcend categories of walkability, access and physical wellbeing. Children have been found to form strong attachments to the neighbourhoods in which they live and there is a wealth of literature on children's attachment to public space. Children practice specific strategies of spatial organisation and spatial literacy everyday as they make their way as "skilled urban carers" in these "third spaces" between home and school, and around their wider neighbourhood' (Porter *et al.*, 2021, p. 340, in-text references removed).

Having considered the literature on the decline in children's freedom of movement and in playing out, together with the factors that affect children's capability to play out, this section looks further at the interrelated socio-political and spatial conditions that support and/or constrain children's capability to play out in the public realm, including on the street and in designated spaces for play. As was outlined in section 4.1.5 above, public spaces where children did and could still play outdoors have increasingly been appropriated by adults, both in terms of primacy of use (for example motor traffic and parked cars) and in terms of increased privatisation of land (Lee *et al.*, 2015; Monbiot *et al.*, 2019; Russell *et al.*, 2020; Wood *et al.*, 2019). In respect of the built environment, economic interests are the main drivers in design policy and practice, serving to marginalise children's participation in the public realm (Gill *et al.*, 2019; Russell, 2020; Russell *et al.*, 2020). This is what makes children's capability to play out a question of spatial justice.

4.3.1 The built environment and urbanisation

The term 'built environment' can be defined in varied ways but is generally understood to refer to the human-made environmental modifications that support human living, including buildings, green spaces and infrastructure such as roads, water supplies and energy networks. In some cases, the concept is used more widely than physical elements, as 'a material, spatial, and cultural product of human labor that combines physical elements and energy in forms for living, working, and playing' (Kaklauskas and Gudauskas, 2016, p. 418).

Much of the research looking at the influence of and approaches to the development of the built environment is focused on cities (Russell *et al*., 2020). According to the United Nations (2019), 55% of the world's population was living in cities and other urban areas in 2018. This compares with 30% in 1950 and a projected 68% by 2050. These global trends in urbanisation mean that the majority of these urban residents will be children under the age of 18 (United Nations, 2014) with Mansfield and Couve (2020) projecting that by 2030, 60% of urban citizens will be under 18 years of age. Although definitions of 'urban' vary and do not always indicate levels of population density (Blankespoor *et al*., 2017; Dijkstra *et al*., 2021), the United Nations definition is broader than cities. When considering children's experiences of the built environment, this can also include towns and villages (Russell *et al*., 2020; Holt, *et al*., 2016; Lee *et al*., 2015).

In the UK, the majority of the population lives in cities and towns and have done so for many decades, with current (2021) figures at 84%. However, the picture is rather different in Wales, which is much less densely populated than England (Office for National Statistics, 2022d). Much of the literature on the built environment, particularly that on child-friendly environments, focuses on bigger cities. As a comparison, the latest data from the 2021 UK Census show that in terms of population density, London has 5,598 residents per square kilometre and Wales has 150, with Cardiff, the most densely populated area of Wales, having 2,572 residents per square kilometre and Powys, the least densely populated, having 26 (Office for National Statistics, 2022d). Latest available data at the time of writing shows that about a third of the population of Wales is considered as living in rural areas, that is, settlements with a population fewer than 10,000, with those living in urban settlements accounting for 67.2% of the population, a figure also predicted to rise (Society Now, 2014).

Urban and rural childhoods

Studies comparing urban and rural childhoods vary in their findings, highlighting the importance of taking the range of interrelated influences into account. Some studies find that there are higher levels of outdoor play amongst children living in rural environments than those in urban environments (Delisle Nyström *et al*., 2019; Loebach *et al*., 2021; Matz *et al*., 2015), and that villages, rather than cities, are better places to raise children (Lee *et al*., 2015). Alparone and Pacilli (2012) found that the larger the urban area, the less likely mothers were to grant their children freedom of movement due to concerns about their children's safety. Although Dodd *et al*. (2021a) found that there was no significant difference between areas classified as rural and urban, children living in towns and on the fringes of larger urban areas were allowed to play out from a younger age relative to children living in more urban environments. Nevertheless, the variations influencing children's age of independent mobility license are likely to be reliant on a range of variables influencing choices at a very local level (Dodd *et al*., 2021a).

However, factors that might more traditionally be considered urban problems also prevail to varying degrees in rural areas, challenging romanticised notions of rural childhoods and demonstrating that similar issues continue to influence children's freedoms in less densely populated areas (Barclay and Tawil, 2023; Holt *et al*., 2016; Lee *et al*., 2015). Rural life is often constructed as better and safer compared with more urban childhoods. However, idealised visions of a diverse and highly natural physical environment, with free ranging children supported by close knit and harmonious communities have been countered with examples of dullness, boredom, deprivation and intrusive adult controls, the last being more of an issue for girls than boys. The rural idyll myth can exclude issues of poverty, unemployment, lack of public transport and service provision (Powell *et al*., 2013). Children in rural communities are often more heavily reliant on parents to provide transport, and access to countryside spaces is restricted by landowners. It can also be difficult for newcomers moving into rural communities with long held traditions (Powell *et al*., 2013).

Furthermore, Lee *et al*. (2015) report that studies carried out in rural settings found similar concerns around traffic and stranger danger as did those from more densely populated urban environments, showing that similar constraints on children's unsupervised outdoor play persisted in both rural and urban settlements. In reality, rural communities are not free of the concerns associated with the urbanisation and commercialisation of childhood (Powell *et al*., 2013); the distinction of rural and urban settings being 'troubled by the flows of people, information and influences between urban and rural areas' (Powell *et al*., 2013, p. 120).

Playing and being well in the built environment

The built environment is not only implicated in the reduced play and outdoor activity of children but also in its negative impact on health and wellbeing. There is now a wealth of data at a population level that links urbanisation with a range of poor health and wellbeing outcomes including diabetes and obesity (Bhurosy and Jeewon, 2014; Cobb *et al.*, 2015; Dendup *et al.*, 2019), respiratory diseases (Nieuwenhuijsen, 2018; Song *et al.*, 2014), reduced life expectancy (Blankespoor *et al.*, 2017), increased sedentary behaviours (Sallis *et al.*, 2018) and higher rates of mental ill health (Lederbogen *et al.*, 2011; Newbury *et al.*, 2016). From a health and wellbeing perspective a well-designed liveable neighbourhood might be understood as one with infrastructure accessible by public transport and active travel, with an appropriate range of facilities and services and access to affordable housing (Villanueva *et al.*, 2016).

The design of the built environment and its associated spatial practices both affect and are affected by children's capability to play out in their neighbourhoods. Irrespective of geographic, economic or cultural background 'children say they value green spaces, places to meet their friends, safety, and ease of movement. They dislike litter, heavy traffic, and a lack of choice of places to go' (Gill, 2020, p. 30; see also Dallimore, 2019, 2023; Derr, 2015; Children's Commissioner for England, 2021). A poorly designed neighbourhood would have fewer connected street networks and reduced access to facilities and services, resulting in it being more convenient for residents to choose driving as their primary mode of transport (Villanueva *et al.*, 2016). Whilst most children express a desire to have opportunities to play outdoors with friends in interesting, attractive and convenient public places, there are many children who feel that they do not have sufficient opportunities for playing in the public realm due to a range of social and environmental constraints (Brockman *et al.*, 2011; Dallimore, 2019, 2023; Veitch *et al.*, 2007). Neighbourhood environments have historically been a common setting for children's outdoor play (Loebach *et al.*, 2021). However, children's capability to make use of the outdoors for playing is affected by myriad interlinked factors that include physical design, spatial practices and sociocultural issues that are explored in this section. Despite this, consideration of the requirements of children in respect of town planning traditionally focuses on schools, sports and, in respect of younger children particularly, equipped play spaces (Kraftl and Hadfield Hill, 2018; RTPI, 2021).

There is evidence that well designed, moderate-density urban environments can support children's freedom of movement and ability to access meaningful places and offer a diversity of affordances that influences satisfaction with where they live (Bornat, 2016, 2018; Broberg *et al.*, 2013; Johansson *et al.*, 2011). Where these affordances are in close proximity to children's homes, it is more likely that children will be able to access them, whereas what might be considered as destination affordances, often found at the centre or edges of urban developments, are likely to require the accompaniment of an adult (Broberg *et al.*, 2013; Lynch *et al.*, 2020; Pitsikali and Parnell, 2019).

Bornat (2016) reports on the findings from a mapping analysis and extensive observations of ten recently completed housing developments in the UK. The time residents spent outside was found to vary greatly depending on spatial layout and the extent to which this provided for social activities rather than simply transiting through space (though spaces good for sociality were also found to be supportive of more active forms of travel). Children were the dominant users of external spaces, spending more time outside than adults and staying outside for longer, primarily due to their greater motivation for playing with others. They also found that children played out for longer when there were more children to play with and that whatever the activity, 'the greater proportion of people were in groups of three or more' (Bornat, 2016, p. 114). Bornat (2016) concludes that children are 'generators of community life', since housing developments that enabled children to play outside unsupervised showed better use of external spaces by other age groups. Equally, where adults spent more time outside so did children. Furthermore, many of the factors constraining young people's access to and use of the public realm constrained elderly people in similar ways. Car-free shared open spaces that were directly accessible from dwellings were found to be the most well used, whereas open spaces separated from properties by roads were used far less by residents. Shared surface streets were also found to often exhibit high levels of anti-social parking, emphasising the value of clearly defined pavements and public open spaces (Bornat, 2016), a point echoed by

Kraftl and Hadfield Hill (2018) who argue that shared surfaces are in principle a good idea but most likely to work to those shared interests when their implementation is accompanied by good educational programmes and effective signage.

A similar mapping analysis of four neighbourhoods in Wrexham, commissioned as part of the local authority's response to the Play Sufficiency Duty, drew similar conclusions. Each of the four communities was ranked in respect of the number and range of car-free and shared external spaces, the number of dwellings with direct and indirect (traffic free) access to these external spaces, the extent of traffic free networks between these spaces and throughout neighbourhoods, and the potential for incidental interactions between residents due to properties facing each other. Children were found to have higher satisfaction levels with their opportunities for play in the two communities that scored highest across all four aspects of analysis. The report emphasised the importance of opportunities to play close to home rather than just individual, segregated and single use play areas. Playing close to home is more likely when all dwellings have direct access to shared, car-free and overlooked public space (Bornat, 2018).

In a further study of children's satisfaction with their opportunities to play in the London borough of Hackney, Bornat and Shaw (2019) found that whilst most children reported being able to play out without adult supervision, they also reported encountering attitudes of intolerance towards their play by other adults. The authors suggest that proximity of space to home matters most, but that where this is combined with informal oversight, space is more likely to be used for play and less likely for nefarious activities. The most commonly used sites for playing were places with direct access from homes, lower than average car ownership and an absence of through routes even when these places were identified as not having the best equipment.

Returning to the lens of a relational capability approach, these three examples illustrate clearly the intersecting physical and socio-political spatial forces that affect children's capability to play out. Design can affect spatial practices and yet on its own is not sufficient for children to be able to convert such resources into the functioning of play. A clear appreciation of such factors and forces is essential for advocating for change at community planning and policy levels (Loebach *et al*., 2021). Recognising, therefore, that separating out physical and socio-political forces risks a reductionist perspective that can encourage over-simplistic linear and causal responses, we try to address this in a relational manner in the section below.

4.3.2 Socio-political spatial conditions influencing children's capability to play out

Children's capability to use the resources and affordances offered by the built environment is affected by much more than simple issues of the physical design of space. A stark illustration of the impact of socio-political processes on children's experiences of play spaces is given in Horton and Kraftl's (2018a, 2018b) account of three playgrounds that are physically similar, geographically two miles apart but 'narratively and affectively worlds-apart' (Horton and Kraftl, 2018b, p. 232):

'Children's narratives ranged from humorous and affirmative accounts of relaxation, fun, friendship and wildfowl, to haunting urban myths that make manifest community anxieties about "strangers", sexual violence and intravenous drug use, to troubling, stinging critiques of how playgrounds evinced longstanding concerns about social-political marginalisation' (Horton and Kraftl, 2018b, p. 214).[143]

For children living in poorer inner-city areas, their capability to play out can be affected by the risks of living in areas with high levels of drug and alcohol use, homelessness and the sex trade (Gerlach *et al*., 2019; Witten and Carroll, 2016; Witten *et al*., 2015, 2019).

In a study using geographic information technology in Denver, USA, Rigolon and Flohr (2014) found that children from lower class or ethnic minority neighbourhoods had less access to natural spaces in public parks and playgrounds than their white middle income counterparts, with differences even more marked for parks with play areas and high levels of intimacy.

In terms of children's freedom of movement, a study across three neighbourhood types and sociodemographic stratifications by Carroll *et al*. (2015) found striking differences amongst children from middle income families and children from lower income families even though they were both from suburban neighbourhoods. Poorer children were twice as likely to travel to school and four times as likely to travel to local shops independently, in comparison with their middle-income counterparts, and participated in informal activity (such as playing) twice as often. Rates and frequency for inner city children fell somewhere in between, although inner city children were more likely to participate in formal physical activity. Nevertheless, the authors also note that there were striking differences within these groups. These observations echo findings previously detailed whereby there are often more differences between children in the same sorts of neighbourhoods as there are between children in different neighbourhoods. It is the combination of quantitative measures of general trends partnered with the intersectional, detailed nuances from qualitative hyperlocal neighbourhood research that can help to account for how these differences are experienced by children and how that understanding can influence child friendly planning and development (Loebach *et al*., 2021; Carroll *et al*., 2015).

In terms of socioeconomic differences in children's capability to play out, Malone and Rudner's (2016) overview suggests a complex interplay of privilege and intersectional forces. Richer families could live in safer neighbourhoods and equally could invest time and resources in accompanying or driving children to activities, whereas although poorer neighbourhoods may be more dangerous, children at times had to move around unaccompanied or play out because circumstances could not support other options. These studies show the interrelationships of politics of physical design of the built environment (in terms of where such resources are sited) and other issues, such as parental permission, family routines, families' perspectives on neighbourhood safety, habits of time and space use and more. Lee *et al*. (2015) report the proximity of play areas/spaces for play (whether designated or informal) to the family home directly influences accessibility and the likelihood of children playing out. However, such resources are unlikely to be used by children who have little experience of playing out and who are less familiar with what their local environments have to offer and therefore less motivated to go and explore their localities (Loebach *et al*., 2021; Hartshorne, 2014) or able to overcome fears they have related to playing out (Loebach *et al*., 2021). There is also evidence to suggest that children who were identified as

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[143] This research is considered further in section 4.3.4.

non-users of public open space struggled to generate ideas for improving the public realm or were more likely to ask for unrealistic things compared to regular users of public space. These 'non-users' also expressed concerns about feeling confined, stuck in their homes and wanted to spend more time outside (Veitch *et al.*, 2007).

The Monitor of Engagement with the Natural Environment (MENE), covering England, has regularly monitored children's (under 16) time spent outdoors in natural surroundings since 2013 and has found a decline since that time, particularly for time spent outdoors without an adult, and this decline increases the further down the socio-economic scale (staying steady for those in the top two socio-economic groups). Children from Black, Asian and other minority ethnic groups are less likely to spend time in the natural environments than their white counterparts (Natural England, 2019). The survey has detailed descriptions of what constitutes 'time spent in a natural environment', which can range from a few minutes in local green space to days out to the countryside or coast.

The proximity of parks to children's homes is related to increased independence and free play (Porter *et al.*, 2021). In addition, children enjoy spending time in green spaces, whether as formal parks or as patches of unprogrammed green spaces (Broberg *et al.*, 2013), and the variety of loose parts and richness of affordances supports fantasy, imagination and a variety of play forms (Änggård, 2016; Waters and Maynards, 2010), and can exert 'an outward pull' on children to explore their neighbourhood (Wales *et al.*, 2021, p. 192).

An example of how the built environment constrains children's capability to play out comes from a study of children reliant on mobility aids by Stafford *et al.* (2020). They use the term 'coerced immobility', an expression of ableism, to describe social structural practices that serve to immobilise children reliant on mobility aids. These include the constraining effects of traffic and parked vehicles, as well as seemingly mundane urban features, which are intensified for such children. For example, where a lack of pavements leads to road use, children using mobility aids may find it more difficult to avoid moving vehicles, making them more likely to experience near misses. Grass verges, easily navigable to many, can also be significant challenges for those using wheelchairs, with travelling over long grass and undulating ground being hard work, limiting the roaming distance of children, or draining the batteries of powered wheelchairs leaving those unable to self-propel stranded (Stafford *et al.*, 2020).

Social and community networks

Section 4.2.6 considered the influence of social networks on parents' and caregivers' perceptions of neighbourhood safety and therefore children's freedom of movement. Such forces contribute to how spaces are socially produced in ways that support and/or constrain children's capability to play out (Russell *et al.*, 2019, 2020). For example, a sense of informal supervision and the presence of neighbourhood networks (even fairly weak) among residents, places and institutions increase the likelihood that children engage in outdoor play (Furneaux and Manaugh, 2019; Holt *et al.*, 2015; Hooper *et al.*, 2015; Malone and Rudner, 2016; Visser, 2020). Furthermore, the presence of children playing out contributes to their own and their families' social capital and community engagement (Heft and Kyttä, 2006; Malone, 2013; Pacilli *et al.*, 2013; Schoeppe *et al.*, 2016). In this way, children's play actively contributes to the social production of neighbourhood spaces (Bullough *et al.*, 2018; Lester and Russell, 2013). Equally, the lack of a sense of informal supervision increases adults' fears of strangers and of crime, meaning children are more likely to attend supervised out of school activities. This leads to fewer neighbourhood children playing outside, resulting in the reduction of another safety feature of neighbourhood play, namely safety in numbers (Holt *et al.*, 2015).

Social networks can be considered as maps of the ties between people, places and institutions along which information, resources and access to resources flow, and as such are representative of social capital (Sime and Fox, 2014; Spicer, 2008; Wells, 2011b). Social connections can be both informal and formal, weak and strong (Sime and Fox, 2014; Urry, 2007). Social network analysis has been used in research with migrant families, both in terms of the value and disadvantages of 'bonding' connections with those in similar situations and of the same ethnicity and the difficulties and value of 'bridging' connections with others beyond those seen as similar (Sime and Fox,

2014). Children can be important contributors to both forms of social connections particularly through their school attendance (Sime and Fox, 2014). Multiple weak institutional ties across social networks are important for migrant children in accessing a variety of relationships, resources and information (Wells, 2011b). This is especially important for children housed in predominantly white areas with no experience of refugees and asylum seekers where there are few support services. In these situations, racial harassment, violence and bullying meant that families rarely left the house or if they did so it was in the safety of numbers (Spicer, 2008). In neighbourhoods that exclude and isolate, children retreat to the home and are further isolated from opportunities to develop social/network capital (Spicer, 2008; Wells, 2011b). Strong social connections and networks and subsequent acquisition of social capital are gained in places where the assets of that place support playing out, that is, where people are seen out and about in public spaces, and where there is the possibility for incidental interactions that in turn help to form relationships with people and place, building social networks.

More broadly, children's informal everyday interactions through travel, play, leisure and recreation can be seen as participation in public life (Derr *et al*., 2017; Malone, 2013; Wales *et al*., 2021). In particular, their chosen 'third places', places for socialising and playing, are sites for building social networks (Carroll *et al*., 2015; Freeman, 2020; Pacilli *et al*., 2013). In their detailed study of adult women reflecting on their own experiences of playing out when children, Hooper *et al*. (2015) suggest that adult dispositions towards community engagement and neighbourliness are shaped by and grounded in these childhood-neighbourhood play experiences. The experiences children have in this 'third place' of childhood influences how they orientate themselves towards community as adults. Where these experiences are largely positive, neighbourhood cohesion is understood as being of benefit to people's wellbeing as both children and adults. Conversely, for adults who do not have this positive construct of community and the associated assets for wellbeing, neighbourhood networks can be more difficult to access and to develop (Hooper *et al*., 2015). Similarly, Weller and Bruegel (2009) found that where parents have low social capital and constrain their children's independent freedoms for neighbourhood engagement, their children are more likely to experience a reproduction of their parents' low social capital. Parental social capital, therefore, is related to children's capability for freedom of movement and playing out in their neighbourhoods; where this is present children themselves generate their own social capital and contribute significantly to that of their families (Weller and Bruegel, 2009).

Children have repeatedly been identified as catalysts for wider community engagement, the formation and maintenance of friendships and interdependent social activities (Bornat, 2016; Heft and Kyttä, 2006; Malone, 2013), and building family social capital (Wood *et al*., 2013). One qualitative and quantitative study with parents from three western Australian suburbs found overwhelmingly positive associations between respondents with a dependent child living at home and their social capital, neighbourhood cohesion and community participation (Wood *et al*, 2013). The formation and maintenance of childhood friendships and associated social activities brings adults together (Pacilli *et al*., 2013; Ross, 2007). Children's interactions with people other than peers are central to their notions of community (Lee and Abbott, 2009) and through their use of outdoor spaces they become visible and can nurture their sense of security and belonging (Ross, 2007; Wales *et al*., 2021). In this respect, children's interactions with others in neighbourhood public space can come to act as the '"social glue" which holds together diverse, multicultural city neighbourhoods' (Nairn and Kraftl, 2016, p. 13, citing Karsten, 2005).

However, interventions aiming to increase development of social capital, neighbourhood engagement and cohesion are often incongruent with policies and practices operating at different scales. For example, it may be aspirational to achieve neighbourhood cohesion and engagement yet parental choice in school placement often situates children from one neighbourhood across geographically dispersed school locations resulting it difficulties in children getting to know peers from their neighbourhood. Equally, policies that criminalise or see children as out of place in the public realm do little to facilitate social capital, neighbourhood cohesion and engagement (Weller and Bruegel, 2009). Action to support community and social networks and thereby children's capability to play out are more likely to succeed if they are supported by environmental modifications such as traffic calming and safe routes (Schoeppe *et al*., 2016).

How 'permission' plays out

Parental permission is an overriding factor in children's capability to play out (Carroll *et al.*, 2015; Dodd *et al.*, 2021a; Jelleyman *et al.*, 2019; Lee *et al.*, 2015; Mansfield and Couve, 2020). The freedom parents grant their children and the rules and regulations they negotiate and/or impose on children are often a response to social and environmental fears (Brockman *et al.*, 2011; Jago *et al.*, 2009) mediated by the context in which they live.[144] Strategies include setting spatial and temporal limits on their children's activities (for example, making sure they stay close to home or come home at an agreed time), only allowing children to go out with friends or when accompanied by known adults, driving them to places where they can play, or insisting that they carry a mobile phone (Alparone and Pacilli, 2012; Jago *et al.*, 2009; Lee *et al.*, 2015). Children largely accept their parents' safety concerns and incorporate them into their own discussions about their neighbourhood (Carroll *et al.*, 2015; Horton *et al.*, 2014).

Permission, however, is not a one-way power dynamic: children and parents negotiate place-based, context-specific socio-spatial freedoms to play out, both alone and with friends. Typical influencing factors include children's and parents' perception of maturity and competence, knowing and being with other people, concerns about traffic and other people, fitting in with family schedules and routines and approaches to negotiating (Crawford *et al.*, 2017; Nansen *et al.*, 2015; Visser, 2020). In their research with eight- to twelve-year-olds and separately with parents, Crawford *et al.* (2017) found some difference in concerns for safety, with parents being worried about harm from strangers and traffic and children additionally being concerned about bullying from other children, being hurt by animals or getting lost. Despite this, the children value enthusiastically the 'pleasure and enjoyment in the freedom to play and travel in the local neighborhood' (Crawford *et al.*, 2017, p. 133), including taking risks in their play. Witten *et al.* (2015, 2019) also note children's experiences of encounters with others in a hyperdiverse city, such as sex workers, drinkers and drug users, which they found troubling and also which they found ways of navigating (see also Gerlach *et al.*, 2019).

Viewing children's independent mobility as relationally interdependent, or rather as intradependent, better accounts for negotiations (with parents and with neighbourhoods) that change over time, are mediated through technology, take travel companions and routes into account and fit with family routines and social lives (Nansen *et al.*, 2015). In their research with ten- to twelve-year-olds, Nansen *et al.* (2015) identified three themes to such negotiations. The first was 'compositions', which included companions (friends, mobile phones and strangers who populated spaces and gave a sense of 'ambient companionship' and natural surveillance). The second was 'collaborations', recognising that children's mobility is neither controlled by others nor autonomous but 'assembled through the cooperation and assistance of a range of people, objects and environments' (Nansen *et al.*, 2015, p. 475). Their third theme was 'compromises', made through reciprocal negotiations regarding children's changing competence and maturity, family routines and other schedules and specific events (including the weather). Alongside this, children's negotiating tactics included 'pleading, making a claim for maturity, ability or responsibility, nagging or selecting which parent to approach' (Nansen *et al.*, 2014, p. 477).

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[144] These issues are discussed in section 4.2.6.

Visser (2020) reports three strategies used by children to negotiate their freedom of movement:

- Secretive strategies, in which children are selective about the information they provide as part of negotiations to try to avoid parental constraints, based on their knowledge about their parents' concerns about their neighbourhood or neighbourhood friends. With this strategy, children have to deal with the potential guilt that arises from dishonesty and its consequences. An example from Lester (2020) will be familiar to many: he recounts the story of one child asking a parent for permission to go to the park with their friend without any adults, saying that their friend's mother had said it was okay if the child's parents were also okay with it. They go to the park on their own, but a later meeting with the mother reveals that her child had told her the same story.

- Boldness strategies, in which children challenge parental authority to withhold permissions, running the risk that parents may resist the child's challenge.

- Discourse oriented competency strategies, in which children argue for freedoms either based on their evidenced competencies or that without permission to evidence competency how would they ever show they were competent.

The experience of parents and children navigating issues of permission is affected by intersections of poverty, class, race, gender and disability. For example, researching the neighbourhood practices of similarly aged boys and girls, Porter *et al.* (2021) found several girls expressed more self-doubt about confidence and competence in respect of spatial orientation and navigation than their male counterparts. However, during discussions around the girls' drawn neighbourhood maps, girls displayed detailed knowledge and understanding of the physical and sociocultural make up of their neighbourhoods, suggesting their expressed lack of competence may actually be an internalisation and reproduction of their parents' fears and perceptions, enacted differently by children dependent on their gender (Porter *et al.*, 2021).

Another example comes from a study of young people of Latin American descent living in the north of England (Giralt, 2011). Not only had these children had to navigate the permission to play out from parents, but they also had to negotiate the diverse ways in which they were othered by peers so they could create a sense of sameness and belonging within the spaces of their everyday lives. In this context, Latin Americans are referred to as an invisible ethnic minority, representing a relatively small and dispersed population, less likely than others to live alongside people of a similar ethnic background. Giralt (2011) describes how the children developed hybrid identities by adopting the cultural forms of both where they live now and where their family may have originated from. The young people's accounts of the sameness that they shared with their ethnically diverse friends was focused on their common interest in playing, both at home and going out together. However, these young people also used a range of other in/visibility strategies to negotiate belonging to the multi-ethnic environments in which they lived.

Most of the studies cited in this section have been fairly small-scale, fine-grained studies that can reveal the complex intersectional details of negotiating permission for everyday freedoms as a part of the capability to play out in local third places. Such data need to be read through macro-scale policy issues to explore and account for the ways that micro and macro forces play out in the everyday lives of children (Horton and Kraftl, 2018b). Malone and Rudner (2016, p. 368) summarise the need to

'question how individually and collectively freedom, mobility, and risk are defined and to acknowledge the complexity of social, cultural, and ecological concerns that are operating on and through the lives of children. In particular, the argument has been made that if this data is to be relevant for citywide planning for child-friendly and sustainable development in cities in the next two decades, then these fine-grain differences need to be exposed and acknowledged.'

4.3.3 The street and other appropriated places for playing

This section considers the spaces that are not necessarily designated as play spaces but are most often appropriated by children for play (Barclay and Tawil, 2013; Danenberg *et al.*, 2018; Francis, 2016; Gill, 2021; Tranter, 2015) and can be readily understood as third places (Hooper *et al.*, 2015; Kearns *et al.*, 2016; Oliver *et al.*, 2016; Shortt and Ross, 2021; Witten and Carroll, 2016; Witten *et al.*, 2015; Witten *et al.*, 2019). The term 'the street' has often been used in geography to refer to any space outside of the home, school and other institutions, and spaces created specifically for children (Shearer and Walters, 2015). We have borrowed a structure for arranging the research from Witten and Carroll (2016; also Carroll *et al.*, 2015) of threshold spaces (semi-private spaces near to home, although gardens are discussed in section 4.5.5), transitory zones (the opportunities for playing along the way) and destination spaces (identified spaces where children meet up such as shops, car parks and vacant plots, although designated spaces for play are considered in section 4.3.4). As with all structures, it cannot contain those aspects of the research that span all three domains, and so sometimes broader issues are considered within the domains where the research has addressed them.

Threshold spaces

Children and teenagers are consistently identified as the social group that spend the most time in urban spaces and as a result often have a more granular appreciation of such spaces than do their adult counterparts (Davis *et al.*, 2006; Horton *et al.*, 2014; Nairn and Kraftl, 2016). This nuanced appreciation of what urban spaces afford may in some way account for differences in opinions and perceptions between children and adults about the capability for play in any neighbourhood. The informal third places that children co-opt for playing are often places where the destination is less important than the opportunities for play and sociability it affords.

Threshold third places are commonly reported as favourite places to play, predominantly for children of low and middle income suburban families and for those middle to high income inner-city children (Barclay and Tawil, 2013; Danenberg *et al.*, 2018; Francis, 2016; Gill, 2021; Tranter, 2015; Weir, 2023; Witten *et al.*, 2015). This means that the spaces closest to home are significant places for play, socialisation, and the development of a sense of community belonging. These spaces include the foyers, communal leisure facilities, corridors of those living in medium and high-density housing, or adjacent pathways, streets and verges, car parks and driveways (Bornat and Shaw, 2019; Tranter, 2016; Witten *et al.*, 2019). Such spaces are important for fostering children's social and spatial confidence and sense of independence from parents, despite the fact they are often in close proximity to their home and are not specifically play spaces (Badland *et al.*, 2016). Threshold spaces work best for neighbourhood play and for wider freedom of movement if they have restricted traffic and signals that playing is accepted (Weir, 2023).

However, in addition to the constraints on playing out described above, for many children living in medium density housing in the inner city, the opportunity to play in threshold spaces is contested either by other residents or by managers of those dwellings who often contractually prohibit playing in such spaces because it is a reported nuisance to adult residents (Grant, 2022; Krysiak, 2018; Witten *et al.*, 2015).

'I'm over apartments. You can't play inside, they're too small. And now there's nowhere to play outside. We used to play hide and seek and tag in the corridor but then the manager had calls complaining about the noise. But we were so quiet. Now there are signs on each floor telling us we can't play there. It kind of feels bad because there's no place to go to have fun. Once I tried to play badminton in the car park, but there were just too many cars going in and out. Now I just stay at home and play on the computer and read. My mum doesn't want me to play on the street because it's dangerous, so there's no place to play' (interviewee, Carroll *et al.*, 2015, p. 12).

Transitory zones

Children use streets and pathways, steps and walls as both destination and transitory zones, playing along the way, for example, hopping to avoid pavement cracks, climbing, people watching or hanging out, making them important third place spaces as well as routes to destinations (Carroll *et al.*, 2015). As well as being important spaces for play, transitory third places also provide opportunities for physical activity given that children's play routinely involves movements such as chasing, climbing, scooting and bike riding, jumping, skipping, skating, and exploring (Appelhans and Li, 2016; Beresin, 2012, 2014; Janssen, 2014; Kearns *et al.*, 2016). Children's receptiveness to the affordances present in their environment means that the often small overlooked or mundane details take on significance: 'the camber of the street, kerbs, cracks in the pavement, low walls that ask to be walked on, wildflowers or snails that demand attention. Children's movements are not linear but meandering, pausing, dwelling' (Russell and Stenning, 2021, p. S197).

The mundane, often small, variations in detail from one street to the next can make the difference to a place's playability. For example, in Othman and Said's (2012) study of two *cul-de-sacs*, the one with a gentle incline and more interesting vegetation was found to support more playing out than the *cul-de-sac* without these characteristics. Many children have places in their neighbourhood that have specific meaning. Where children are able to access these places within their neighbourhoods, intimate and meaningful relationships develop amongst children as do their attachments to other community members and to the community as a place. Such attachments are beneficial for children's physical and mental health (Hartshorne, 2014; Lester and Russell, 2010; Long *et al.*, 2014; Wales *et al.*, 2021; Witten *et al.*, 2019).[145]

The importance and the everydayness of transitory zones is brought to life in research with nine- to sixteen-year-olds living in new urban developments in the south-east of England, which provides a richness of detail of children's everyday lives often missing from general accounts of active travel, walkability, and independent mobility (Horton *et al.*, 2014). Although the children were driven or accompanied on most of their journeys, they were given licence to play out within tightly bounded parameters, sometimes as little as 50 metres around the family home. Others with broader boundaries were constrained by such things as busy roads; spaces that parents felt were unsuitable, largely because they themselves were unfamiliar with them; and time boundaries, with children being called home via mobile phone or given times to return home. Despite these tight spatiotemporal boundaries, children in the study spent significant amounts of their free time outside. They spoke of the circuitousness and boundedness of socio-spatial encounters, of both the taken-for-grantedness and the intensity of experience, sociality, and playfulness, as well as of their highly localised pedestrian knowledge and narratives (Horton *et al.*, 2014). The new urban estates had few specific destinations for children. Those that did exist were seldom used, as they were so familiar they no longer held interest or because they were aware of how easy it was for older children to outstay their welcome in them. Given this, the children walked. They walked for sociability, for adventure, to pass the time of day, to invent games and play along the way, bump into other friends or visit shops and viewpoints (Horton *et al.*, 2014).

Such walks, although tiring, were opportunities to generate shared memories and were a key part of the culture and narratives of the children and teenagers. Importantly, these were often recalled as 'just walking' or 'just playing', but it was clear that such practices evidently mattered greatly to them. The authors muse on the possible reasons for such a deprecatory turn of phrase:

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[145] See chapter 3, section 3.11.

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'perhaps a slightly evasive desire to preserve some of the mystique of their friendship activities when talking with adult researchers; perhaps a disinclination to credit walking with any special importance; perhaps a reflex defence of their behaviour, in a context where young people's presence in public space is too often assumed to be menacing; perhaps bemusement, or the challenge of verbalising everyday, take-for-granted activities, friendships and experiences' (Horton *et al.*, 2014, p. 111).

As with other studies where children discuss their everyday relationships with their neighbourhoods (Carroll *et al.*, 2015; Kearns *et al.*, 2016), there is perhaps a notion the children feel that 'just walking' and 'just playing' are not seen as important by adults, emphasising the need for adults to pay attention to what matters to children and to take better account of such practices.

Both transitional zones and destination places are of particular importance for younger children (Furneaux and Manaugh, 2019), but as children grow older, accompanied trips to designated spaces reduces. In their study in a suburban conurbation of Toronto, Canada, Furneaux and Manaugh (2019) found that for nine- to eleven-year-olds, networks of alleyways and streets connecting sets of houses become the most preferred spaces for playing. Other children are often available for play here or the alleyways connect households to other households where friends can be called on to play out. There is a sense of informal supervision as the alleyways are well used by both adults and children as social spaces. Importantly, the alleyway as a space for play provides a transitional zone for this age group, who are too young in their parents' view to have the independent mobility to access destination play spaces but old enough to make use of the alleyway creatively for their play. Furthermore, the alleyway presented an opportunity for parents to build trust in their children's competence as children could demonstrate that they could be responsible and independent in this more spatially contained environment, giving parents the confidence to allow them the independent mobility they demand as they increase in age.

As well as walking and playing in general, streets are the spaces often appropriated by children and teenagers pursuing rarefied forms of play and street sport sub-cultures, creatively appropriating 'urban public spaces in ways that are dissonant with their original intention' (Nairn and Kraftl, 2016, p. 16). This is despite attempts to plan young people out of public space through the organisation of their time and provision of spaces exclusively for them (Pyyry and Tani, 2016). Here, for activities like skateboarding, blading, BMX and parkour, streets are both transitory zones and destination places, with high affordances for specific skill refinement or expression. There is a significant body of research into these forms of urban play (Mould, 2016), and we offer a few examples.

Mould (2016) argues that young people's participation in parkour is a form of soft political activism, a childlike stance toward interaction and enjoyment of what the urban form has to offer. It is 'childlike' not because those who practice it are young, but because it requires a youthful stance towards the built environment as a site for play. Parkour is a co-option of space not intended for play, as such it is a form of urban citizenship in which young people seek out ways to interact with and stake a claim over space predominantly ordered and structured in such a way that excludes them (Mould, 2016; Nairn and Kraftl, 2016). Pyyry and Tani (2019) suggest that young people's 'dwelling with' urban environments is an everyday spatial politics that arises from the joint participation and 'complex minglings' (p. 1219) of the materiality of the city and young people's playful engagement. They give the example of a group of young men being attracted by the trickability of the temporary brightly coloured barricades and other material aspects of some roadworks. The emerging play is spontaneous, sometimes risky, and not in line with the intentions for use of that space. The city is a player, and all the players momentarily, materially and affectively changed by the event, offering up an alternative spatial politics.

Stratford (2016) takes a slightly different perspective on young people's political activism and their engagement in skateboarding. She suggests that skateboarding can be seen as an expression of both social and environmental politics, through its use as a form of travel, through young people's awareness of the environmental politics of skateboarders' production and consumption, and through the ways that skateboarders claim public space. Skateboarding is a choice to be a particular way and to live one's values, beliefs and non-partisan political orientations that is symbolic of young people's orientation to the world around them. These forms of urban play can be associated with not only forms of spatial resistance but important aspects of young people's socialisation and informal activity patterns (Rannikko *et al*., 2016). They are not merely unthinking reactions to a lack of formal space for alternative sports, but practices imbued with their own structures of hierarchy and social morals.

Practitioners of alternative sports recognise their need to use public space and the rights of other people and the material world (Mould, 2016; Rannikko *et al*., 2016; Stratford, 2016). Subcultural rules guide times that are more appropriate for the co-option of particular spaces, or the amounts of time spent in specific areas so as not to over-extend a potential welcome in that space, the understanding that if faced with a reasoned argument to move on that should be met respectfully, that litter should be cleared away or that where an active sports activity would unreasonably compromise architectural fixtures, contacts should be avoided (Rannikko *et al*., 2016). Equally these sub-cultural mores are coupled with internal regulation of sporting hierarchies, where skateboarders take precedence over scooters and bladers, and where there is an assumption that strangers who share the same pursuit interest will be friendly (Rannikko *et al*., 2016; Stratford, 2016).

Destination spaces

Whilst skateboarders and those practising other alternative sports may range across cities, they also meet up in destination spaces. These may be school playgrounds or car parks, but may also be designated spaces such as skateparks. More broadly, destination third places, significant in children's lived experience, include vacant lots, shopping malls, shopfronts, spaces left over after planning, small pockets of land, car parks and more (Kearns *et al*., 2016; Pyyry, 2016) as well as designated spaces such as playgrounds and parks.[146] These third places represent a focus of neighbourhood belonging and sense of identity for those that can access them but particularly for those from lower income neighbourhoods whose access to organised formal physical activity opportunities is much more limited than that of their wealthier counterparts (Carroll *et al*., 2015; Kearns *et al*., 2016; Witten and Carroll, 2016). These are places to climb trees, play informal team sports and a wide variety of traditional games, engage in imaginative play, be in the fresh air but most importantly to be with friends (Carroll *et al*., 2015). They can also be places of refuge from noise and traffic or from the stresses of the day or family life (Arvidsen and Beames, 2019; McKendrick *et al*., 2018; Wilson, 2015).[147] The places where children seek refuge are imbued with sensorial and affective ambience, and can include car parks, empty school playgrounds, lesser-used side roads as well as a tree with a view, a quiet spot in a woodland or forest track. Such spaces may be perceived as risky or even dangerous, but potentially less so than more typical destinations for playing (McKendrick *et al*., 2018), as exemplified in this extract about a space claimed for refuge by Turkish children from Chatterjee (2017, p. 26):

'They liked going to the Byzantine ruins on the edge of Sulukule and climbing the walls that collapsed during the 1999 earthquake. They loved to look at the view from there. Even though that place was considered a crime hotspot, for the teenagers it was a refuge and a place to be connected.'

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[146] Designated spaces for play are considered in section 4.3.4.

[147] The relationship between third places as places of refuge and children's wellbeing is discussed in chapter 3, section 3.11.

These third places are found as a part of children's wayfaring and adopted as spaces for refuge because of the opportunities they present for sociality but also for solitude, contemplation, a break from the hustle and bustle of life, peers and family. Young people report their experiences in these spaces as restorative, and significant to their health and wellbeing (Arvidsen and Beames, 2019; Leyshon, 2016; McKendrick *et al.*, 2018).

Despite the importance of such third place destinations, they are rarely taken into account in existing urban and sub-urban spaces or new master planned estates as a result of the combination of flexible planning regulations and commercially driven interests (Carroll *et al.*, 2015; Karsten, 2014; Mould, 2016; Nairn and Kraftl, 2016; Russell *et al.*, 2020; Shearer and Walters, 2015).

Exclusion from public space is particularly marked for teenagers. Shearer and Walters' (2015) research with 11- to 17-year-olds on a new housing estate in Brisbane, Australia found that teenagers were excluded during the planning process for the master-planned housing estate through lack of provision, and that they were also excluded from other public spaces. They offer two examples of responses to such a lack of consideration. The first was a response to large groups of teenagers gathering on late night Thursdays at the shopping centre. The young people were seen as a problem as they took up space, did not spend money and the security guards said they intimidated families and other paying customers. In a collaboration between a councillor, a youth agency and the shopping centre, the young people were given a space in a food courtyard on Thursday nights, both formalising their presence in the space and freeing up other spaces for paying customers. The second example was an older shopping centre on the edge of the development, also where large numbers of young people gathered and had colonised the space, staking their claim through disruptive behaviour such as littering, leaving bikes and scooters at the entrance, putting milk crates round parked cars and not letting delivery drivers leave the car park. Such disruption and resistance to the dominant production of space may have been inclusive for the young people but was exclusive for others. Nevertheless, it was a symptom of planning focused on profit which neither provided legitimate spaces for the young people or undefined smaller spaces that they could use for spaces of refuge (Shearer and Walters, 2015).

4.3.4 Public parks and playgrounds

The history of children's playgrounds is often told as a story of the enclosure and containment of working class (and in the USA, of Black) children and their play (Murnaghan, 2019; Russell *et al.*, 2021). Late nineteenth and early twentieth century social and moral reformers saw playgrounds as sites that allowed for both the removal of children from the streets, where they were both a risk and at risk, and for the 'proper education of children through the exercising of their bodies, thereby guiding their moral development also' (Russell *et al.*, 2021, p. 184). Today, they are seen on the one hand as important spaces that are enjoyed by children and families and that demonstrate a commitment to children's right to play, and on the other as a means by which to constrain children's play in designated spaces in ways that fail to recognise children as equal rights holders to the wider public realm (Murnaghan, 2019; Pitsikali and Parnell, 2019).

Irrespective of how playgrounds are presented by play advocates, they are (together with parks) a common feature of children's accounts of the places that are important for their play (Porter *et al.*, 2021). According to the British Play Survey, after playing at home (inside or outside), children on average spent more time playing in playgrounds (closely followed by green spaces and then the street) than other places (Dodd *et al.*, 2021a). Proximity of parks was also related to increased independence and free play (Porter *et al.*, 2021).

Helleman's (2021) observational walking study in Rotterdam of children's out of school play found that two thirds of children were playing in designated play spaces, with a big emphasis on playgrounds, but another third in less formal spaces including grassed areas, bushes and streets. Boys were observed in a broader range of places and dominated the sports or grassed fields. Much of the play behaviour observed was physically active, although the third most common categorisation was children 'doing nothing', and this was even more common for girls. The

author suggests that children's tendency towards using designated play areas is not necessarily illustrative of a strong preference for them but perhaps a consequence of what is available to children (Helleman, 2021).

Playground maintenance is an important issue for children (Horton and Kraftl, 2018a, 2018b; Loebach *et al.*, 2021), with children more likely to be allowed to use well maintained playgrounds as well as being more likely to be motivated to play in them (Loebach *et al.*, 2021). However, a recent study in Wales found that many local authorities had to cut their playground budgets, with two reporting budgets of between £20 to £25 per playground per year (Russell *et al.*, 2019).

More broadly, according to the Association for Public Service Excellence (2021), despite increased visitor numbers following the pandemic, public funding for UK public parks has reduced by an estimated £690 million over the past decade, disproportionately affecting some regions more than others. The proportion of parks reported as being in 'good' condition also fell from 60% to 40% between 2013 and 2021, a major contributor being the loss of staff to develop, manage and maintain these spaces, with further losses expected in the future.

Research on accessibility of parks and play areas gives a mixed picture. The Association of Play Industries (API) (2022) reports that the alarming decline in local authority spending on playgrounds it had reported on in 2017 to 2018 had evened out. On a crude equation of number of children and number of playgrounds, the Association of Play Industries found an uneven distribution across the UK, with, for example, one playground for every 392 children in Wales and one playground for every 866 children in London (Association of Play Industries, 2022). However, this does not take into account the distance children might have to travel to reach a playground. A study of parks in Rotherham, England, found that those living in the most and in moderately deprived areas had more access to parks than those in least deprived areas, and that those parks had more amenities. However, the parks in the most and moderately deprived areas also had the most safety concerns and 'incivilities' such as broken glass, vandalism, dog refuse, evidence of alcohol and substance use and sex paraphernalia (Hobbs *et al.*, 2017).

In terms of quality, one study looked at the distribution of parks and playgrounds in London with levels of nitrogen dioxide (NO_2) exceeding the EU limit (Sheridan *et al.*, 2019). High levels of traffic contribute to high NO_2 levels, and exposure can cause adverse health conditions for children including asthma and reduced lung function. The study found that:

> 'The closest play space for more than 250,000 children (14% of children) under 16 years old in Greater London had NO_2 concentrations above the recommended levels. Of these children, 66% (~165,000 children) lived in the most deprived areas of London' (Sheridan *et al.*, 2019, p. 7).

Although macro-level research on quantity, quality and accessibility of parks and playgrounds is useful, such information can obscure children's and families' experiences, and 'the context in which the playground is embedded is tremendously important to its meaning' (Murnaghan, 2019, p. 14). Horton and Kraftl's (2018a, 2018b) analysis of three recently refurbished and materially similar playgrounds in one east London borough highlights the power of different socio-political, topographical, cultural, religious, raced and classed geographies of their locality. The playgrounds are fairly close to each other but serve very different neighbourhoods. Although all neighbourhoods were diverse, Playground A served a predominantly white British (60%), affluent, middle class, professional demographic; Playground B was in one of the 10% most deprived UK communities where 12% of the population was white British and 22% had never worked; Playground C was in one of the 20% most deprived UK communities, with 63% white British and 10% had never worked. Their research with over 1,200 children from the three communities showed very different experiences of each playground.

In Playground A, children talked about the problematic behaviour of teenagers and local graffiti artists and individuals with nefarious intentions as mythologised through stories of the 'Gingerbread man' but did so through a lens of their community as a place of safety and friendship, where the protective factor of knowing people in your neighbourhood mediated those threats. Furthermore, they expressed what the authors see as normalised encultured patterns of positive behaviour where the playground was seen as an asset that children are lucky to have, where the play equipment was fun and provided for sociability and excitement, and where the graffiti artist was seen as a vandal committing anti-social acts. The same issues were refracted through a different lens in Playground B. Here the graffiti artist was a local legend, revered amongst the community. Here also, the safety practices of children appeared more child initiated and controlled rather than normalised and encultured through adult practices and dispositions. Teenagers were to be avoided due to associations with gang culture and the play equipment was seen to offer little more than a place to sit on or hang out. In Playground C the ambivalence seen in Playground B shifts again to despondency and disregard, the equipment was reportedly rubbish, not fun, issues of anti-social behaviour were abundant with reports of hypodermic needles and the brown broken glass indicative of drinking, predominantly associated with teenagers and teenage gang culture, the graffiti artist and the Gingerbread Man were villainous scary individuals characteristic of an omnipresence of an unloved neighbourhood full of dangers to be aware of and to avoid. Comparatively studying children's lived experience of these three playgrounds provides insight into the range of material and socio-political forces that can extend or limit children opportunities for play and that might be obscured by generalised claims for the provision of a fixed equipment playground as a response to meeting children's right to play. Understanding the granularity of these micro geographical and macro geographical socio-political, spatial and historical issues can inform efforts seeking to advocate for children's capability to play.

Such issues affect children's access to playgrounds particularly in structurally marginalised urban areas, where they have been rendered risky through the appropriation of children's playgrounds by rough sleepers, drinkers, drug users and sex workers together with discarded needles, broken glass bottles and other associated paraphernalia (Gerlach *et al*., 2019; Horton and Kraftl, 2018a, 2018b; Witten and Carroll, 2016; Witten *et al*., 2015, 2019). For some parents, however, these people were not strangers but friends and family members (Gerlach *et al*., 2019).

Contextualising use and access

The use of playgrounds as intergenerational spaces is also affected by design and context. This is highlighted in one study by Pérez del Pulgar *et al*. (2020) on two playground developments in Barcelona, Spain. One was an imposed and well-designed playground in a wealthy new development, which was used as an occasional amenity, with adults exercising close supervision in separate family units. The other, developed through the participation of the local and stable working class community, was '"lived" as a community space' (p. 12), with 'a myriad of children playing, families and groups of friends – with and without children – organizing picnics or birthday celebrations, elderly people taking a walk and sunbathing on the benches, and teenagers gathering to sing rap, skate, smoke and/or play cards' (p. 7).[148]

In another example, Pitsikali and Parnell (2019) consider how both adults and children 'play' with the boundaries of enclosed play spaces to disrupt the tacit rules for how children and adults are expected to behave. Playground fences delineate playgrounds as children's spaces, even when ostensibly public, affording 'separation and supervision [as] the two main attributes of "proper" places for children's play' (p. 723). Their observations across three playgrounds showed that whilst the play of very young children was contained by the fence, the fence itself provided play opportunities for older children, for example, as something to be climbed over, balanced on or to have as a backdrop to ball games. Equally, the formality of the children's play equipment appeared as a barrier

[148] See also chapter 3, section 3.11.5.

to parents enjoying playing with their children through feelings of embarrassment or shame. Contrary to the limiting factors of the playground and paradoxical to its intention to contain play was its value in visibly denoting a culture of playing and making permissible playing outside of the fence with either the material infrastructure of the piazza's steps or flower bed walled perimeters or the natural elements present in the immediate surroundings such as trees and streams, grassed areas and so on. In these areas both children and adults alike felt free to play together.

Lynch *et al.* (2020) found the sense of community integration and belonging, sociability and the ability to meet with other adults and friends to play with to be key features of local community parks and playgrounds in their study of five parks and playgrounds in Ireland. As with the Pitsikali and Parnell (2019) study, younger children (five to ten years) found the equipment in the playgrounds fun and engaging, although all children also played with other things including equipment they had brought to the playground. Many older children, however, found the equipment no longer offered sufficient challenge and providers acknowledged that the playgrounds were designed for children under 12 years and that older children preferred more challenging items such as zipwires or multi-use games areas (MUGAs). The focus for the study was on the 'perplexing and somewhat ambiguous' (p. 114) concept of universal design and what it can offer for more inclusive playgrounds. They also note the tension between ease of access (for example, ramps instead of steps) and the importance of challenge. For example, the concept of risk and danger are experienced differently by some neurodiverse children, making supervision stressful. When smaller, parents could help their disabled children to access the equipment, for example lifting them from a wheelchair into a swing, but this was no longer possible as they grew. Body size also becomes an issue for older children with intellectual disabilities who still want to play on the equipment but are too big.[149]

The issue of risk, particularly in public manufactured equipment playgrounds, has become a key discourse over the past 20 years (Ball *et al.*, 2008, 2012; Ball *et al.*, 2019; Spiegal *et al.*, 2014). In a response to the safety narratives that dominated the design and manufacture of playgrounds and playground equipment in the 1980s onward, research on the value of risk in play proposes that play spaces need to incorporate some opportunities for risk-taking through a balanced risk-benefit approach.[150] Despite the wealth of research and evidence and associated policy initiatives in the UK (Ball *et al.*, 2008, 2012), Lynch *et al.* (2020) still found contractors acknowledged there was an engrained understanding amongst caregivers that a playground should contain particular items in a particular open and easy to supervise layout, and that, in respect of low-level risk-taking activities (such as going down a slide headfirst, balancing on a log at some height, jumping from height, climbing trees), parents of typically developing children were more likely to be tolerant of these play scenarios than were parents of disabled children.

There is evidence that disabled children are up to twice as likely to sustain injuries from playing than are typically developing children (Beetham *et al.*, 2019; Sherrard *et al.*, 2001; Shi *et al.*, 2015). This has been used to suggest that disabled children therefore need more opportunities to experience risk-taking so that they can develop skills to avoid injury (Beetham *et al.*, 2019; Pyer and Tucker, 2017; Spencer *et al.*, 2016).

Another aspect of access to public parks and playgrounds for disabled children relates to the stress of being different. In the research by Lynch *et al.* (2020), parents and children spoke of feeling odd and stressed in playgrounds that were not designed for their use. Other studies have shown that particularly learning-disabled children are afraid of violence and discrimination from other children and so avoid spaces such as public parks and playgrounds (von Benzon, 2017).

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[149] The concept of universal design and its application is discussed further in chapter 5, section 5.8.1.

[150] The multi-layered value of risk-taking and its relationship with children's wellbeing is discussed in chapter 3, section 3.7.6.

Parks and playgrounds remain important places for teenagers where they can meet up and socialise with friends (Owens, 2018; Vanderstede, 2011) or as a space of refuge (Clark and Uzzell, 2006). However, playgrounds are predominantly targeted at younger children, with older children feeling out of place when using them (Kraftl, 2020b). Indeed, teenagers are reported to be broadly dissatisfied with what is on offer, finding fixed equipment playgrounds boring, and adults and children alike reported a need for playgrounds to cater for a wider age range (Australian Capital Territory, 2019; Barclay and Tawil, 2018; Dallimore, 2019, 2023; Lee *et al*., 2015; Russell *et al*., 2019). There exists a disconnect between what is available and what many teenagers want (James *et al*., 2018). Furthermore, teenagers often report feeling unwelcome in public play spaces (Owens, 2018; RTPI, 2021), where adults may perceive them to be misusing equipment rather than playing (Owens, 2018). In studies with younger children and parents, teenagers are also often demonised as an existential threat (Brockman *et al*., 2011; Kraftl, 2020b; Long, 2017; Owen, 2018). In Owen's (2018) study, the teenagers felt that they were prevented from playing in the same ways as other children and were only seen to be legitimate park users when engaged in more organised sports. In some cases, teenagers are actively designed out and prevented from congregating in public spaces (RTPI, 2021) and many playgrounds in the UK state they are for under 12s only.

What is made available for teenagers, in terms of play provision in the public realm, tends to be focused on physical activities such as skateboarding or ball-based games like football and basketball (Owen, 2018). These are strong subcultures amongst children of this age, and such physical pursuits are often interspersed with other playful behaviours (chatting, texting, rough and tumble) and take place alongside other activities such as playing music (Vanderstede, 2011). However, such facilities may only serve a proportion of teenagers (Owen, 2018) and the lack of variety in provision diminishes opportunities available to those who would prefer to play in other ways, particularly girls and less sporty boys, thereby reducing their motivation to play out (James *et al*., 2018).

Many studies of children's play call for more and better provision for teenagers, recognising that as children get older their interests change to being more about socialising, as well as seeking out further opportunities for risk and challenge (UN Committee on the Rights of the Child, 2013). Involving teenagers in the design process may help to ensure parks and playgrounds provide for their interests and desires (Brockman *et al*, 2011), and catering better for older children would in turn open up other spaces for younger children to play too (Brockman *et al*., 2011; Long, 2017).

In one study exploring teenagers' recommendations for improving physical activity in their age group, both girls and boys wanted an increase in opportunities to engage in unstructured activities. The variety and proximity of provision was key, as was the maintenance and upkeep of such spaces. Providing opportunities that teenage girls enjoy was seen as having particular importance, with an emphasis on fun and enjoyment over physical activity (James *et al*., 2018). Other studies suggest key design criteria might include stages and platforms for performance, structures that support diverse physical movements (for example climbing and parkour), multiple seating options, varied topography, and play equipment at a scale suited to larger children (Edwards, 2015).

4.3.5 Towards sufficient opportunities to play out

Loebach and Gilliland's (2016a) deep pattern analysis of children's habitual neighbourhood behaviours found that whilst children's play patterns changed from day to day, almost half of children were categorised as having a predominantly indoor experience, with another third habitually spending time outdoors, but only 10% spending as much of their daily leisure time outdoors as indoors. The children studied were mostly girls and were living in two areas of low socio-economic status in London, Canada. There were some children who, despite having freedom to play out, still chose to stay in, with the attraction of digital technology appealing more to them than the outside environment. However, those 'with a strong outdoor component to their habitual activity pattern' (Loebach and Gilliland, 2016a, p. 580) were found to have lower levels of screen time, largely unstructured out of school schedules and higher levels of freedom of movement and parental permission to access more local destinations without adult accompaniment. These children also perceived there to be a greater amount and range of affordances for play in their local neighbourhood (Loebach and Gilliland, 2016a), evidencing that children who play out can find places to play and feel more positive about their capability to play out.

Whilst these children's neighbourhoods were defined by 'distinct morphological boundaries' (Loebach and Gilliland, 2016a, p. 584) such as roads, they were also relatively large geographical areas over which the children could roam and incorporated a diverse range of affordances for play in close proximity to children's homes, meaning that children did not have to negotiate the challenges associated with major roads to access these opportunities. These neighbourhoods also featured low or traffic free routes to local destinations, and the children had friends living close by, which increased the attractiveness of playing out, as well as improving parental perceptions of safety (Loebach and Gilliland, 2016a).

In contrast, the micro neighbourhoods of children who predominantly spent their leisure time indoors were described as 'residential islands' (Loebach and Gilliland, 2016a, p. 581), smaller geographic areas surrounded more closely by significant boundaries, like major roads. These children either had very little free time or perceived and used few affordances in their local neighbourhoods that could counter the appeal of digital media. They also tended to have less freedom of movement and accessed fewer places without adult accompaniment.

Similar supporting and entangled assets were identified in a study by Wales *et al*. (2021) of a group of children aged 10 and 11, who all went to the same school, in a suburban community in southern Sweden, a community that had previously been identified as a place where children displayed particularly high levels of physical activity and play with friends (Johansson *et al*., 2011). Previously studied by Johansson *et al*. (2011) and Jansson *et al*. (2016), the community in Staffanstorp, an urban conurbation of about 30,000 people, is designed with greenways, separate cycle and pedestrian pathways separating cyclists and pedestrians from traffic, and incorporates nature and wilderness as well as parks and accessible sport and recreation facilities. Here, despite generalised trends in a decline of children's independent mobility, 78% of 10-year-old children cycled independently or with

friends to leisure and recreation activities, free play opportunities and for errands (Johansson *et al*., 2011). As a consequence of the freedom of movement they were afforded, children had developed intimate knowledge of their community, guiding the researchers through 'a network of people and places' (Wales *et al*., 2021, p. 188) that fulfilled children's desires for play and sociality. This included a 'multitude of affordances (that) appeared to fuel the children's enthusiasm to be outside' (Wales *et al*., 2021, p. 188). Children were able to describe a range of different places where they played different things, at different times of the year, from designated play areas and green spaces, to 'more unmanaged places on the outskirts of the community' (Wales *et al*., 2021, p. 188); these were places that children were able to appropriate and change. Being with friends, and their shared goal of having fun, unlocked the potential of these spaces, enabling children to play in more ways, including making scary places into possibilities for adventure (Jansson *et al*., 2016; Wales *et al*., 2021). This collective approach to playing out again helped children and parents overcome concerns about safety in the public realm. Of note, length of residency emerged as a significant factor, with those who were less familiar with the community unsure of how to get around and therefore venturing out less often (Wales *et al*., 2021).

'The results describe how their independent mobility grows from their joint commitment to play and socialise in a collective process that builds on their experiences of the local environment to form a shared patchwork of people, places and practices that meets their mutual needs' (Wales *et al*., 2021, p. 184).

The researchers report how children's agency appeared to be on display as they walked through the community, with evidence of children playing found in the form of chalked drawings, dens and tree houses, and 'private football and basketball nets left standing in public areas' (Wales *et al*., 2021, p. 190). A reoccurring theme in discussions with children was their sense of attachment to the community, with children's acts of waving at others described as small celebrations of belonging. Equally, children recounted feeling that they had freedom of opportunity to roam and explore their neighbourhood from as young as seven years old (Jansson *et al*., 2016).

However, children also had concerns associated with future plans for urban expansion in the local area, conceptualising how an increase in traffic, the loss of green space and a reduced sense of community might erode their freedom to play. In particular, there were concerns that plans to convert one of the children's favoured areas of 'unprogrammed' green space into a more formal park, threatened to 'demolish its essence as a refuge for play and exploration' (Wales *et al*., 2021, p. 192); with it later emerging that the former owner of this so called 'Ghost Forest' had been actively managing this space so that children could play there but had since sold it to developers (Wales *et al*., 2021).

These two examples chime with findings from research in Wales in areas where children have been identified as experiencing a sufficiency of opportunities for play. In one such rural community, children in the final year of primary school reported playing out often, reeling off a list of different places where they would meet up and play.

'The combination of three well located designated play areas, set within more natural surroundings, incorporating or adjacent to sport facilities, together with other incidental features throughout the community and areas of wilderness in close proximity to homes, all made accessible by a network of formal and informal footpaths and pavements, makes for a rich and varied web of opportunities for play' (Barclay and Tawil, 2018, p. 18).

The location, layout and topography of the community also resulted in relatively low traffic volumes and speed, which, together with a long history and culture of playing out and a strong sense of community security born out of people knowing each other, resulted in a culture of permissiveness, where children were encouraged to play out together. However, again here, as in Wales *et al*. (2021), one girl who was newer to the community reported a smaller ranging distance and less confidence in navigating her way around, although she also expected this to improve in time.

The above examples illustrate just how intertwined and mutually dependent are environmental design, parental permission, children's willingness to play outside and the availability of other children to play with beyond the home, influencing in recursive ways the amount of time children spend outside, their freedom of movement and a culture of playing out (Barclay and Tawil, 2016; Loebach and Gilliland, 2016a, 2016b). Kyttä *et al*. (2012) explore how various built environment qualities can create the conditions for child friendliness with children and teenagers in Turku, Finland, exploring their place-based examples of favoured places and their mobility to these. Their findings are the result of a combination of over 12,000 context specific affordances, combined with objective measures of residential and building density, and quantity of green spaces. They establish, as did Johansson *et al*. (2011), Jansson *et al*. (2016) and Wales *et al*. (2021), that moderate density urban environments provide child-friendly characteristics including the ability to promote independent access to meaningful places and the diversity of affordances influencing children's satisfaction. When these affordances are situated within residential areas this indicates a likelihood children will access them independently, whereas what might be considered destination affordances often at the heart of urban environments are likely to require the accompaniment of an adult. Furthermore, whilst availability of green areas was not directly associated with independent mobility it was related to emotional affordance and the likelihood such places were well liked by children.

This perceived degree of usership together with informal oversight from the proximity to dwellings, local conveniences and socio-spatial familiarity, was also a focus of Marquet and Miralles-Guasch's (2016) detailed quantitative study that established up to a 20% increase in physical activity amongst children from neighbourhoods that were walkable and where access to local services such as shops and cafes were most readily accessed by walking. Children from areas where individual dwelling size was larger, distances to shops, cafes and services were greater and where the immediate neighbourhood was more suburban or mixed urban and industrial were less likely to walk for their everyday travel purposes. These basic qualities of neighbourhoods have long been recognised, for example Jane Jacobs' (1961, p. 35) notion of 'eyes on the street', the sense generated where the urban form and architectural design of a neighbourhood promote interaction amongst residents and provide for informal supervision and a sense of community safety.

As Barclay and Tawil (2016) observe in Wrexham County Borough Council's 2016 Play Sufficiency Assessment, environmental design and permission appear to be mutually dependent: where a greater number and variety of playable spaces exist there appear to be fewer issues associated with the contested nature of space, reducing community tensions and increasing parental confidence, leading to children being afforded more freedom to explore and make use of the environmental resources available. In Wrexham, communities where the majority of children reported high satisfaction with their opportunities to play were characterised by having several unstaffed designated play areas noted as both important to children's sense of sufficiency but also parents giving their children permission to play out. However, children in these communities also talked about multiple undesignated spaces that they appropriated for playing, suggesting that a much broader offering is needed than can be provided by designated provision alone, but that designated provision plays an important role (Barclay and Tawil, 2016; Lester and Russell, 2014a).

What emerges from these multiple studies is the interdependence of what Arup (2017) refers to as 'children's infrastructure' and 'everyday freedoms'. These can include a variety of spaces (planned and unprogrammed, small or larger, flat or landscaped, built or natural, fixed or flexible); playable features (for example, low walls, hiding spaces, mounds); planting for play (bushes and trees); connections between playable spaces; and sensitive

maintenance (for example recognising the value of freshly cut grass, dead leaves, hollows in hedgerows, fallen trees, puddles and mud) (Barclay and Tawil, 2016). Being able to access these spaces requires low or traffic free routes and no major roads to cross (Loebach and Gilliland, 2016a, 2016b). It also requires friends nearby (Play England, 2023), parental permission (Loebach and Gilliland, 2016a, 2016b), the absence of threats from other people and their actions (Barclay and Tawil, 2021; Beetham *et al.*, 2019; Dias and Whitaker, 2013; Gerlach *et al.*, 2019; Giles *et al.*, 2019; Goff *et al.*, 2014; Horton and Kraftl, 2018a, 2018b; Pinckney *et al.*, 2019; von Benzon, 2017; Witten *et al.*, 2019) and a culture where playing out is seen as normal (Barclay and Tawil, 2021; Lester and Russell, 2013; Wales *et al.*, 2021). These features do not operate in isolation. In sum, the capability to play out emerges from relations among sufficient environmental resources and the ability to access them.

4.4 Playing in the pandemic

In March 2020, the UK and devolved governments announced a national lockdown in response to the COVID-19 pandemic. Lockdowns included asking people to work from home where possible, closing schools (to all but a small number of children), leisure facilities (including children's playgrounds), hospitality establishments and non-essential shops. People were not allowed to mix socially outside of their immediate household, although daily outdoor exercise was permitted and to some extent encouraged (Holt and Murray, 2021). The following two years saw two further national lockdowns and a range of other mitigating measures to curb the spread of the virus (Institute for Government, 2021), although these played out differently across the devolved nations. The Welsh Government explicitly acknowledged the importance of play for children, for example in their guidance on reopening children's playgrounds (Welsh Government, 2020g).

Children's advocacy groups noted that children were disproportionately affected by governments' mitigating measures, with the United Nations (2020, p. 2) saying that they risked being among the pandemic's biggest victims (see also All Party Parliamentary Group on a Fit and Healthy Childhood, 2021; BBC Children in Need, 2020; The Children's Society, 2020). In terms of children's play, these emergency control measures radically reconfigured the majority of children's everyday geographies resulting in a dramatic shift in where, when, how and with whom play occurred, placing unprecedented restrictions on children's ability to meet up and play with friends (Andres *et al.*, 2023; Graber *et al.*, 2021; Kourti *et al.*, 2021; Mukherjee, 2021; Russell and Stenning, 2021, 2022). However, as England's Children's Commissioner (2020, p. 2) pointed out this was 'not simply a story of doom and gloom'. Despite these constraints, children's play persisted (Weinstein, 2021), with many accounts emerging of children adapting and transforming their play patterns in response to the conditions of lockdown (Cowan *et al.*, 2021; Graber *et al.*, 2021; Mukherjee, 2021; Russell and Stenning, 2021, 2022).

In their review of 17 European and North American studies, Kourti *et al.* (2021) found that generally while outdoor play had decreased during the pandemic, indoor play increased, with an even greater reliance on digital technologies than before (Mukherjee, 2021). Children created new ways of playing, involving siblings and parents where possible, as well as transforming and adding to their uses of digital devices to maintain contact with friends and family (Kourti *et al.*, 2021).

In 2020, two months after lockdown restrictions were first introduced, the office of the Children's Commissioner for Wales carried out a two-week consultation, involving 23,700 children aged eight to eighteen. Across all ages, more than half reported having more time to play or relax. This suggests the reduction in other commitments (whether associated with school, homework, or other activities) freed up time for playing for many but not for all

children. However, whilst there were many positive comments about spending more time with family members, 'not being able to spend time with friends' was the factor most commonly identified by children when asked about what was affecting how they felt as a consequence of the 'stay at home' rules (Children's Commissioner for Wales, 2020). When asked what they enjoyed most when playing, responses included having a chance to forget about the pandemic and enjoying more freedom (a response that seems at odds with the restrictive measures of the pandemic but is perhaps revealing in terms of children's lived experiences of life in more normal times). Alongside popular responses of reading, watching TV and spending time with family, other responses from older children included exercising, playing music, writing, making TikTok videos, coding, baking, pampering, running a YouTube channel or even creating a business (Children's Commissioner for Wales, 2020), suggesting that some children were able to invest more time in being creative (Cowan *et al*., 2021). Parents also reported valuing the additional time they had to spend with children (Kourti *et al*., 2020).

Since the early stages of the pandemic there have also been accounts of children's play incorporating references to the virus (Cowan *et al*., 2021; Kourti *et al*., 2021), a phenomenon that reflects traditional accounts of children's play in previous pandemics and in other times of crisis and adversity (Graber *et al*., 2021). In this more modern context, examples included Covid tag in schools (prior to lockdown), socially distanced toy tea parties and the building of a 'coronavirus clinic' in Minecraft, the world building video game (Weinstein, 2021; Cowan *et al*., 2021). At the same time, the lack of opportunities to play outside were the focus of campaigns by play advocates (for example, Ferguson *et al*., 2021; PlayFirstUK, 2020; Stenning and Russell, 2020; Summer of Play Campaign, 2021). Nevertheless, experiences of the pandemic and associated mitigating measures were experienced very differently by different children, with existing inequalities being brought into sharp relief. These issues are reviewed in more detail in section 4.4.3.

4.4.1 Digital play in the pandemic

The National Observatory of Children's Play Experiences During COVID-19 was a 15-month international project led by an interdisciplinary team of UK-based researchers exploring impacts of the pandemic on children's play. The research was conducted online and gathered examples of children's play throughout the pandemic. Participants also had the option to upload accompanying media files such as photographs, drawings, video and audio (Cowan *et al*., 2021). Whilst acknowledging that digital technologies already 'occupied a central place in many children's lives prior to the pandemic' (Cowan *et al*., 2021, p. 9), findings from the observatory illustrate an intensification in children's uses of these devices during their play in the pandemic, a conclusion supported by other studies (Kourti, 2021).

'The findings highlight ways in which digital play continued, adapted, evolved and reflected children's experiences and understandings of the pandemic. The study reveals the complexity of digital play and its place within contemporary digital childhoods, troubling simplistic notions of "screen time" and highlighting the increasingly blurred boundaries around digital and non-digital practices' (Cowan *et al*., 2021, p. 8).

Accounts of children's play from the observatory span a wide range of ages, with examples taking place online and offline, as well as hybrid forms of onscreen-offscreen play (Weinstein, 2021). Minecraft and Roblox were particularly popular, with children meeting up with friends in these virtual worlds. Some of these meet ups involved just one or two friends but others consisted of larger friendship groups playing games like Among Us (Cowan *et al*., 2021). There are also accounts of digital gameplay being enjoyed as an intergenerational family activity with examples given of Mario Cart and Just Dance (Cowan *et al*., 2021), indicating that at least some of children's screen use involved physical activity (Kourti, 2021). Grandparents were also involved, playing board games, or even hide and seek, with grandchildren via Zoom (Cowan *et al*., 2021). Children transformed their uses

of digital technologies in response to the restrictions of lockdown. Examples included using video conferencing software to play with others across distances, in some cases using multiple devices to simultaneously see each other and play online games (Kourti, 2021). Digital devices were also used for watching television and films, streaming services like Netflix and content on YouTube, with some of this again being shared experiences with friends and family using the likes of Zoom (Cowan *et al.*, 2021). In one example, a 17-year-old girl in Dublin set up a computer on a table in the front garden to share a socially distanced movie night with a best friend (Barron and Emmett, 2020b). Playing with digital technologies during the pandemic was valued by both children and adults, making a positive contribution to their sense of wellbeing and helping them stay connected with friends and family during lockdown (Cowan *et al.*, 2021). The importance of digital devices was acknowledged by the World Health Organisation (WHO), who, in the context of the pandemic, shifted from raising concerns about children's screen time to recommending it as a way of helping children to stay well (Colvert, 2021; Kourti *et al.*, 2021).

4.4.2 Outdoor play in the pandemic

There are also many examples of playing that did not include digital devices (Cowan *et al.*, 2021) and not all of children's play was confined to indoors. Threshold spaces, in particular private gardens for those that had them, took on an increasing importance in the pandemic (Barron and Emmett, 2020b), as did other transitional spaces close to people's homes (Stenning and Russell, 2020; Russell and Stenning, 2021, 2022).

In the UK, as in many other countries, lockdown conditions resulted in a dramatic reduction in motor traffic, down as much as 73% (Carrington, 2020) with an associated drop in air pollution (Stenning and Russell, 2020). In response, children and families found playful ways to re-appropriate their local streets, making connections with other people (Russell and Stenning, 2021), whilst maintaining their social distance. This included children chalking on the driveways, pavements and streets outside their homes (Cowan *et al.*, 2021), in some instances leaving play cues (such as chalk trails) out for others which in turn instigated intergenerational community connections (Russell and Stenning, 2020; Wilson, 2021). Families used streets for exercise, running and riding along quieter roads (Russell and Stenning, 2021). There were accounts from teenage boys in Swansea, of children and adults co-opting a closed car park turning it into a temporary community skate, bike and scooter park (Play Wales, 2021c).

Russell and Stenning (2021) suggest that, at a time where opportunities for social connection and physicality were much restricted, these playful practices enabled connection and mutual support, generating moments when life felt better. These examples present an opportunity to think about how streets might be culturally and physically re-configured to support more diverse forms of movement and mobility, as well as paying attention to streets as places for 'dwelling, playing and connection and how these other activities connect to issues of health, wellbeing and spatial justice' (Russell and Stenning, 2020, p. S197). The boys in Swansea acknowledged that their temporary skate park helped them to cope during the pandemic as well as revealing the potential value of having skateable and rideable spaces close enough that they could access them of their own accord (Play Wales, 2020c).

4.4.3 Inequalities in opportunities for play

Nevertheless, such moments of connection were not universal during lockdowns, which were experienced very differently for many children. Images of rainbows in windows and other internet-enabled asynchronous playful connections on residential streets such as hopscotch, chalk trails, teddy bear trails and more were picked up and represented in the media as 'harbingers of hope and symbols of national spirit' (Mukherjee, 2021, p. 28). However, such narratives conspicuously erased the experiences of more marginalised children (Mukherjee, 2021). It is clear that children had vastly different experiences of the pandemic (Holt and Murray, 2021) across different communities (Green *et al.*, 2022), with the extent of their opportunities to play again dependent on their spatial and material surroundings.

Many children felt lonely and isolated from their friends (Children's Commissioner for England, 2020), and others experienced bereavement, distress and anxiety (Children's Commissioner for Wales, 2020). The pandemic further exposed and exacerbated existing inequalities (Green *et al.*, 2022), disproportionately affecting those with less money, those in overcrowded or temporary accommodation, ethnic minorities, and families with mental ill-health or drug and alcohol related problems (Holt and Murray, 2021) as well as those whose work was considered essential and so were unable to be furloughed or work from home, making staying home a privilege (Gibson-Miller *et al.*, 2022). This included a higher risk of death amongst minority ethnic groups and in more economically deprived areas, as well as a greater risk of infection in lower income households, in part due to adults working with COVID-19 patients and in public service roles (Green *et al.*, 2022).

The COVID-19 pandemic and its associated constraints and opportunities has exposed the link between housing and health, in particular the importance of having access to sufficient indoor and outdoor space (Green *et al.*, 2022), with a lack of garden space seriously limiting children's ability to play outdoors (Barron and Emmett, 2020). The pandemic also reaffirmed the value of green infrastructure and the benefits of people having easy access to green and blue spaces. Over 1.8 million families in the UK live in overcrowded accommodation, with ethnic minority groups disproportionately affected. In Wales, this represents 5.5% of the population, with over 3,600 children spending lockdown in a home with only two rooms (Green *et al.*, 2022). 8% of British households are reported as having no access to a private garden, with poorer and ethnic minority families in urban areas again disproportionately affected (Children's Commissioner for England, 2020; Holt and Murray, 2021; Russell and Stenning, 2020). Visits to green spaces during the pandemic were also more likely for those living in the least deprived areas (Green *et al.*, 2022). Furthermore, there were inequalities in respect of internet access (so vital to many in respect of maintaining connections with family and friends), with an estimated 60,000 eleven- to eighteen-year-olds across the UK having no home internet access (Children's Commissioner for England, 2020).

Many children in temporary accommodation also spent lockdown sharing a single room (Children's Commissioner for England, 2020). These poorer quality living conditions made it much more difficult for families to cope during lockdown (Cowie and Myers, 2020). A significant rise in domestic abuse and child abuse during this period, again disproportionately affecting families living in overcrowded situations (Holt and Murray, 2021), meant that staying inside was more dangerous for many children (Stenning and Russell, 2020). Children identified as having 'special educational needs and disability' and their families also experienced particular difficulties during the pandemic (Children's Commissioner for England, 2020).

More than anything, children's play in the pandemic illustrates their need to connect and feel connected and that this cannot be provided for through digital technologies alone, crucially important though they were during lockdown. There is some suggestion that in the UK these negative impacts of the pandemic on children may have been further exacerbated in the second and third lockdowns which occurred during the winter months when weather and darkness further limited children's opportunities to play outside (Cowan *et al.*, 2021). Furthermore, in many ways children's play patterns during the pandemic represent an intensification of trends that were already in play, with the practice of restricting children's use of private and public spaces being neither new or unique to the COVID-19 pandemic (Barron and Emmett, 2020).

4.5 Playing in and around the home

Having considered playing in third space in section 4.3, this section returns to Oldenburg's (1989) framework to consider the home as first place. Children's own homes and gardens, and those of their friends, are the most commonly reported and often preferred places for playing (Dallimore, 2019, 2023; Dodd *et al*., 2021a; Kearns *et al*., 2016). Homes, particularly for very young children, are the primary context for much of children's play, with play tours of homes in the UK revealing evidence of children's play in every single room (Marsh *et al*., 2020). Indeed, children who are unable to play out in the wider public realm place great emphasis on different spaces within the home, listing different rooms and different digital devices as places where they play (Barclay and Tawil, 2021). For many children, 'home' includes private indoor and outdoor space, such as back gardens and yards, as well as associated semi-private threshold spaces, like front gardens, driveways, courtyards, apartment foyers, corridors, stairwells and car parks (Kearns *et al*., 2016).

Despite many children in the minority world spending much of their time outside of school hours playing inside or just outside their homes (Adcock, 2016; Bacon, 2018), in general there is less research on children's domestic play habits compared to studies exploring children's play in the public realm or in the non-domestic institutions of childhood (Adcock, 2016; Lincoln, 2016; Meire, 2007; Woodyer and Carter, 2020). Much of this is due to people's homes being seen as private space, with ethical and practical difficulties for researchers in terms of gaining access (Adcock, 2016; Lincoln, 2016).

In the minority world, and in contrast to other places where children play, the home 'is heavily bound up with notions of privacy' (Adcock, 2016, p. 407). Through the idealisation of the domestic sphere, homes tend to be thought of as places of safety, protected from the apparent risks of the public realm by physical barriers including doors, locks, walls, fences, gates, dense planting and other security features (Adcock, 2016, citing Gregson, 2007). Whilst pervasive, such a view can be challenged on at least two counts. The first is that the home is not a place of safety for all children (Wilson, 2015, and see below). The second is that external influences on the home environment 'question and problematise the bracketing off of home as a bounded, discrete space or site' (Woodyer and Carter, 2020, p. 1051). Nevertheless, homes can provide many children with a sense of ownership and familiarity, a place to 'be themselves' away from public scrutiny (Adcock, 2016; Harden *et al*., 2013). Whilst the home environment remains largely regulated and controlled by adults, comparisons between children's experiences at home, school and in childcare settings suggest it is the home where children are likely to experience a greater sense of autonomy, negotiating child-adult relationships and shared use of space (Bacon, 2018; Harden *et al*., 2013), these being elements of wellbeing that children may find difficult to replicate elsewhere (Harden *et al*., 2013).

The trend towards more time spent playing in and around the home can be traced back to the industrial revolution of the early nineteenth century, with the public sphere of employment increasingly structured as separate from the domestic space of home, the former traditionally being dominated by men and the latter intended for women (Adcock, 2016). As a result of this, 'the home became a private sanctuary against the realities of mass production and focus shifted from children's productive power in the public sphere to that of their consumptive abilities within the home' (Loebenberg, 2013, p. 118). Whilst these gender dynamics have changed to some small extent, the generational ones have not, and the 'modern domestic ideal' continues, with private homes expected to provide children with a place of safety, care and comfort (Adcock, 2016).

These domestic ideals have been further reinforced by increased concerns about children's vulnerability (or recklessness) in the public realm (Adcock, 2016), with a significant shift in children's play patterns from time spent beyond the home to within it, mostly taking place within the second half of the twentieth century (Cowman, 2017; Lincoln, 2016; Shaw *et al*., 2012). Karsten (2005), using three case studies in Amsterdam, shows how a rapid increase in cars in parallel with a dramatic drop in the number of children (particularly between 1950 and 1975) transformed the space available to children. Consequently, private homes, rather than public streets, became 'the

primary setting of a child's spatial experience' (Loebenberg, 2013, p. 118). In response, parents invested in toys and media technologies aimed at providing for children's play within the home (Lincoln, 2016), accompanied by a concurrent rise in consumer goods targeted at children (Cowman, 2017).

As with any trend in children's play patterns, generalisations on playing in the home obscure the lives of those whose homes are not safe, including those living with domestic violence, abuse and neglects (Chanmugam, 2017), although for some, bedrooms provide some escape (Bacon, 2018). Children who stay away from home may also have to behave differently to fit in, for example those in boarding schools, where it might be risky to be seen owning a cuddly toy, as well as potentially missing out on home comforts of cuddles and kisses and bedtime stories (Jones, 2018), or children living in a homeless shelter where restrictions on playing in corridors mean families are confined to a single room (Russell *et al*., 2019), or children who are young carers, whose caring responsibilities may impact on their time for play (Tawil and Barclay, 2021). Parent-child relationships and family dynamics shape children's play within the home in ways that are often dependent on age (Bacon, 2018).

4.5.1 Parenting and play

Whilst the home is a primary context for much of children's play, and children can have significant influence on family practices and use of space within the home, homes also remain largely adult controlled environments (Bacon, 2018; Marsh *et al*., 2020). Indeed, as Harden *et al*. (2013, p. 301) suggest, 'the home can therefore be seen as the spatial representation of a form of parental care'. Children are dependent on adults to provide them with a home, with parents and carers shaping children's opportunities for play directly and indirectly, both within the home and beyond (Foy-Phillips and Lloyd-Evans, 2011; Pynn *et al*., 2019). Direct influences include the extent to which parents and carers play with children (Marsh *et al*., 2020), the material resources they provide for children (Arnold *et al*., 2012; Cowman, 2017; Klemenović, 2014), the places that they take children (Durko and Petrick, 2013; Fountain *et al*., 2013; Larson, 2013; McCabe *et al*., 2010), and the opportunities they arrange for children to play together (Mose, 2016). More indirect parental influences include where children live, what school they attend, and what out of school activities they engage in, in ways that are classed, racialised and gendered (Holloway and Pimlott-Wilson, 2014; Katz, 2018, 2019).

The 'good parenting' ideal

Parental attitudes and approaches to children's play are influenced by what they perceive good parenting to entail (Lee *et al*., 2015). Just as contemporary conditions shape a diversity of childhoods (Karsten, 2005; Loebach and Gilliand, 2016a, 2016b), so different styles of parenting have emerged. The good parenting ideal refers to broad, ideological ways in which particular communities and societies may shape the role of parents in caring for children and what parents understand in terms of societal expectations for their parenting (Holt *et al*., 2015, 2016; Pynn *et al*., 2019). With the growing child-centeredness of contemporary family life, parenting practices are increasingly influenced by what is seen as being best for children, with an overriding desire amongst most parents that children be happy and healthy, both now and in the future (Irwin and Elley, 2011). This includes paying attention to children's views, with contemporary parenting practices often emerging through an ongoing process of negotiation between parents and children (Holloway, 2014).

Parenting ideals change over time and are often reported as being differentiated by socio-economic status (Lee *et al*., 2015). However, others have argued that these differences may be less to do with what parents understand to be important and more about what they are able to provide their children with given the material resources available to them (Katz, 2018, 2019; Vincent and Maxwell, 2016). For example, in the context of children attending organised after school activities, children's engagement with such activities may have more to do with financial resources than different ideas of what is good for children (Holloway and Pimlott-Wilson, 2014; Marsh *et al*., 2020; Vincent and Maxwell, 2016). Furthermore, there is diversity in parenting approaches within, as well as across class (Irwin and Elley, 2011). However, ideals of 'good parenting' that come to dominate are often those produced and perpetuated 'through normative constructions of white, middle class, two-parent families' (Foy-Phillips and Lloyd-

Evans, 2011, p. 381; see also Visser *et al.*, 2015), with the added tacit assumption that such parents will also be heterosexual (Sotevik *et al.*, 2019).

In contemporary minority world contexts, ideals about what constitutes 'good parenting' increasingly involve 'good supervision', which means knowing what children are doing at all times (Jelleyman *et al.*, 2019), with the promotion of children's health and fitness also becoming an important feature of what is seen as 'good parenting' (Mainland *et al.*, 2017). Many parents themselves are expected to be 'emotionally absorbed and personally fulfilled through becoming a parent' (Mainland *et al.*, 2017, p. 86). This shift towards more intensive forms of parenting must be understood within a climate of heightened concerns for children's safety, where parents are increasingly 'held to account for every aspect of their children's development (and safety)' (Rixon *et al.*, 2019, p. 627). As a consequence, a greater emphasis is placed on parental involvement in children's play lives and an increased expectation that children will partake in adult supervised activities beyond formal education (Pynn *et al.*, 2019).

These dominant discourses of childhood risk and associated constructs of 'good parenting' shape parenting practices even where they are critiqued, resisted and opposed (Mainland *et al.*, 2017). The normalisation of intensive parenting casts lower levels of parental involvement and supervision as indicative of 'poor' parenting, with parents who are not willing or able to engage in such practices at risk of being seen as deficient (Holloway and Pimlott-Wilson, 2014; Pynn *et al.*, 2019; Vincent and Maxwell, 2019). Through this 'othering', parents may reaffirm their own sense of being a 'good parent'. However, this also alludes to the growing politicisation of parenting and the ways in which powerful political forces may seek to shape and perpetuate particular parenting ideals (Holloway and Pimlott-Wilson, 2014; Katz, 2018, 2019), with many governments seeing 'middle-class practices as the embodiment of the "good parenting" the poor have to adhere to' (Visser *et al.*, 2015, p. 119). For example, the UK government's neoliberal orthodoxy (preoccupied with the economic usefulness of citizens) has created a policy climate that emphasises individual responsibility for one's life trajectory (Vincent and Maxwell, 2016). Within this, parents are held responsible for the pro-active development of children and their overall success in life, with passivity (again) constructed as indicating a lack of effort or care and the influence of economic circumstances marginalised (Mainland *et al.*, 2017; Vincent and Maxwell, 2016).

Parental employment patterns also play a key role in ideas of what constitutes being a 'good parent', with children voicing mixed feelings about parents 'being there' and also controlling what they do in the home (Harden *et al.*, 2013). If parents work outside the home, children are looked after elsewhere (Harden *et al.*, 2013) with implications for their opportunities to play. For example, Dodd *et al.* (2021a) found that children whose 'responding caregiver was relatively young and worked part-time' played outside more often.

Parenting styles and child-parent interactions are also influenced by the genders of both children and parents (Bacon, 2018). Despite over 75% of mothers of dependent children being in paid employment, mothers continue to provide the majority of childcare (Office for National Statistics, 2022c). Parents are also more likely to undertake gender-stereotyped activities with their children, for example arts and craft activities with girls and sporting activities with boys (Marsh *et al.*, 2020). As local parenting cultures are produced and reproduced 'through social networks comprising people who have similar ideas about raising children' (Visser *et al.*, 2015, p. 114), these gendered norms can create pressure to conform, with Foy-Phillips and Lloyd-Evans (2011) arguing that such pressures may be more intense in rural communities due to family life being particularly visible. Social media and other websites, whilst potentially providing a source of social support for parents, can also add to this pressure, often acting as a 'highlight reel' where parents post their children's achievements and present successful versions of themselves as parents (Pynn *et al.*, 2019, p. 272).

Hyperlocal parenting practices

Throughout the minority world, generalised approaches to parenting may have changed across recent generations (Pynn *et al*., 2019), however, universal accounts of parenting cultures often neglect the complexities and subjectivities of different parenting approaches (Talbot, 2013), which are themselves often highly dependent on context (Holloway, 2014; Pynn *et al*., 2019; Visser *et al*., 2015). These localised parenting cultures in turn shape children's opportunities for play (Foy-Phillips and Lloyd-Evans, 2011). Whilst parenting may be seen as a highly 'personal, intensive and intuitive experience', it is also infused with aspects of gender, class, and ethnicity (Vincent and Maxwell, 2016, p. 270), shaped by the material belongings of parents, their social networks and community interactions, and hyperlocal configurations of private and public space (Foy-Phillips and Lloyd-Evans, 2011; Holloway and Pimlott-Wilson, 2014; Pynn *et al*., 2019).

A qualitative study by Allport *et al*. (2019) of refugee families, forced to leave Somalia due to war and now living in tower blocks in a large UK city, compares and contrasts six mothers' recollections of childhood in rural Somalia with their experiences of parenting in the UK. They illustrate how children's early play experiences and parenting practices can be more a product of circumstances than what parents may want for their children. Here the mothers' accounts of communal child-rearing in rural Somalia, where children play outside as soon as they can walk, contrasts sharply with the mothers' current experiences of living in small flats, in a highly urban and unfamiliar environment.

Whilst there is 'nostalgia for a society left behind' (Allport *et al*., 2019, p. 194), it is clear that these parents value their children being able to play outside but are struggling to allow them to do so because of multiple constraining factors. Despite escaping armed conflict, the mothers perceive their present context to be too dangerous to allow their children outside to play without an adult, citing traffic and the fear of abuse or abduction as particular concerns. These pressures are exacerbated by cramped living conditions, with insufficient space to entertain others or have friends around to play. A lack of communal space and a perceived culture of minding your own business, further limits opportunities to interact with neighbours and meet new people, making the loss of a close-knit community in Somalia, with support from extended family, all the more acute. Add to this a lack of local knowledge and language skills, as well as limited financial and material resources, and it is not difficult to see why these mothers feel isolated and fearful of a place unfamiliar to them. Consequently, children are largely confined to the home and heavily reliant on TV for entertainment (Allport *et al*., 2019). The authors conclude by suggesting that refugee families such as these need spaces where they and their children can meet other families, enabling them to develop a sense of community, thereby reducing social isolation and supporting 'confident and culturally congruent parenting' (Allport *et al*., 2019, p. 198). One example of where this has happened, in a very similar context, is a Somali parent setting up an activities club and street play sessions.[151]

4.5.2 Play with toys

In the twenty-first century, families in rich countries, on average, have more material possessions than ever before, with manufacturers and retailers reaping the rewards (Arnold *et al*., 2012). For children this commonly means an abundance of toys within the home. Working parents, with fewer children to provide for, combined with low-cost goods mass-manufactured in East Asian countries, means that this 'vigorous show of consumerism' has been embraced across class, with 'real and striking impacts on the home' (Arnold *et al*., 2012, p. 24; see also Cowman, 2017; Klemenović, 2014). Many families amass more objects than can be stored, which together with the growing child-centeredness of family life, means that children's paraphernalia pervades the living areas of most homes, giving them a significantly different appearance to those of the mid-twentieth century (Arnold

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[151] This is described in more detail in chapter 5, section 5.9.3.

et al., 2012). In a study of 32 middle class American households, Arnold *et al*. (2012) identified an average of 139 visible toys in family homes, with most having at least 100 and some as many as 250. Similarly, Dauch *et al*. (2018) identified an average of nearly 90 toys in young children's home environments. As Jones (2018, p. 460) suggests 'the sheer volume of stuff in at least some modern childhoods is startling'. Concerns have been raised about the financial strain and associated stress on families of trying to keep up with this trend, as well as the effects of such household clutter on the mood levels of parents (Arnold *et al*., 2012). Other research has suggested that such an abundance of toys may have implications for young children's sustained attention when playing, with toddlers playing for longer and in more creative ways when provided with fewer toys (Dauch *et al*., 2018).

The toy industry is big business, with manufactures seeking continually to attract children with an ever greater variety of increasingly sophisticated toys (Klemenović, 2014), and toy sales increasing significantly during the COVID-19 pandemic. For example, two of the largest toy companies, Lego and Mattel, recorded sales of $8.4 billion and $5.4 billion in 2021 respectively, up 27% and 19% on the previous year (Lego, 2022; Mattel, 2022; Tighe, 2022). In the UK, total sales for toys in 2020 reached £3.3 billion, 'maintaining the UK's position as the largest toy market in Europe and fourth largest globally' (Toyworld, 2021). The fastest growing category was sales of (board and card) games and puzzles, reportedly associated with families spending more time together during lockdown (Toyworld, 2021). However, whilst Monopoly, Dobble and UNO all featured in the top 15 best-selling toys of 2020, dolls were the most popular, taking the top two and a further four places in the top 15, with toy cars, digital toys and Lego kits also featuring (Toyworld, 2021).

Commercial toys, as adult made objects (Baxter, 2016; Klemenović, 2014), are imbued with intentions and designed to seduce consumers, be they children themselves or adults purchasing on behalf of children (Brougère, 2018). Fun and education are two core rhetorics in the design and marketing of toys; fun being the more dominant (a reflection of children's contemporary mass culture), but education also perpetuating, especially in relation to toys for younger children who are likely to be more dependent on the choices of adults (Brougère, 2018). Safety also remains an important feature of toy design (Klemenović, 2014). Decisions on buying toys are often made between children and parents, or at least influenced by children's interests and preferences (Dinella and Weisgram, 2018; Klemenović, 2014), with media, marketing, and societal gender stereotypes affecting both parents' and children's choices (Dinella and Weisgram, 2018). Younger children have been shown to be particularly susceptible to manipulation by commercial advertising, with some countries imposing restrictions on advertising to certain ages of children (Klemenović, 2014).

As children get older the social value of toys becomes increasingly important (Loebenberg, 2012), with toys forming a significant element of the material cultures of childhood (Buckingham, 2011; Mertala *et al*., 2016; Wilson, 2016; Wohlwend, 2020).[152] Owning popular toys can increase children's opportunities for social play, because other children want to play with those same objects (Mertala *et al*., 2016). This may help to explain sweeping crazes of toys which seem to provide 'vital currencies of childhood' at particular times (Jones, 2018, p. 460). Simplistic and negative connotations of consumerism have been challenged, with researchers illustrating how commercial media and toys can offer a jumping off point from which children consume and produce in creative ways (Loebenburg, 2012) and highlighting how 'children transform the meanings of commercial toys to craft their own interpretations of key concerns in their lives' (Cook, 2013, p. 42).

License-driven toys sales represented 26% of all toy sales in the UK in 2020 (Toyworld, 2021), with many of children's commercially available toys being strongly associated with media brands (Mertala *et al*., 2016), brands that children engage in multi-modal ways from watching TV and film to playing with figurines, kits and associated

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[152] See chapter 3, section 3.10.6 for more on the relationship between the material cultures of childhood and children's wellbeing.

games (Marsh, 2014; Marsh and Bishop, 2013; Willett *et al.*, 2013). Following a long tradition of children playing with trading cards, the example of Pokémon cards illustrates how children are both consumers and producers in their play with such toys, watching television programmes, purchasing and exchanging cards, learning to draw the characters, studying their various attributes, and transforming them into collections; with the amassing of knowledge about Pokémon a key element of playing the game (Loebenberg, 2012). Whilst the purchasing of such toys is a commercial act, much of the collecting and studying happens at home, with the trading of cards often taking place at school (Loebenberg, 2012).

'The participant children's use of their collections and knowledge of media-based toys demonstrates how mass-consumer products can be manipulated and re-purposed toward social practices within the home. Such repurposing not only evidences children's active participation in global flows surrounding toy products, but also the ways in which local peer cultures can cement a particular form of cultural practice within the individual's home' (Loebenberg, 2012, p. 127).

Woodyer and Carter (2020), focusing on the re-emergence of military action figures in the UK in the form of 'Her Majesty's Armed Forces' toy range, argue that debates about children's war play have often 'ignored the everyday experiences and agency of children, and have assumed that an inherent "power" in the war toy object is determinant of the play outcome' (Woodyer and Carter, 2020, pp. 1056-1057). These toys can be seen as part of a broader domestication of contemporary geopolitics, with intent to garner public support for overseas military action and 'a wider re-enchantment with the British military' (Woodyer and Carter, 2020, p. 1060). The materiality of the toy, its marketing and packaging, as well as children's awareness of military conflicts and campaigns, gives the toy its 'war like' functions, which children readily recognise. However, in practice, the vast array of ways in which children were observed playing with these figurines within the home 'far exceeded those immediately suggested by the military design of the toy' (Wooder, 2017, p. 76), with much of this play scarcely representative of war play at all (Woodyer and Carter, 2020). Whilst there may be valid concerns about children's play reproducing and normalising harmful and divisive stereotypes, play is also a transformative and 'inherently creative practice' (Woodyer, 2017, p. 76), meaning that 'as objects of mass consumption are brought into the home, they can take on new meanings and social lives' (Loebenberg, 2012, p. 118). Such an understanding emphasises the significance of particular toys in children's lives, with toys offering a source of comfort and children forming strong attachments to favourite toys that often maintain through adulthood (Jones, 2018).

4.5.3 Gendered toys

The gender-stereotyping of toys and of children's toy preferences has been of interest to academic researchers for decades, mostly focusing on young children (Goldsmith, 2021). Much of the research adopts a binary approach, categorising toys – and children – as either masculine or feminine (Dinella and Weisgram, 2018).

One concern addressed in research is that 'gender-typed play patterns and repeated exposure to gender stereotypes during children's formative years may lead to gender differentiation in children's capabilities and life experiences' (Dinella and Weisgram, 2018, p. 254). Indeed, children's preferences for toys have been found to be strongly associated with gender (Klemenović, 2014; Todd *et al*., 2018), with children as young as 12.5 months displaying gender-stereotyped preferences for toys (Boe and Woods, 2017).[153]

These differences, whilst significant, are modified by age and are likely influenced by a complex mix of biological, cognitive and social factors (Dinella and Weisgram, 2018; Todd *et al*., 2018). This includes the decisions adults make when designing and marketing toys (Yeung and Wong, 2018). Explicit verbal labels, implicit gender-typed colour coding, as well as the use of male or female models can be used to convey gendered messages to children (Dinella and Weisgram, 2018). In addition, adults may 'perpetuate gender typed toy play by creating toys with gender-stereotyped narrative content' (Dinella and Weisgram, 2018, p. 255). One example is how the distinct gendered messaging of Lego sets marketed at boys and girls promote stereotypical gender roles, with boys encouraged to 'enact various skilled professions, heroism, and expertise' but girls encouraged to 'focus on having hobbies, being domestic, caring for others, socializing, being amateurs, and appreciating and striving for beauty' (Reich *et al*., 2018, p. 285). Nevertheless, whilst toy companies may be seen as leading children to accept these themes, this is likely part of a cyclical process in which children's gendered interests also shape toy development, with companies appearing to provide customers with what they want (Dinella and Weisgram, 2018).

Children's gendered preferences for toys are also shaped by other forces in their lives, including media and the purchasing behaviours of adults. For example, Spinner *et al*. (2018) found that media images can influence the extent of children's gender flexibility in toy preference and play mate choice. Children, aged four to seven, who had viewed magazine images of similar aged peers playing with counter-stereotypical toys, were found to exhibit greater gender flexibility in their own toy preferences and choice of play mates, compared to those viewing more stereotypical images, suggesting children may also learn these behaviours from observing other children at play (Dinella and Weisgram, 2018). One factor influencing parental preferences for children's toys is the extent to which their own experiences of childhood involved gender-stereotypical toys (Weisgram and Bruun, 2018), with fathers tending to hold more traditional views of gender roles than mothers (Klemenović, 2014; Kollmayer *et al*., 2018). However, in general parents prefer same-gender-typed or gender-neutral toys over those that might be seen as cross-gender (Kollmayer *et al*., 2018).

4.5.4 Children's bedroom culture

Lincoln (2016) traces the emergence of 'bedroom culture', attributing the term to Angela McRobbie and Jenny Garber (1979), who proposed that teenage girls (who were largely absent from accounts of street-based youth sub-cultures of the time, which tended to be dominated by white, working-class boys) were creating their own distinct cultures within the home. Bedrooms provided semi-private and easily accessible spaces for girls who spent more time within the home, due to domestic duties and perceptions that girls were at greater risk in the public realm. Commercial companies responded with a package of mass produced, affordable and easily consumed media including pop music and magazines. Discussions of 'bedroom culture' then re-emerged in the 1990s in response to a significant cultural shift in both girls *and* boys spending more of their leisure time inside the home, with gendered differences in children's play patterns becoming less stark (Bacon, 2018; Lincoln, 2016), although teenager's bedroom culture as described below may still be more common amongst girls (Adcock, 2016). In response, parents bought more electronic media technologies that children could use in their bedrooms, with an associated commercial culture 'that fed on the consumption practices of young people' (Lincoln, 2016, p. 429; see also Livingstone, 2007).

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[153] The causes, correlates and consequences of gendered forms of playing are also considered in chapter 3, section 3.3.3.

Today, inside the home, many children value their bedrooms as spaces for play, with children's 'bedroom culture' more common in the minority world due to its dependency on wealth and consumer culture (Lincoln, 2016). In Britain, contemporary social expectations associated with the growing child-centeredness of family life, are that children should have their own bedrooms and, as families have reduced in size, it is common for them to do so (Bacon, 2018; Adcock, 2016). However, this is still largely dependent on parents having the financial resources required to own a property of sufficient size, making their economic status a significant structural influence over children's access to and experience of bedroom space (Bacon, 2018). Many children have to share bedrooms and so their experiences are shaped by other family members, often siblings with whom they continuously negotiate space (Bacon, 2018; Lincoln, 2016). Smaller bedrooms also increase the likelihood that children's play will occupy more space in other parts of the home (Bacon, 2018). As children have retreated from the public realm, spaces for playing inside the home, and bedrooms in particular, have become increasingly important, meaning that those with less domestic space are once again at a disadvantage (Adcock, 2016; Bacon, 2018).

The bedrooms of European children are often media-rich environments (Bacon, 2018), in which they spend an increasing amount of time. This is particularly true of teenagers, with both private ownership of digital technology and the amount of time children spend in their bedrooms increasing with age (Bacon, 2018), aligning with research that shows teenagers spend less time outside compared to children of a younger age (Bornat and Shaw, 2019; Carver *et al.*, 2013; Cleland *et al.*, 2010; Dallimore, 2019; Dodd *et al.*, 2021a; Loebach *et al.*, 2021).

For children, bedrooms are typically multi-functional spaces, with children tending to spend more time in them than adults (Adcock, 2016). In addition to sleeping, bedrooms are places for playing and hanging out, for entertaining friends and having sleepovers, for relaxation, for homework, for 'getting ready' and 'beautification' (Bacon, 2018; Lincoln, 2016). Bedrooms also provide children with a place to gather, store and display their material possessions and personal belongings (Adcock, 2016; Bacon, 2018; Lincoln, 2016), with bedrooms often reflecting consumer and popular culture (Adcock, 2016).[154]

Whilst children's bedrooms occupy space within homes and therefore remain subject to adult administration and regulation, they are often the first and perhaps only spaces that children can call their own, providing a greater sense of ownership and more privacy than other areas of the home (Adcock, 2016; Bacon, 2018). Children's use of their bedrooms is continuously negotiated but these can also be spaces where children may avoid direct adult supervision, control and intrusion, escaping nagging, chores or family conflict, or, for example, listening to music not approved of by parents (Bacon, 2018).

Children are often afforded some degree of control in terms of the design and decoration of their bedrooms, with children making their bedrooms meaningful to them, often in very small ways (Lincoln, 2016). The bedrooms of younger and older children tend to be 'visually distinct and serve different purposes' (Adcock, 2016, p. 403). For young children the bedroom may primarily be a space for play and toy-storage, with decoration often associated with early childhood imagery. As children grow older these spaces take on new meanings, becoming more personalised and private (sometimes heavily guarded by their occupants), with older children often renovating the appearance of their bedrooms, transforming them through the use of multimedia, including music (Lincoln, 2016). The content and appearance of bedrooms can be highly significant for older children, with the appearance of these spaces continually evolving to reflect the changing interests and emerging identities of their inhabitants (Adcock, 2016; Lincoln, 2016). Bedrooms provide places for children to 'be themselves' whilst also experimenting with and expressing their identity within a relatively private context (Bacon, 2018). In this sense, bedrooms can provide a refuge, a place of retreat and recuperation, where children take time out from other people (Bacon,

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[154] Photographer James Mollison highlights this beautifully in his Where Children Sleep exhibition of 56 diptychs of children from around the world and their bedrooms.

2018; Lincoln, 2016). However, this private bedroom culture may also be made more public through the internet, with girls in particular engaging in 'virtual bedroom culture' beyond the physical boundaries of domestic space, creating social media profiles that reflect and extend the ways they design and use their bedrooms (Lincoln, 2016; Loebenberg, 2013).

'Consumerism, individualism, globalisation, patriarchy and the generational ordering of society all shape what happens in this seemingly very "micro" and local space. Institutionalised norms and social divisions linked to gender, age, birth order and social class also help to structure and contextualise children's experiences and use of bedroom space' (Bacon, 2018, p. 102).

There are of course children who do not have access to a bedroom and therefore cannot engage in these bedroom cultures in the same ways as other children. In March 2024, 1,740 families with children were in temporary accommodation in Wales (Welsh Government, 2024), and 2.2% of households in Wales were living in overcrowded accommodation in 2021 (ONS, 2023). Pyer and Tucker (2017), researching with teenage wheelchair users in England exploring their out of school play preferences and experiences, found that what were often seen to be suitable adaptations to the physical environment of family homes routinely failed to meet these children's access requirements. This included teenagers not being able to access private bedroom space without adult support (Pyer and Tucker, 2017). Another example is where a family computer with gaming capabilities was kept upstairs where other siblings could use it in relative privacy, while the wheelchair users only had access to a school given computer downstairs that denied access to their preferred online sites for leisure (Pyer, 2016). Such difficulties are however countered by other examples of teenage wheelchair users and parents working together to open up similar opportunities, such as the use of an office chair with wheels and the rearrangement of other furniture, enabling greater freedom of movement around the home (Pyer, 2016).

4.5.5 Gardens

For those children who have them, private gardens are important places for their outdoor activities. Despite this, few studies have investigated children's everyday practices in these spaces. One exception is the exploration by Arvidsen *et al*. (2020) of children's 'abundant' uses of trampolines in their private gardens, which illustrates the multiple reasons for both the attraction of trampolines and why garden spaces like these matter to children. The children involved in the research were reported as generally having freedom to roam and play without adult accompaniment. Even so, trampolines in private gardens were the single most referred to 'favourite everyday outdoor place' and many children's 'default go-to outdoor place' (Arvidsen *et al*., 2020, pp. 316-317). The attraction of trampolines was in part due to the immediacy of access from their homes (not even needing to put on shoes to get there) and the associated convenience of household amenities including toilets, food and drink and access to Wi-Fi (Arvidsen *et al*., 2020). In addition, gardens remained within the perceived secure confines of homes thereby negating concerns about children's safety in the public realm. However, whilst allowing for ongoing, intermittent interactions with parents and carers, the fact that they were outside meant the trampolines offered a relatively adult-free space:

'Outdoors the children experience both the possibility to escape imposed tasks and social relations, and the freedom to pursue activities and ways of being together of their own choosing' (Arvidsen *et al*., 2020, p. 317).

The embodied playfulness of children and the materiality of trampolines is then entangled with meaningful and joyful experiences emerging from the interactions between children, their trampolines and other things and people at hand (Arvidsen *et al.*, 2020). Children's multiple ways of using trampolines go far beyond just trampolining, including vigorous jumping and practising of skills, ball based games, hanging out doing 'trampoline'n'talk', making videos of each other, reading, homework, and doing nothing. For these children, garden trampolines were experienced as social spaces with an attraction that appealed across gender and age. Whilst children's social interactions took many forms, they often revolved around the embodied connection of sharing thrills and excitement together, with the materiality of the trampolines and children's skilled practice expanding the range of possibilities:

'the materiality of the trampoline (and their skilled practice) allows the children to negotiate the usual constraints of gravity and the consequences of hitting other bodies. Hence, the yielding canvas both provides amplification of the energy invested by the children and a soft landing-site, and the surrounding net contains the energy within a barrier and provides the children with a feeling of safety (and prevents them from falling off the trampoline)' (Arvidsen *et al.*, 2020, p. 319).

In this sense, the trampolines provide spaces where children can create, for themselves, a sense of uncertainty, disequilibrium and disorientation within the relative safety of the trampoline. As the authors are careful to say, whilst trampolines appeal to many if not most children, some children can 'feel out-of-place' in a trampoline due to a perceived lack of appropriate skills (Arvidsen *et al.*, 2020). Furthermore, not all children will have access to a trampoline or even a space to put one.

According to an Office for National Statistics analysis of Ordnance Survey map data, one in eight households in the UK does not have access to a private or shared garden (Office for National Statistics, 2020a), with homes in the poorest areas of England also, on average, having less than a third of the garden space of homes in the wealthiest areas (McIntyre and Gayle, 2020). Black people are also reported as being four times more likely to have no outdoor space at home compared to white people (Office for National Statistics, 2020a). The areas where people are least likely to have private gardens are also those reported as having better access to public parks, with people living in the most economically poor areas reportedly twice as likely to live within five minutes' walk of a public park (Office for National Statistics, 2020a). However, whilst it may be reasonable to assume that the presence of a private garden might indicate use, the same cannot be said for public parks, with many other factors influencing children's capability to access local parks. This can include access difficulties, spaces being overcrowded due to serving greater number of people, being of poor quality and/or poorly maintained, vandalism and fear of anti-social behaviour and crime (Cronin-de-Chavez *et al.*, 2019).

4.6 Playing in digital spaces

In this section, following Oldenburg's framing of the first, second and third places of childhood, we position 'playing in digital spaces' as somewhere in between, a place that straddles the boundaries of home, childhood institutions and their obligations (such as homework) and the public realm.[155] Spatial metaphors have become commonplace in talking about the internet (Graham, 2013), but as digital devices become more entangled in everyday life, the boundaries between online and offline become increasingly blurred (Dekavalla, 2021; Potter and Cowan, 2020). In addition, when playing in such digital spaces children simultaneously occupy space both in the digital realm and the physical world: 'a gameplayer's body is physically present in front of a screen, but his or her sense of presence moves beyond the corporeal to encompass the virtual environment' (Marsh, 2017, p. 6; see also Bailey, 2021). In this sense, children's play with digital devices also takes place somewhere in the physical world and, despite developments in mobile digital technologies, this continues to predominantly be the home (Chaudron *et al*., 2018a; Grimes, 2021; Marsh *et al*., 2020; Willet, 2017), particularly for children. Many children rely on home Wi-Fi networks due to costs associated with mobile data (Livingstone *et al*., 2017), although these patterns are changing over time and as children get older. Furthermore, whilst children's use of digital technologies is not confined to the home and play 'on the go' is also frequently digital in nature (Marsh *et al*., 2020), these digital devices are brought out from within the home (Arvidsen and Beames, 2019; Wales *et al*, 2021; Waygood *et al*., 2020), and children are largely dependent on parents/carers providing them with access to such devices (Blum-Ross *et al*., 2018; Colvert, 2021; Willet, 2017).

In many ways, further technological developments in the twenty-first century have transformed children's childhoods and the ways in which children play, with many children in the minority world being of a generation that have never known life without digital technologies (Arnott *et al*., 2019; Blum-Ross *et al*., 2018). Children are immersed in and exposed to the digital world from a very early age. Images of babies are shared across social media, and they are involved in online calls with family members, meaning children under the age of two already have digital footprints. Toddlers take great pleasure in interacting with and navigating digital screens, learning quickly by observing and mirroring the behaviour of others. And, by the time they reach school age many children are already avid users of the internet (Chaudron *et al*., 2018a; Marsh, 2016; Marsh *et al*., 2016, 2019). Consequently, children transition between physical and virtual worlds fluidly (Marsh *et al*., 2016), and what might once have been seen as private gaming has become increasingly public through children's engagement with others in online spaces and mobile devices making children's play with digital technologies more visible in the public realm (Willett, 2017).

Children's play with digital technologies now flows between online and offline and across the boundaries of home, school and the public realm, producing what Marsh *et al*. (2020, p. 4) refer to as a 'digital ecology of children's play'. Many children's online and offline lives are now so heavily intertwined that their separation becomes artificial (Chaudron *et al*., 2017; Cowan *et al*., 2021; Lincoln, 2016; Livingstone *et al*., 2017; Marsh, 2016; Marsh *et al*., 2020; Smith and Dunkley, 2018; Willet, 2017). Digital developments since the early 2000s mean that devices have become increasingly mobile, with a growth in virtual worlds, social media, digitally connected toys, virtual and augmented reality, and digital technologies embedded into outdoor environments (Colvert, 2021; Marsh, 2016; Marsh *et al*., 2020; Smith and Dunkley, 2018). Again, following a tradition of children drawing on popular culture in their play, the extent to which media content, digital devices and online activities have become woven into the fabric of children's everyday lives, inevitably means that these experiences spill over into children's play in other contexts (Colvert, 2021; Marsh, 2016; Potter and Cowan, 2020). Examples include young children pretending non-digital objects are smart phones (Marsh *et al*., 2020) or recreating online games in their off-line and non-digital play (Colvert, 2021; Cowan *et al*., 2021; Potter and Cowan, 2020).

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[155] In chapter 3, children's digital spaces have been conceptualised as third space in order to use aspects of third place theories to review the literature on how networked digital play supports children's wellbeing.

Despite many adult concerns to the contrary, research studies have repeatedly revealed that whilst digital technologies may be an omnipresent feature of many contemporary childhoods, this is not to the exclusion of other forms of play and many children continue to have varied play lives (Chaudron *et al*., 2018a; Marsh *et al*., 2020). However, the pervasive nature of such technology means that it influences many more aspects of children's lives, including much of their play (Colvert, 2021; Marsh, 2020; Potter and Cowan, 2020; Ruckenstein, 2013). Many aspects of these developments have been beneficial to children, but others may have not (Colvert, 2021).[156] Whilst the online world opens up new possibilities for play there are also 'growing concerns about the emergence of new or hidden forms of exploitation and harm – emotionally, psychologically and financially' (Verdoodt *et al*., 2021, p. 497), with implications for children's privacy, safety and health (Blum-Ross, 2018; Livingstone and Stoilova, 2021; Livingstone *et al*., 2018; UN Committee on the Rights of the Child, 2021). Research exploring intra-actions of children, digital and non-digital worlds offers opportunities to consider what the role of adults might be in 'facilitating these entanglements' (Marsh, 2017, p. 6; also, Smith and Dunkley, 2018).[157]

Like other aspects of children's play, children's opportunities for play with digital devices are shaped by a multitude of influencing factors and a myriad of stakeholders beyond children themselves, with arrangements and encounters between these diverse actors serving to open up or close down possibilities for playing (Colvert, 2021). This includes children's access to digital devices and the internet, the form and functions of digital products and services, the people who design digital technologies and their commercial concerns, governmental and institutional interests, friends, family, social media influencers, social and cultural practices, as well as age, dis/ability, gender, ethnicity and class (Colvert, 2021). Colvert (2021, p. 3) uses the metaphor of a kaleidoscope to capture how shifting and intersecting factors associated with different people, products and places shape children's opportunities for play in the digital realm, with 'every shake of the kaleidoscope remix[ing] these factors generating new patterns and possibilities'.

4.6.1 The attractions of digital technologies for children

The Digital Futures Commission's work on children's play in a digital world has analysed the intersection of the concept of free play and where these qualities can be seen or are absent in children's digital play lives, making recommendations for designers and developers of digital products and services on how to incorporate the principles of free play (Livingstone and Potong, 2021).[158] Their research found that 'most play with digital technologies can be categorised as free play if it is driven by the child's intrinsic motivations and supports children's agency rather than being insisted upon by adults for instrumental purposes, such as to further educational aims' (Colvert, 2021, p. 13).

Several research studies have revealed the multitude of ways in which digital devices and their associated digital spaces provide for the qualities and characteristics of children's play (Chaudron *et al*., 2018a; Colvert, 2021; Marsh *et al*., 2016, 2020; Ruckenstein, 2013; Verdoodt *et al*., 2021; Willet, 2017), thereby providing insights into why these technologies are so attractive to so many children (and other people). In short, these digital technologies support children's aims, by providing for their playful disposition and exploiting their desires for connections with other people (Ruckenstein, 2013).

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[156] The relationship between children's digital play and their wellbeing is discussed throughout chapter 3, and particularly in section 3.11.4.

[157] Policy responses to the harms children face online are discussed in chapter 2, section 2.3.6.

[158] The work of the Digital Futures Commission is also discussed in chapter 2, section 2.3.6.

Variability and adaptability

Children's play with digital devices 'remains fundamentally inventive and adaptable' (Loebenberg, 2013, p. 119). One of the most attractive features of digital technologies for children is the eclectic range of platforms and games, which offer up a seemingly endless myriad of possibilities for playing in imaginative ways (Loebenberg, 2013). In particular, the increasing adaptability and responsiveness of digital products and services support children's open-ended play by enabling them to co-create digital play spaces (Colvert, 2021). Such qualities help to explain the attractiveness of virtual worlds like Roblox, Fortnite and Minecraft, as well as social networking apps like Snapchat, Instagram and TikTok, all of which are particularly popular in the UK (CHILDWISE, 2020; Marsh *et al*., 2020). These are places in which children can experience a high degree of agency, manipulating their surroundings to form alternative spatial realities, actualising their creative aspirations, and expanding their 'everyday aims and fantasies' (Ruckenstein, 2013, p. 483).

In many ways, children's play with digital devices reflects traditional accounts of children playing, albeit transformed in a digital context (Marsh *et al*., 2016). Children continue to make up, design, build and play games in the digital realm (Marsh *et al*., 2020). They create their own avatars, playing with gender, age, skin colour, hair styles and clothing (Colvert, 2021; Marsh *et al*., 2020) – what might be seen as a digital and highly developed form of dressing up. Children 'hang out' on the internet as they might do outside (Ruckenstein, 2013) and chat via social media (Marsh *et al*., 2019). They banter and make fun of each other using funny photo filters (Marsh *et al*., 2020), and ask nonsense questions of smart assistance devices (Blum-Ross *et al*., 2018). They make up and learn new dances, sharing videos of their attempts with others online (Colvert, 2021). They seek out the thrill of taking risks and the satisfaction that comes from accomplishment, disengaging if they find games too demanding or not challenging enough (Marsh *et al*., 2020). Children also subvert or push the boundaries of adult controls, with younger children accessing services intended for those who are older or turning accounts public when parents wish them to be private (Colvert, 2021). Marsh *et al*. (2020, p. 97) also suggest that children's use of YouTube, 'the brand that is most firmly embedded in the online playscapes of children', reflects folkloric practices of sharing challenges and pranks, stories, myths and legends. Video calling apps are often also used to play traditional games (Marsh *et al*., 2020), and children's video production can be seen as an extension of their pretend play (Loebenburg, 2013).

The variability and adaptability of these digital spaces makes them appealing to a diverse range of players. For example, digital spaces can be adapted to suit the sensory preferences of neurodiverse children, enabling them to exert control over their environment in such a way as to make those spaces easier to cope with (Colvert, 2021). This might be as simple as turning down the volume to avoid over stimulation or being able to find a space that they feel comfortable playing in (Colvert, 2021). Colvert (2021) shares an account from Ringland *et al*. (2017) of autistic children playing in Autcraft, a semi-private server on Minecraft, in which children gather for a digital fireworks display created by one of the players, reported as an important event for Autcraft community members, many of whom would find the sensory experience of attending a physical-world fireworks display difficult.

The possibilities for playing with digital devices have further increased due to the popularity of 'smart' and 'connected' toys (Marsh, 2017); 'smart' toys being those with embedded electronic features that enable the toy to interact with its user, and 'connected' toys being those that communicate with remote servers via the internet, which in turn collect data and control the responses of the toy (Chaudron *et al*., 2017). As Colvert (2021, p. 42) suggests, whilst children often form strong emotional attachments to their favourite toys, these new digital technologies have 'made it possible for toys to be responsive to children's play in innovative ways', further blurring the lines between the digital and non-digital and enhancing the intra-active nature of these more-than-human devices.

Exploring such intra-actions, Marsh (2017, p. 15) provides detailed accounts of children moving seamlessly across virtual and material domains, interweaving the 'material and immaterial' in their 'imaginatively conceived' play worlds. This includes children playing with physical non-digital toys and other objects alongside connected toys and their associated digital applications. These multimodal entanglements are highly dynamic as children move about, playing with different toys, responding to prompts from digital devices but also ignoring others and focusing their attention elsewhere. Children's play with smart home assistants, widespread and popular playthings in the UK, again emerges from these entangled encounters, with accounts of children 'asking such assistants to answer absurd questions, tell jokes and even count to 10 while they played hide-and-seek' (Marsh *et al.*, 2020, p. 96).

Access to other people to play with

Another attraction of digital technologies is the availability of other people to play with, and 'the capacities of mobile phones and games consoles to connect to other people, friends, and parents are a source of endless interest and joy for the children' (Ruckenstein, 2013, p. 482). Online social networks enable children to maintain access to and spend time with their friends even when they cannot be physically together (Chaudron *et al.*, 2017; Colvert, 2021). This includes maintaining contact with friends and family who are physically far away (Blum-Ross *et al.*, 2018; Marsh *et al.*, 2020; Willet, 2017). Children meet up online and participate in player communities, centred around their favourite games and digital platforms (Colvert, 2021). These are platforms for sociality, with digital communication now seen as essential to children's social participation (Blum-Ross *et al.*, 2018) and a significant proportion of children's interactions outside of school now taking place online (Ruckenstein, 2013), even if most children would still prefer to meet in person (Brockman *et al.*, 2011; Children's Commissioner for England, 2021; Children's Commissioner for Wales, 2018; Dallimore, 2019; HAPPEN, 2018).

Of particular importance for older children, these are often spaces away from the direct supervision of adults (Colvert, 2021). Online gaming networks can bring young people together from across the globe and from a range of different backgrounds, countering narratives related to such games being anti-social and isolating (Colvert, 2021). Yau and Reich (2018) find that online interactions are grounded in the same core qualities of friendship present in children's offline attachments. For those who find face-to-face interactions more difficult, digital interfaces can provide alternative ways of playing with others, which some children may find preferable to playing in person (Ringland *et al.*, 2016). However, when online, children most often play and chat with their existing friends (Marsh *et al.*, 2020; Ofcom, 2021), with only a quarter of children aged five to fifteen reported as playing with people not known to them already (Ofcom, 2021). Parents have reported that their young children are more likely to play with unknown others in the public realm rather than online (Marsh *et al.*, 2020). Whilst children's presence online may become more public as they grow older, and older children are more likely to play with unknown others via games such as Fortnite and Roblox (Marsh *et al.*, 2020), online spaces are not necessarily easy places in which to meet and make new friends (Colvert, 2021). Digital technologies have transformed young people's communication in many ways, but the conventions of online interactions must be learnt and they continue to have implications in the physical world (Colvert, 2021).

'As teens struggle to make sense of different social contexts and present themselves appropriately, one thing becomes clear: the internet has not evolved into an idyllic zone in which people are free from the limitations of the embodied world. Teens are struggling to make sense of who they are and how they fit into society in an environment in which contexts are networked and collapsed, audiences are invisible, and anything they say or do can easily be taken out of context' (Boyd, 2014, cited in Colvert, 2021, p. 46)

Convenience and ease of use

Another significant factor in children's play with digital devices is their accessibility and ease of use in more locations, with internet use and digital devices occupying ever more time (Livingstone, 2017). Marsh *et al*. (2020) report that in the UK, children have access to a range of digital technologies at home and elsewhere, with the majority having access to tablets (94%), smartphones (84%), laptops (72%) and games consoles (78%), as well as standard and smart TVs. In contrast to concerns about children's opportunities to play outside, very few parents in the UK felt that their children were not spending enough time using digital technology (Marsh *et al*., 2020).

Smartphones are increasingly becoming a universal device, more common than game consoles and personal computers (Chaudron *et al*., 2018a), and more children are accessing online content from an earlier age; a growing trend since the launch of Apple's iPad in 2010, with most (but not all) young children finding touch screen technology relatively easy to master (Marsh *et al*., 2016). In 2020, CHILDWISE reported big increases in the numbers of five- to ten-year-olds owning mobile phones with 53% of children doing so by age seven, with mobile phones becoming more common than tablets. More children aged five to sixteen (73%) are then using their phones to access the internet, with daily internet use amongst children aged five to sixteen reportedly averaging 3.4 hours a day, with one in four children spending four to six hours online daily. Children in this age group are increasingly accessing the internet from their own bedrooms, as well as 45% of children going online when out and about (with this figure continuing to increase with age). As a consequence of this trend, CHILDWISE (2020) reports that digital content 'is likely to get shorter and shorter to fit with this way of viewing'.

Nearly all children have access to the internet at home and the amount of time children spend online continues to rise (Livingstone *et al*., 2017). Ofcom (2022) reports that the UK's digital divide narrowed during the pandemic with more people going online to cope with the constraints of lockdown, accelerating the adoption of digital services and reducing the percentage of households without internet access from 11% in March 2020 to 6% in December 2021. Fewer than 1% of school aged children did not have access to the internet at home in 2021, although 2% relied on mobile internet access only and 17% did not have access to a suitable device for their online home-learning (Ofcom, 2021). As is so often the case, this disproportionately affects children from the most financially vulnerable households (Livingstone *et al*., 2017).[159] Access to digital devices has been reported as changing little by socioeconomic group, although children in poorer households have been reported as being more likely to own a device personally (Marsh *et al*., 2020), but less likely to say there were lots of good things for them to do online, as well as reporting having fewer digital skills compared to their more affluent peers (Livingstone, 2017).

In 2017, playing games was reported as the most common reason for seven- and eight-year-olds going online, followed by watching video clips, with social networking least common (below messaging friends and family). These reasons changed significantly as children got older with playing games reducing as a reason from ages nine and ten onwards but listening to music, messaging friends and family, and social networking, together with watching video clips, increasing to become the most common reasons for teenagers (CHILDWISE, 2017, cited in Livingstone *et al*., 2017).

Although many young children are users of digital devices and the internet, age continues to be a determining factor, with the prevalence of internet use, the amount of time children spend online, and the range of activities they undertake online all increasing with age (Livingstone *et al*., 2017), a notable reverse of trends in children spending time outside (Cleland *et al*., 2010; Dodd *et al*., 2021a; Loebach *et al*., 2021).

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[159] Whilst the percentage of those without easy internet access appears small, this still represents a significant number of children and families. The question of digital exclusion is discussed in chapter 2, section 2.3.1 and 2.3.6.

Gender also remains a significant influencing factor in the ways that children play with digital devices, although gender is reported as making less difference in terms of access and use overall (Livingstone *et al.*, 2017). Gender differences are perhaps most pronounced in relation to 'gaming', with more boys owning games consoles (Marsh *et al.*, 2020) and using gaming as a way of connecting with their friends (Ofcom, 2021), resulting in boys continuing to use the internet more than girls (CHILDWISE, 2020). However, in recent years there has been an increase in 'girl gamers', with almost half of girls aged five to fifteen playing games online, with Roblox being particularly popular amongst girls (Marsh *et al.*, 2020; Ofcom, 2021). Ruckenstein (2013, p. 478) argues that digital devices, and the online communities and virtual worlds they provide access to:

'can be understood as meeting a need that has arisen as a result of … children's everyday lives become more controlled and spatially restricted … children who spend their leisure time inside can get "out" and expand their spatial territories in a very concrete way through online services'.

In this way, digital platforms enable children to move beyond the spatial restrictions of home and the public realm, opening up new social and spatial opportunities for children (Blum-Ross *et al.*, 2018; Ruckenstein, 2013). Virtual worlds, such as Roblox, provide children with a near boundless alternative reality within which they may experience a greater sense of freedom than in other aspects of their lives (Colvert, 2021). Individualised digital technologies further expand children's sense of autonomy from other family members, enabling attachments to a vast number of peers with similar interests, as well as a way of entertaining themselves when there is little else to do (Chaudron *et al.*, 2018a; Willet, 2017). It is also of interest to note that children's use of digital devices is influenced by weather and season, tending to increase in colder and darker months and when raining, that is, when it is more difficult for children to be with their friends in person (Ruckenstein, 2013).

4.6.2 Parental permission for play with digital devices

There are many parallels between children's play with digital devices and their opportunities to play in the wider public realm, with adults continuing to define the rules-of-use and the boundaries within which children can play in digital spaces (Colvert, 2021). As with permission for 'playing out', parental controls are often negotiated (Chaudron *et al.*, 2018b; Ruckenstein, 2013) and subject to ongoing tensions between children being afforded freedom, concerns for their online safety and the consequence of too much screen time (Chaudron *et al.*, 2018b; Colvert, 2021; Marsh *et al.*, 2019). These concerns, and the ways in which parents mediate their children's play with digital devices are culturally framed (Marsh *et al.*, 2020), based on personal beliefs and influenced by public discourse, which is often polarised in terms of the potential benefits and risks of online spaces (Willett, 2017). Significant differences have also been reported between adult perceptions of children's play with digital devices and children's actual experiences, with greater parental support for those forms of digital play that align with adult perceptions of time well spent (Willett, 2017). Concerns about safety in the digital realm are also expressed more frequently by adults than children (Marsh *et al.*, 2020).

There is also evidence of parents providing children with graduated freedoms as their age and perceived competence increases, including providing individualised technologies at a particular age but also allowing children to access more digital spaces as parental confidence grows in children's ability to navigate online risks and make 'good' judgements (Willett, 2017). However, some of this is also done for pragmatic reasons with parents purchasing new devices for children to avoid difficulties associated with having to share their own: 'new gaming devices allowed both parents and children *space* in terms of access to technology and data storage space and *privacy* in relation to other members of the household on shared devices' (Willett, 2017, p. 17).

Many young people and adults recognise the inherent benefits of using digital devices and going online, with parents acknowledging children's happiness when using such devices and the sense of satisfaction and empowerment they exhibit when mastering particular technologies (Marsh *et al.*, 2020; Robertson, 2021). However, for many adults, what is seen as an increasingly indoor, sedentary and spatially constrained childhood jars with widely held notions of childhood as active and outdoors, where children have freedom to roam (Smith and Dunkley, 2018). Consequently, digital technologies are often held responsible for enticing more children to stay indoors (Smith and Dunkley, 2018; Willett, 2017), with parents exhibiting negative attitudes towards digital technologies characterised as inactive or less social (Marsh *et al.*, 2020). Such an approach potentially overlooks other factors that constrain children's ability to play out, as well as children's active and social involvement in digital spaces (Ruckenstein, 2013), and the playing that children's digital viewing habits may stimulate (Marsh *et al.*, 2020).

Many parents also express anxiety about children's safety online (Willett, 2017), and whilst children's internet use is reported as broadly positive (Livingstone *et al.*, 2017) there are concerns associated with cyberbullying, online violence, pornography, sexting and sexual harassment, sexual solicitation, online grooming and sexual exploitation, radicalisation, hate crime, the impact of social media influencers and children's privacy (Livingstone *et al.*, 2017; Colvert, 2021). However, Livingstone *et al.* (2017, p. 20) suggest it is increasingly accepted that 'as with children riding a bicycle or learning to swim, using the internet will carry some risk of harm'; the role of adults not being to eliminate all risk, but to manage risks so that children are protected from severe risks of serious harm, whilst continuing to benefit from all that the internet has to offer (Livingstone *et al.*, 2017). In addition, parents voice fears about the possibility of addiction to video games (Robertson, 2021).[160]

For many parents regulating children's access to and use of digital devices is an ongoing challenge (Blum-Ross *et al.*, 2018; Chaudron *et al.*, 2018b), with an acceptance among most that the pervasive presence of digital media is difficult to resist (Zaman *et al.*, 2016). However, most parents have protective strategies that limit or control children's access in some way (Chaudron *et al.*, 2018b; Ofcom, 2021). Parents who have more positive perceptions and greater knowledge and confidence with such technologies, tend to restrict children the least (Chaudron *et al.*, 2018b; Robertson, 2021). Although many parents of the current generation are dealing with digital technologies that they themselves did not grow up with (Zaman *et al.*, 2016), many parents are also avid gamers and users of digital technology (Robertson, 2021).

Zaman *et al.* (2016), building on earlier studies into parents' mediation of children's television viewing, identify a range of approaches reaffirmed by other similar reports (Blum-Ross *et al.*, 2018; Chaudron *et al.*, 2018b). One approach is *restrictive mediation* with parents imposing time, device, content, location and purchasing limitations on children, with such allowances and constraints also used as rewards or punishments to regulate children's behaviour. *Active and instructive mediation* involves monitoring of what children are accessing and doing online, with varying levels of intervention dependent on age, and associated discussions about the appropriateness of content, together with what and how much is allowed. *Co-use* refers to occasions where children and parents use digital devices together, with parents acting as helpers, playmates and active spectators; often driven by a common interest and tending to be favoured by those with more positive perceptions of such technologies. In some situations of co-use, parents become the novices, being taught by children, thereby upending usual relations of knowledge and competence (Robertson, 2021). There are also technical restrictions built into software, including time controls, content filters, and tracking features (Blum-Ross *et al.*, 2018). However, research suggests limited use of these by parents, with children often managing to bypass them (Chaudron *et al.*, 2018a, 2018b;

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[160] The issue of online risks and safety is discussed in chapter 2, sections 2.3.1 and 2.3.6. The issue of addiction is addressed in section 2.3.1 and in chapter 3, section 3.7.4.

Marsh *et al*., 2019), sometimes with adult knowledge and support (Blum-Ross *et al*., 2018; Livingstone *et al*., 2017). Ofcom (2021) reports that more than 40% of children are using social media platforms before they meet the minimum prescribed age.

The most successful approaches to parental mediation are reported as those that seek to balance risks and benefits, involving discussion, compromise, and collaborative activities (Marsh *et al*., 2019; Robertson, 2021), with more prohibitive approaches often resulting in frustration and conflict rather than the desired reduction in risk (Blum-Ross *et al.,* 2018; Colvert, 2021). One notable limitation of rules is that adults themselves break them (Blum-Ross *et al*., 2018). Whilst striking a balance between protection and participation is not straightforward (Verdoodt *et al*., 2021), studies suggest that in general parents of young children do not feel that they are 'at risk' online (Chaudron *et al*., 2018b). Furthermore, children themselves are reported as taking relatively few risks online (Livingstone, 2017), as well as finding ways to mitigate and manage these risks (Blum-Ross *et al*., 2018). This includes children self-censoring online (Loebenberg, 2013), with few sharing personal information or photos that they may later regret, and most only making contact with people they already know (Livingstone *et al*., 2017). Nevertheless, some children also play with these risks, for example flirting with the attention they may get online, part of the fun being that there is an audience, albeit often a small one where younger children are concerned (Loebenberg, 2013). However, unwanted content remains a problem across platforms (Blum-Ross *et al*., 2018), and whilst more children may be aware of online risks than have actually encountered such problems, this itself 'has consequences for children's perception of the online world, potentially undermining their confidence to explore freely online' (Livingstone *et al*., 2017, p. 89).[161]

4.6.3 Corporate interests and professional players

'There are some joyful signs: immersive spaces in which children build worlds that reflect their imagination and circumstances, sensory interactions that include movement in the real world, open-ended play in which children code their own in-game experience – and a wonderful embracing of social play, which in the digital world can infinitely extend social boundaries or find friends for the socially isolated … Digital technology is ideally suited to create inclusive and creative environments in which to play. But there are persistent glimpses of rapacious data collection, poor safety, commercial grooming and design strategies that entrap' (Kidron, 2021c, p. 3).

In many ways, children are actively involved as co-creators of the digital spaces they now play in, with the internet enabling children to become both consumers and producers in the digital realm (Arnott *et al*., 2019; Grimes, 2015, 2021; Livingstone *et al*., 2017). However, it is important to remember that for the most part these are also commercial spaces, developed by adults whose 'commercial interests exert significant influence over the design and operation of the digital products that children use for fun' (Colvert, 2021, p. 26; see also Verdoodt *et al*., 2021). Within the digital realm, children have significant economic influence with corporations recognising the financial value of children's sociality and children's desires for digital technologies 'fuelling an expanding field of global commerce in which new forms of production, distribution and consumption are being developed' (Ruckenstein, 2013, p. 476). Children's presence and participation is essential to many digital companies' commercial success, and in response corporations have developed 'a profound understanding of children's sociality' (Ruckenstein, 2013, p. 480), supported by vast amounts of data about their users (Colvert, 2021).

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[161] See chapter 2, section 2.3.6 for more on policy responses to address online risks and harms.

'[I]t is economically beneficial for companies to take into account social relations and promote them, as these attract children and young people, encouraging them to consume the companies' products and services and to become hooked on them. Sociality between children is inscribed in the companies' business models, making a childhood free of commerciality an increasingly difficult ideal to achieve' (Ruckenstein, 2013, p. 478).

To some degree these digital spaces can be understood as child-centred in that they enable children to actively participate in the creation of their digital playgrounds (Ruckenstein, 2013). Furthermore, whilst digital spaces may be designed to shape children's play in particular ways, 'users can, of course, resist producers' design features' and there are no guarantees children will respond in expected ways (Marsh, 2017, p. 19; see also Grimes, 2015). However, despite being 'early adopters and enthusiastic participants' (Kidron, 2020, p. 3), children, their rights and their wellbeing often remain marginalised in the design and development of digital products and services, leading to corporate practices and the use of digital features that may be harmful to children, as well as potentially interfering with the quality of children's digital play experiences (Colvert, 2021).

One example of such corporate practices is features and content that are intended to increase the 'stickiness' of digital brands, a strategy used by developers that encourages users to continue consuming their products (Colvert, 2021; Loebenberg, 2013; Marsh, 2014; Marsh 2017). Many of the major titles currently played by children are at least partly free to play or require a relatively low initial purchase (Verdoodt *et al.*, 2021). This allows the game to 'create a buzz in the playground and build a large audience before introducing the hurdle of payment' (Robertson, 2021, p. 60, talking about Fortnite). Such a business model is based on periodic spending, with the frequent release of add-ons, upgrades and new editions alongside pervasive marketing, including in-app adverts and purchases, all of which encourage children to spend more money (Colvert, 2021; Marsh, 2017). 'Loot boxes', virtual items that can be purchased or unlocked using real currency and which then provide players with a random mystery item (for example a weapon or feature for their avatar), were previously commonplace but their use has reduced following intense criticism both within and outside the industry that sees the practice as an unregulated form of gambling (Colvert, 2021; Robertson, 2021; Verdoodt *et al.*, 2021). It is now more common for players to purchase, and then spend, a form of in game currency (Verdoodt *et al.*, 2021), for example Robux in Roblox.

As children play online, they are also (knowingly or otherwise) participating in a 'data economy' providing corporations with vast amounts of data regarding their interests, habits, motivations and locations (Colvert, 2021; Grimes, 2021), often with a lack of transparency over what data is being collected and how it is used (Blum-Ross *et al.*, 2018). Such information is included in the privacy statements of companies, but these are rarely read by users and children may not fully appreciate the consequences of this data sharing and other security issues (Chaudron *et al.*, 2017). Most companies claim that this data is only used to enhance the players' experience, tailoring content to meet their interests, however there are also examples of digital media companies collecting and storing highly personalised information (Colvert, 2021). These data mining practices are particularly true of free products and services, as is in-game advertising, both of which are more likely to impact on the experiences of children from lower income households, who are less likely to pay for premium services (Chaudron *et al.*, 2018a; Colvert, 2021).

'Connected' toys (referred to collectively as the 'internet of toys'), together with other internet connected domestic appliances, further increase the ubiquity of digital data sharing in children's and adults' everyday lives (Chaudron *et al.*, 2017). In the case of connected toys, this personalised data enables toys to be responsive to children, but it also allows commercial companies to monitor and analyse children's online behaviour, further personalising products, services and content, as well as improving their marketing strategies (Chaudron *et al.*, 2017). These connected toys are part of a wider datafication of childhood, where more and more aspects of

children's lives are being tracked and recorded, with associated risks for children's privacy and a normalisation of surveillance (Chaudron *et al*., 2017).

As well as raising serious ethical issues, this extensive digital surveillance brings into question how free from adult involvement children really are when playing in the digital realm (Verdoodt *et al*., 2021). There are also concerns about the opacity of algorithms and nudge techniques that enable automated decision-making that personalises the content of social media feeds, 'creating echo chambers and self-referential bubbles' and limiting users' opportunities to encounter different perspectives (Hartung, 2020, p. 4). Digital media content can also perpetuate harmful stereotypes and structural inequalities, with narrow representations of race and gender in many commercial games (Malkowski and Russworm, 2017; Marsh *et al*., 2020). Despite the players of such games becoming more diverse, the white male gamer is still seen as central to the industry (Colvert, 2021; Richard, 2017). As with other commercialised forms of playing, with these economic interests also comes the emergence of professional players and the promise of substantial financial rewards.

Esports

Esports is a major category of social/online videogaming. Verdoodt *et al*. (2021, pp. 500-501) describe Esports as 'videogames played competitively, with spectators', involving forms of playing that emerge when 'the organisational principles of traditional sports are applied to video game contexts and culture'. Video sharing and live streaming of game playing enables children to engage in broader cultural practices that originate from and build up around particular games, with gaming platforms fostering a sense of community and belonging amongst players (Verdoodt *et al*., 2021). As with traditional sports, Esports range from small-scale events between friends to massively attended, stadium style tournaments, which are then broadcast online to spectators, many of whom watch because they too want to play competitively (Verdoodt *et al*., 2021). The Esports industry was projected to generate revenues of $1.1 billion in 2020 with a global audience of 495 million, including 223 million 'enthusiasts' and a further 272 million occasional viewers (Newzoo, 2020). In that same year, and in response to lockdown conditions associated with the COVID-19 pandemic, Amazon-owned Twitch (a major platform for Esports entertainment) reported an 83% increase in hours watched, from nine billion in 2019 to seventeen billion in 2020 (Verdoodt *et al*., 2021).

As with traditional sport, major Esports events provide opportunities for diverse forms of commercialisation, including ticketing, sponsorship, branding and merchandising, with events often being hosted by game publishers. The participants of such events are rarely older than 30, with young people seen as the primary consumers of the Esports industry. With these high-profile competitions has come the emergence of professional and contracted players, earning money for themselves and others. The language used in the marketing of products has shifted from play to that of elite performance: 'players no longer "play", they "train"', with their enjoyment being displaced from the narrative of personal enjoyment and replaced with frameworks of success' (Verdoodt *et al*., 2021, p. 502). Gender divisions are also stark within the Esports industry (Loebenberg, 2018). Only a small minority of competitors are female, with the top female professional players earning around $170,000, compared to the top male professional players who earn in the region of $2.7 million (Loebenberg, 2018).

4.7 Playing in adult supervised provision

This section considers research on children's play in second places. In one sense, this is a contradiction in terms, as second places are, in Oldenburg's (1989) original conceptualisation, places of work, obligation and economic productivity. We have suggested, following Carroll *et al*. (2015), that places of obligation for children will include schools as children have an obligation to attend. The same may also be true for some out of school activities. Yet, both school and other adult supervised spaces also provide opportunities for play, which can at times perhaps imbue them with characteristics of third place. Even in schools, the clearest second place of all the non-domestic institutions of childhood, there are opportunities to carve out moments in third place, particularly during break

times. Third place therefore becomes a matter of perception and experience rather than location. This highlights the difficulty of slippery categories, and we suggest that frameworks are only useful insofar as they enable different ways to think about children's playful relationship with space. Nonetheless, the diverse research has to be organised somehow, and overall, we feel that this framework works well as long as there is room for a dynamic and fluid blurring of boundaries. To this end, we have also grouped other sites of supervised provision into this section.

4.7.1 School

School playtimes and lunchtimes present a substantial daily opportunity for children to play. Although the time allocated for primary school playtimes has reduced by 45 minutes per week since 1995 (Baines and Blatchford, 2019), they still account for around 20% to 22% of each school day (Ardelean *et al.*, 2021) or 1.2 years of a child's life in primary school in the UK (Follet, 2017). The reasons for such a reduction in time allocation include perceived poor behaviour during playtime and an increased focus on teaching and attainment linked to the growing centrality of standards and league tables (Ardelean *et al.*, 2021). Whilst these periods are important for children's play, there is 'little agreement about the value and function of breaktimes amongst school staff and policy makers and they are often taken for granted' (Baines and Blatchford, 2019, p. 15).

When asked, most children say they enjoy playtimes (Mroz and Woolner, 2015; Mulryan-Kyne, 2014), but in one substantial English survey 5% said they did not (Baines and Blatchford, 2019). In some studies, children said there were too many rules, many of which they felt limited their play unnecessarily (Baines and Blatchford, 2019; Bristow and Atkinson, 2020; Fink and Ramstetter, 2018; Thomson, 2007, 2014). Rules included areas of the play space being out of bounds during (frequent) periods of inclement weather, and instructions not to chase, or link arms, or use your coat as a blanket to sit on, or just not to play like that and to play nicely. Children were aware that mostly rules were 'don'ts' rather than 'do's'. Despite this, some children found creative and playful ways of resisting rules in ways that did not get them into too much trouble (Thomson, 2007, 2014).

Although some adults feel that children no longer know how to play (Alexander *et al.*, 2014; McNamara, 2013), research reveals a continuing rich culture of children's play in school playgrounds (Beresin, 2014; Potter and Cowan, 2020; Marsh and Willett, 2010). Such playground cultures are 'expressed through playground songs, games, rituals, naming of specific places in the playground and myriad other practices' (Ardelean *et al.*, 2021, p. 15) and absorb whatever material, cultural and social resources that are to hand, blending offline and online worlds (Potter and Cowan, 2020). Multi-modal ethnographic methods, including mapping, drawing, photography and the use of technologies such as iPads, Go-Pro cameras and sound recordings, often used by the children themselves, enable a close-up picture of the rich complexity and sophistication of children's playground choreographies. They can bring to light the myriad ways children navigate crowded spaces and keep play going, including play signals, gaze, posture, constant negotiation, call and response, cultural references and signs (for example 'truce' signs) (Potter and Cowan, 2020). These actions emerge from and blend with the physical features of the school playground and the material objects to hand to produce a different way of seeing forms of play that are sometimes considered problematic (Ardelean *et al.*, 2021).

As elsewhere, children's play in school playgrounds is affected by, emerges from, and also affects the physical, temporal and cultural ways that playgrounds are produced. As Wilson (2013, p. 630) notes: 'Not only do the material forms of the playground orientate movement and regulate bodies, but they also shape the affective capacities of the space'. Many traditional school playgrounds are designed for full and easy surveillance of children in ways that create large open spaces (Wilson, 2013). This tends to create a central space dominated by the boys who like to play football (Ndhlovu and Varea, 2018; Pearce and Bailey, 2011; Spark *et al*., 2019). Aminpour *et al*. (2020) note how many children, boys and girls, prefer smaller, in-between spaces such as edges and more natural settings that allow some cover from full exposure, although such spaces are often out of bounds (precisely because they are difficult to supervise) and poorly maintained. However, there is less a sense of football dominating playgrounds more recently (Baines and Blatchford, 2019), with some head teachers acknowledging the problem and wanting to make changes (Lester *et al*., 2011).[162]

These forces operate in intersectional ways across disability, race, gender and class (Ardelean *et al*., 2021). Such categories are useful in that they can highlight enduring and structural aspects of inequity. At the same time, they mask nuanced and complex intersectionalities that can produce multiple identities and contradictory experiences of exclusion and the dynamics of power (Kustatscher, 2016; Ringrose and Renold, 2010). The necessarily brief examples of research offered here risk eliding the differences within categories. We have grouped the following discussion into issues of disability, poverty, race and gender for ease of presentation and hope that this does not overly obscure issues of intersectionality and difference.

The arrangements of time, space and institutional practices can be particularly disabling for neurodiverse and disabled children in both mainstream and special schools. Despite overarching policies of inclusion, these arrangements and practices still serve to exclude and mark disabled children out as different (Doak, 2020; Holt, 2016). One example is how children tend to be segregated, even in special schools, thereby significantly limiting options for playmates, spaces and resources (Doak, 2020). Another related example is the scheduling of food, care and/or physiotherapy routines at the start of break times, affecting children's ability to join in with playtimes at a time that suits them (Hodge and Runswick-Cole, 2013), or meaning they enter the playground once games are in progress and so harder to join (Woolley *et al*., 2006). Access to the range of spaces and opportunities is also often experienced differently from their non-disabled counterparts, often taking longer to negotiate, leaving disabled children less time to play, fewer things to play with, at or on and with fewer play mates (Hodge and Runswick-Cole, 2013). These experiences serve, even in an inclusive mainstream school, to set these children apart from the often temporary and momentary opportunities that their ableist enabled counterparts share for social interaction (Worth, 2013). Friendships at school are important, often what children value most (Worth, 2013), and children consistently say that having someone to play with at playtime, together with a sense of belonging, is important (Aminpour *et al*., 2020; Bristow and Atkinson, 2020; Lodewyk and McNamara, 2020; McNamara, 2013; McNamara *et al*., 2015). Hodge and Runswick-Cole (2013) tell the story of Greg, an 11-year-old with a physical impairment, trying to join in a game of football, but the other children did not pass the ball to him, and in the end he withdrew and stayed in the lower playground, which was easier for him anyway because it was difficult to get up the ramp to the higher playground where the football game was taking place.

Disabled children often report feeling tired before the end of the school day because of the differently experienced length of lessons and the spatial layout of the school environment they must navigate differently from their non-disabled counterparts. Being separated in class, often with a teaching assistant or to facilitate mobility, equally limits opportunities to be with other children (Holt, 2016). Disabled children report positive experiences of friendship and inclusion in settings where the sociocultural, spatial and temporal practices of the setting have worked hard to be inclusive (Holt, 2016).

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[162] Actions to improve playtimes in schools are discussed in chapter 5, section 5.9.5.

Issues of inequality in respect of access to play in school apply across other stratifications too. Children from poorer income families may be disadvantaged in terms of accessing quality play experiences at school because schools in poorer areas tend to have breaktimes that are poorly resourced in terms of the quality of spaces for play, quality of supervision and time available for break times (McNamara *et al.*, 2015, 2017). Evidence suggests these same children need opportunities to play at school because of the limited opportunities out of school. These include a lack of play space close to their homes, difficulty in accessing quality spaces further from their homes, and living in locations with higher density traffic, higher fear of crime and higher rates of street crime than their middle and higher income counterparts, factors exacerbated by a reduction in the time available for families to play together or parents to support their children's play opportunities as a result of increased work hours over middle and higher income counterparts (Milteer *et al.*, 2012).

Research also shows differentiated experiences of school playtimes dependent on race, although there is significantly less research on this topic from the UK and much of that which is available focuses on Black children. Research has shown how the play of Black boys, particularly, is often perceived as more troublesome than similar ways of playing by white children, due both to deep seated stereotypical perceptions, rooted in colonialism, of Black children as more mature than they are and also more unruly, even animalistic (Bryan, 2020; Dancy, 2014; Dumas and Nelson, 2016; Goff *et al.*, 2014; Howard, 2021; Rosen, 2017). In addition, Black children often report feeling excluded from games (McDonnell, 2019, 2022). Racism in the playground operates in direct and also subtle ways, playing out differently for children who are multiracial, and for children of colour from different ethnicities (Howard, 2021; Saul, 2021). Equally, children's responses to exclusion and racism vary, with some children 'playing' with narratives of race so they can disrupt them (McDonnell, 2019, 2020). There is no doubt, however, of the harms of such racism on children both at the time and as they grow (Bryan, 2020; Dumas and Nelson, 2016; Pinckney *et al.*, 2019).

Stratification and intersectionality are also observable in the performances of gender in the school playground. Often, research presents this in a binary manner, identifying generalised patterns for the ways boys and girls play and how gendered forms of playing emerge from and reproduce the ongoing production of school playgrounds as gendered (Mayeza, 2017; Pawlowski *et al.*, 2015; Spark *et al.*, 2019). For example, one study shows how girls seek out enclosed spaces away from the central sports areas dominated by boys, although older girls would make ownership claims over younger girls and dominate these spaces with their forms of play even if boys were present. Girls recognised the inequity of this, with some saying they would like to play football or basketball, but felt excluded from those spaces, with older girls also expressing a lack of skill, itself exacerbated by consistent exclusion (Spark *et al.*, 2019).

In a study across 17 Danish primary schools, Pawlowski *et al.* (2015) found that initially it seemed as if children talked about their playground activities in clear binary ways in terms of how boys were physically active and girls more sedentary and social. A closer analysis, however, together with their own observations revealed much more nuanced and diverse forms of play that did include girls being active (both through playing football and through dancing and other physical forms of play) and boys engaging in a range of play forms beyond sport. Nevertheless, there was a clear hierarchy of value expressed, with skilled sports play being highly valued and 'nerdy' play less so. 'Nerds' were mostly boys who played computer games, but who felt left out because they did not fit hegemonic masculine athletic stereotypes.

4.7.2 Early years and out of school childcare

Because of the complications of different types of providers and fluctuations, it is difficult to find reliable data on how many children attend childcare provision at any given time. Across the UK, there are 13,056 registered early years settings, with 368 in Wales, 11,754 in England, 709 in Scotland and 225 in Northern Ireland. These numbers include day nurseries, nursery schools, pre-schools and children's centres but not childminders or out of school childcare (Day Nurseries UK, 2022). Broader figures including out of school childcare from a survey of English

childcare and early years providers (Department for Education, 2021) estimate 67,900 providers offering an estimated 1,674,200 places. In Wales, there are a total of 3,536 childcare settings, including childminders, creches, full and sessional day care and out of school care, offering a total of 78,495 places. Of these, 358 out of school care providers offered 14,723 places; the rest were early years providers (Care Inspectorate Wales, 2022).

The debate on the tensions between play, care and education, particularly in early years settings, is lively (Brooker, 2014, 2018; Hewes, 2014; Leggett and Newman, 2017; Loizou, 2017; Rekers and Waters-Davies, 2021; Santer *et al.*, 2007; Wood, 2010, 2014, 2019). In the UK, early years provision is situated within education services and each nation has an assessment process for monitoring children's learning and development, with varying emphases on children's learning and development through play (Council for Curriculum, Examinations and Assessment, 2018; Department for Education, 2022; Education Scotland, 2017; Welsh Government, 2015).[163]

Compared with early years childcare, research into children's play experiences in out of school childcare is limited (Holloway and Pimlott-Wilson, 2018; Horgan *et al.*, 2018; Kane, 2015; Moir and Brunker, 2021). In a similar vein, however, studies have explored the tensions between children's capability to engage in self-organised playing and the contextual constraints, which include the obligation to attend, expectations and practices of hosting organisations (sometimes, but not always, schools) and regulatory processes (Holloway and Pimlott-Wilson, 2018; Jackson, 2017; Kane *et al.*, 2013; Moir and Brunker, 2021; Smith, 2010). King and Howard (2014) found that the children they surveyed in Wales felt they had more choice in what to do in out of school clubs than they did either at home or in the school playground, suggesting that this perception could stem from the playwork approach taken by staff.

In children's own accounts of out of school care, play featured highly and was important to them, including opportunities for outdoor play (Horgan *et al.*, 2018; Moir and Brunker, 2021), with some being critical of the limited resources available and the structuring of activities (Horgan *et al.*, 2018). Friends were also important, with children enjoying their time at clubs less when their existing friends were not present (Horgan *et al.*, 2018); however, children also said that they liked playing with children of different ages (Parrott and Cohen, 2021).

4.7.3 Adult supervised out of school hours activities

A range of interrelated factors has given rise to an increase in the time children spend in adult-supervised spaces out of school hours, including fear for children's safety when playing out unsupervised (McQuade *et al.*, 2019) and changing work patterns for caregivers (Lee *et al.*, 2015; Loebach *et al.*, 2021; McQuade *et al.*, 2019). The exponential rise in organised out-of-school activities since the 1990s (Vincent and Maxwell, 2016) has followed a corresponding and dramatic decline in children's freedom of movement and outdoor play since the 1970s (Holloway and Pimlott-Wilson, 2018; Shaw *et al.*, 2012, 2015)[164] and can be understood in terms of parents seeking to compensate their children for the lack of opportunities to play outside (Vincent and Maxwell, 2016).

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[163] These tensions are discussed further in chapter 5, section 5.11.6.

[164] As discussed in section 4.2.

The compensation argument has also been made by proponents of adventure playgrounds and other open access playwork provision (Hughes, 2012). Conversely, some have argued that the increased time children spend in supervised provision means there is less time available for unstructured neighbourhood outdoor play (Brockman *et al*., 2009; Dodd *et al*., 2021a; Loebach *et al*., 2021). Although lack of time is recognised across all socioeconomic groups as a significant limiting factor in children's capability to play out, children from middle and high socioeconomic groups report more engagement in sports clubs and organised activities than children from low socioeconomic groups (Brockman *et al*., 2009; Dodd *et al*., 2021a). Nevertheless, Holloway and Pimlott-Wilson's (2014) study found that 88% of all children, and 98% of middle-class children, attend some form of out of school activity. Children from low-income households are more reliant on free or very cheap and local opportunities, often offered by schools in the form of extra-curricular clubs or by not-for-profit organisations in community, sports or leisure centres, with occasional after school activities seen as providing a welcome change from playing at home or playing out (Holloway and Pimlott-Wilson, 2014).

Recognising that children's marginalisation in the public realm needs to be challenged, Holloway and Pimlott-Wilson's (2014, 2018) study also highlights the value of out of school activities for both children and parents. Children did not necessarily see these organised activities as replacing informal outdoor play but as being valued alongside it. They were enthusiastic about how the activities provided opportunities for having fun with friends and for playing, valuing also opportunities to play with adults, disturbing idealised notions of unsupervised outdoor free play as 'the most authentic, natural and developmentally wholesome way for children to play' (Holloway and Pimlott-Wilson, 2018, p. 430).

Parents valued out of school activities for their children's enjoyment, physical health, and social and cultural capital, as well as helping parents to manage risks associated with contemporary childhood by providing children with a safe place to play with their peers (Holloway and Pimlott-Wilson, 2014; Karsten, 2015). Loebach *et al*. (2021) found a positive correlation between time spent in organised physical activities and children's time spent in outdoor play. The authors are careful to clarify that some children may report time spent in organised outdoor activities as part of their weekly outdoor play time (suggesting that some children may perceive some of these organised activities as play). However, they also make the case that children who participate in and enjoy physically active organised activities may also be more motivated to engage in more physical activity in their 'free' time, leading to a greater desire to play out where they can engage in further physical activity with their friends (Loebach *et al*., 2021).

Although parents value these out of school opportunities for their children in similar ways across the class spectrum, public spending cuts to free-to-access services and an associated expansion in the commercialisation of services often mean that middle-class families' lives can be more heavily shaped by these activities than those of poorer families. For those able to access paid for enrichment and other out of school activities, this can often result in a considerable amount of expense and also effort for parents (usually mothers), booking activities, preparing kit, transporting children, and spectating, thereby 'producing busy social lives for the children, and often frenetic (though sometimes sociable) caring work for the parents' (Holloway, 2014, p. 384; see also Lareau and Weininger, 2008; Pynn *et al*., 2019). Partly the motivation for this also stems from the phenomenon of 'concerted cultivation', enrichment activities that cultivate a range of skills that also educate children into the middle class (Karsten, 2015; Pynn *et al*., 2019).

Given this class disparity, Holloway and Pimlott-Wilson (2014, p. 615) conclude:

'we may cast enrichment activities as literally enriching, not simply as they broaden a narrow school curriculum but because they are central to the social reproduction of middle-class advantage'.

For disabled children, opportunities for formal and informal leisure activities in institutional settings (afterschool clubs, sports clubs, uniformed, youth clubs and play projects) contribute both to their opportunities to build socioemotional capital and through this to their positive experiences of formal and informal aspects of mainstream school (Holt, 2016; see also Hodge and Runswick-Cole, 2013). Hodge and Runswick-Cole (2013) critique the term 'mainstream', arguing that it implies an ableist, normative assumption that children who cannot function in such services should be catered for elsewhere. Where opportunities in mainstream services are identified as inclusive, disabled children are still subject to varying degrees of inclusion and adaptiveness, risk management and health and safety practices, or simply being left out of games and activities when at a setting (Solish et al., 2010). Hodge and Runswick-Cole (2013) cite examples of parents petitioning to have a disabled child removed from leisure activities due to their behaviour.

The question of risk in supervised play settings

Risk-taking as a part of play experiences is important for both non-disabled and disabled children (Buchanan and Johnson, 2009; Sandseter and Kennair, 2011). Yet there is a tension between two competing perspectives, particularly for disabled children (Beetham et al., 2019). On one side is the notion that disabled children may be less capable than their non-disabled counterparts and as such should be subject to increased levels of protection from harms, thereby reducing their exposure to opportunities for risk-taking in their play (Bundy et al., 2015). The other side argues that due to various mind-body-emotional differences (Holt, 2016), disabled children should have greater exposure to situations that incorporate risk to learn to identify and manage risks in their everyday lives (Niehues et al., 2015). Alongside this, the opportunities for children generally to engage in risk-taking in their self-organised play is decreasing (Dodd et al., 2021a; Hill and Bundy, 2014).

Willans (2021) talks about her experience of working on an adventure playground for disabled children and their families, stressing the importance of being able to advocate for the children to be able to play in their own ways with the natural environment, which of course involves risks. During inspections, officers from regulatory systems frequently commented on safety issues relating to grass surfaces or natural debris left lying around (twigs and leaves). Such loose parts provide plenty of opportunities for playing and for engaging in risk-taking in a supervised context.

Playwork and specifically the adventure playground context has been advocating for the benefits of risk-taking for decades. The UK-wide Play Safety Forum was established in 1993 to 'consider and promote the wellbeing of children and young people through ensuring a balance between safety, risk and challenge in respect of play and leisure provision' (Play Safety Forum, nd). However, Wragg (2015) suggests that, because of changes to policy, policy guidance and policy implementation, playwork practice in settings such as adventure playgrounds has been significantly constrained, so much so that the playful activities of children once seen as reasonable and acceptable have become significantly limited and perceived as dangerous and unreasonable. This combination of factors, amplified by high level media coverage, has been identified as enculturing a much-reduced sense of what children might be exposed to in their play and what kinds of play might be beneficial for children (Ball and Ball-King, 2013; Ball et al., 2008; Gill, 2007; Wragg, 2015). As a result, the breadth and scope of playwork practice has become more limited in its play offer. Wragg (2015) acknowledges that the work of the Play Safety Forum (Ball et al., 2012) and that of the Health and Safety Executive (HSE) (2012) as well as that of national play organisations in promoting a balanced approach to risk management has helped adventure playgrounds open up that offer once more.

Drawing on this work, adventure playgrounds and playwork settings more broadly seek to bring a dynamic risk-benefit approach to risk management. This is supported through the provision of a rich environment for play that often includes aspects of wildlife, vegetation and small woodland or developed trees as well as both natural and fabricated loose parts, opportunities for tool use in construction activities and, in some settings, contact with open fires. Writing about an adventure playground with extensive woodland, Goodenough et al. (2021) describe the affective and effective intra-actions among children and trees during play. Trees, children and their play mingle to produce a shared experience of being in the space together, creating a range of positive affects and effects

(see also Kuo, 2015; McCormick, 2017; Mygind *et al.*, 2019). These intra-actions are woven through children's play patterns and evoked through their retelling of play experiences. Trees become things to climb, providing an opportunity for new perspectives; they act as supportive structures that hold children's bodies in ways that make them feel at home and safe; they act as leaning posts and informal social destinations, as furniture facilitating their social commune with friends, as accomplices to their play in hide and seek, as providers of loose parts by way of branches that are used for a whole manner of props and as foundations or structural anchor points for their den making, as well as affording opportunity for seclusion and respite, solitude and recuperation when the strains of everyday life have been too much (see also Chawla, 2015; Goodenough *et al.*, 2021; Wright *et al.*, 2015).

4.7.4 Commercial and privatised provision for children's play and leisure

'In the way that urban parks of the 19th century introduced inclusive public space and became a template for other examples of public leisure provision such as public swimming pools, recreation facilities and libraries, so the move to "pay-as-you-play" activities over the last 20 years has been driven by the perceived needs of the market' (Benton, 2017, p. 42).

Commercial and private play provision has been on the increase for some decades. McKendrick *et al.* (2000) discussed the rise in soft play areas and private playgrounds from the mid-1990s. This rise has accelerated alongside a significant disinvestment in publicly-funded children's play services across the UK, from the decommissioning of public playgrounds or disposal via asset transfer to cuts to playwork services (including adventure playgrounds and infrastructure), resulting in a reduction and sometimes complete disappearance of staffed play provision in many areas (McKendrick *et al.*, 2015).

Examples of commercial and private play and leisure provision include trampoline parks, bowling alleys, cinemas, laser tag, escape rooms, skating of various forms, children's party rooms, indoor soft play centres and larger family fun centres and theme parks in their various guises, with many of these including food and beverages as well as retail options (Benton, 2017). Despite the proliferation of such commercial offers, we found very little in the way of current academic studies relating to children's use or experience of these settings, apart from national tourist/leisure reports and industry reports on trends and statistics, and what we can only assume are much more detailed market research analysis reports that come at a significant cost (into the thousands of pounds). By way of example, statistics on trampoline parks, a fast-growing element of the family entertainment centre sector, RollerSoftware (2019) reports that these settings surfaced in the mid-2000s and numbered 1500 globally by 2019, the most frequent users being the six to ten-year-old age group, closely followed by the eleven to fifteen year old age group. Mostly attendance is as a part of a family group, since many of the settings require a waiver to be signed on entry by a person eighteen or over (RollerSoftware, 2019). In the UK, the first trampoline parks appeared around 2014 and are one of the fastest growth areas in recreation with around 150 parks in 2019, with similar demographics as identified previously (Walker, 2017). In respect of the broader sector of family entertainment centres, there is an argument that these centres are filling a need millennial parents have to find dynamic and social activities that are stimulating enough to provide a positive alternative to screen time for their children and facilitate some quality family time (Experience UK, 2020; RollerSoftware, 2019).

The indoor entertainment sector comprises entertainment centres aimed at both children and families, children and family edutainment centres and location-based edutainment centres. The sector was valued at $756.48m in 2020 and, as a part of the children's entertainment sector specifically, accounts for the highest revenue (Allied Marketing, 2022). Again, older and younger children (thirteen to nineteen and nine to twelve) form by far the largest user groups of these settings although often accompanied by adults/family. In respect of the

widest possible analysis that includes UK family/indoor entertainment centres teenagers (thirteen to nineteen) dominated the usership in 2019 with that trend expected to grow and remain dominant over the forthcoming period to 2027. Whilst the teenage dominance of indoor entertainment centres is likely to remain, the number of families with younger children aged between nine and twelve is likely to rise, reflecting the growing parental preference for opportunities for fun learning and adventure-focused games (Allied Marketing, 2022).

One example of such 'fun learning' is KidZania, an international family 'edutainment' centre laid out as a miniaturised indoor city where children can role play a range of adult professions such as firefighter, airline pilot or fast food worker. Tagg and Wang's (2016) research concluded that the play experiences on offer were so highly adult designed and regulated they could hardly be considered play at all. Whilst children were impressed by the design of the spaces, the opportunities available left little room for imagination or self-direction. Furthermore, given the conspicuous branding of particular companies within the 'professions', the authors suggest that the centres are more 'advertainment' than 'edutainment' (Tag and Wang, 2016).

Research by Seraphin and Yallop (2020) into children's mini-clubs at holiday resorts offers a commercial perspective on how resorts and tour operators can use the mini-clubs to enhance competitive advantage, giving a glimpse of the commercial motivations for offering something that children and families will like. The analysis uses a typology of different kinds of fun that the activities on offer are likely to generate. They found that the most commonly offered types of fun were sports-oriented and friend oriented, whereas at the other end of the authors' scale, there were no examples of surprising, adventurous or rebellious fun. They suggest that gaining competitive advantage may be supported through offering a more personalised rather than standardised offer and through the incorporation of advertainment (Seraphin and Yallop, 2020).

The final example of the incursion of the private sector into play provision comes from the hospitality sector. Karsten *et al*. (2015) explore the phenomenon of gentrified urban food and drink businesses catering to new middle class urban families who deliberately seek different ways of 'performing' family. Businesses do this by 'reducing the boundaries between drinking, eating and playing' (Karsten *et al*., 2015, p. 170). Between the families' and the entrepreneurs' practices emerge to produce a 'new family consumption space' (*ibid*., p. 171). Entrepreneurs attracted families through the provision of informal and flexible interiors and details such as bulletin boards with local information for families, children's chairs, toys, books and coloured pencils, baby changing facilities, a children's toilet, sometimes play equipment indoors or outdoors, aiming to create a home from home atmosphere that would not deter those without children. Menus offer food that children like, but that is also healthy, sometimes also organic, with information about the origins of food supplied. Service is child-friendly and personalised. The research identified three kinds of leisure time that families engage in: family time, where the focus is on the whole family; own leisure time where parents can read a paper, check emails or generally do things on their own while the children may read magazines or play; and social leisure time where families meet up with other family members or friends (Karsten *et al*., 2015). Given the growth in such commercial services aimed at children and families, it is concerning that research into and literature on children's experiences and perception of such places appears to be rare. School aged children have largely been absent from leisure studies research, leading to an adult bias in leisure theory (Mukherjee, 2020). Furthermore, where children are represented, it is more often than not as a homogenised member of the family group or a subsidiary question pertaining to family or women/mothers/fathers or as an 'illustration of unidirectional socialization' (Mukherjee, 2020, p. 222).

4.7.5 Visitor attractions, cultural and heritage sites

There is more research into time spent as a family in visitor attractions and cultural and heritage sites than there is into the burgeoning family leisure industry, but this too focuses on family experiences rather than those of children. Largely, the value of family outings, holidays and leisure activities is seen as serving to strengthen relational bonds, provide opportunities for improved communications and in general contribute to an improved sense of wellbeing (Fountain *et al.*, 2013; Larson *et al.*, 2013; McCabe *et al.*, 2010; Mukherjee, 2020; Durko and Petrick, 2013). Family leisure experiences comprise both opportunities for family time and time for oneself and are therefore experienced variably by different members of the family (Schänzel and Smith, 2014). Children reportedly prize fun and social interaction as the primary purpose of family outings (Fountain *et al.*, 2013; Sterry and Beaumont, 2006; Wu *et al.*, 2010), whilst parents reportedly consider educational benefits and opportunities for reinforcing social identity as well as opportunities for a restful and recuperative experience as key to family outings (Hallman *et al.*, 2007; Johns and Gyimothy, 2002; Lamb, 2010). Family outings that manage to balance these two agendas well are readily valued by the whole family (Larson *et al.*, 2013; Schänzel and Smith 2014).

Research also suggests shifts in the traditional gender roles played by fathers and mothers when visiting attractions and tourist destinations. Mothers reportedly seek opportunities to create time for rest and recuperation from traditional domestic and emotional work of formal or informal childcare and children's entertainment offers, whereas fathers take up additional childcare and engagement opportunities with their children to enable this (Schänzel and Smith, 2011). Mothers' choice of destination was often influenced by ease of childcare, the availability for self-directed opportunities for the children with good oversight and importantly opportunities to meet with other mothers and friends (Lamb, 2010) a motivation rarely registered in fathers' responses to the research (Fountain *et al.*, 2013).

There has been a discernible move for museums and cultural and heritage sites to be more attractive to families and therefore to consider children's play more. Examples include the Forestry Commission (Gill, 2006), the National Trust (Gill, 2010; Moss, 2012), zoos (Kinney and Smith, 2021) and museums (Derry, 2021; Lester *et al.*, 2014). Much of this has sought to look beyond only providing a separate play space and towards children's capability to experience the whole site playfully.

There are tensions in such an approach, for example those between the educational purpose of such institutions and the frivolity of play (Dickerson, 2017; Dickerson and Derry, 2021; Kinney and Smith, 2021; Luke *et al.*, 2017) or concerns about risks of damage or accidents (Dickerson and Derry, 2021; Gill, 2006, 2010), or between attracting children to museums and the infantilisation of their serious purpose (Birch, 2018; Hewitt, 2014).

One approach to reconfiguring such dualisms is offered by Birch (2018), who explores the potential of looking beyond the packaging of children as either learning or unruly bodies, pointing to research that has paid close attention to how children move through museums, both in terms of interacting with exhibits and as a space more generally. Reading this through our proposed framing of account-ability and response-ability, such research uses close observation as well as participative and consultative methods. Examples include appreciating the pleasure children gain from climbing wide marble stairs or peeking through railings (Dockett *et al.*, 2011) or enjoying peepholes and squeezing through small places (Cave, 2010, cited in Birch, 2018), noticing children's embodied spatial practices that include running, wandering, wayfaring, drumming and dancing (Hackett, 2014, 2016) and being enchanted by children balancing (arms out) along an imaginary line separating coloured tiles in the entrance to a museum, and being asked by another child, copying the actions, what would happen if you fell off (Lester, 2020). Merely appreciating these embodied engagements is not, on its own, sufficient, as tensions remain, and such behaviours are decried by those who feel that the move towards making museums child-friendly has gone too far, who perceive such disrespect and disruption as indicative of the monstrosity of children's bodies (Hewitt, 2014). Birch (2018) suggests, rather, unpackaging the adult-child binary inherent in the concept of child-friendliness through attending to the power of the materiality and atmosphere of museums. Adults, as

well as children, are moved by intra-actions among museum spaces and objects, experiencing awe, horror and other emotions and feelings. Paying attention to the in-betweenness of experience rather than to linear forms of learning (through explanatory text, for example) can open up ways of exhibiting objects, for example using magnification in a window to highlight detail, and working with playfulness, uncertainty and vagueness rather than precision. Such approaches shift the experiences of both adults and children in engaging with exhibitions. In this way,

'[b]oth children and adults can experience museums through atmospheres of ambiguity, not just through learning-focused texts and interpretation, but through sensory and bodily encounters with space and matter for these are valid ways of knowing and instruments of comprehension … what if playfulness and openness of interpretation were more embedded within children's and adults' museum experiences? Children and adults, in museums, would both be an undefined kind of monstrous … choosing ways to move from tangible worlds to the possibilities of imagined or virtual ones' (Birch, 2018, p. 525).

4.8 Conclusion: accounting for play

This chapter has reviewed a selection of the growing body of literature on children's play patterns today, looking across the public realm, the digital realm, the non-domestic institutions of childhood and the home. Overall, the chapter presents a seemingly contradictory picture of on the one hand a lively culture of play expressed in a range of contexts and on the other stark intersecting inequalities and spatial injustices that constrain children's capability to play across these contexts. Such inequalities have been driven by multiple forces including the imperative of late capitalism and the rise of populism (Lynch, 2019). One example is that the 2008 global financial crisis has greatly exacerbated inequalities and associated economic, political and social insecurities (Create Streets Foundation, 2021; Katz, 2019; McDowell, 2017) in ways that have affected children's lives generally and their play patterns specifically. Another is that commercial interests have made great inroads into children's play in the form of digital opportunities, the toy industry, out-of-school activities and commercial play provision, putting such resources beyond the reach of some children (Holloway and Pimlott-Wilson, 2014; Marsh, 2011, 2012). A third is that, in the public realm, traffic (Bassett *et al.*, 2015; Bhosale *et al.*, 2017; Fyhri *et al.*, 2011; Jelleyman *et al.*, 2019; Loebach *et al.*, 2021; Pont *et al.*, 2009; Shaw *et al.*, 2012, 2015) and issues of neighbourhood safety (Barclay and Tawil, 2021; Beetham *et al.*, 2019; Dias and Whitaker, 2013; Gerlach *et al.*, 2019; Giles *et al.*, 2019; Goff *et al.*, 2014; Horton and Kraftl, 2018a, 2018b; Pinckney *et al.*, 2019; von Benzon, 2017; Witten *et al.*, 2019) continue to constrain children's capability to play out in multiple interrelated, intersectional and unequal ways.

The studies reviewed here highlight how play emerges from the conditions of children's lives and how children will seek out moments of playfulness, both fleeting and more sustained, in their desire to make life better and to be well (Lester, 2020). Children's playful appropriation of institutional and public space has been described as a disruption or repurposing of the intention for such spaces (Carroll *et al.*, 2019; Conn, 2015; Pyyry and Tani, 2016; Russell and Stenning, 2022; Shearer and Walters, 2015). In one study using mapping and photography, children themselves described such playfulness as 'doing nothing' or 'messing', anticipating adult disapproval, including potentially that of the researcher (Bourke, 2014). In another study where children 'shared' their playground with drug users and rough sleepers, the children, although scared and wanting to avoid such people, still found spaces to appropriate for their play, for example in the street:

'children jumped on walls, balanced on kerbs and avoided stepping on cracks; they ran, skipped and spun in circles; and they played various games incorporating manhole covers, shadows and other street features' (Carroll *et al*., 2015, p. 12).

The many different ways that children play today that have been described in this chapter raise a challenge to the often-cited view that children's play is in decline (Bergen, 2018; Borst, 2021; Brown, 2014; Gleave and Cole-Hamilton, 2012; Gray, 2011; Palmer, 2019). As has been shown, such a claim conflates change with decline and is also caught up in adult narratives of valuing some forms of play over others (Alexander *et al*., 2014; Lewis, 2017; Smith, 2010; Woodyer *et al*., 2016). In particular, there is concern over the decline in children's self-organised outdoor play. Such concerns are important and valid. At the same time, such concerns can be expressed through 'a succession of rather generalised, apparently commonsensical truths about the state of contemporary play' (Horton and Kraftl, 2018a, p. 216) that include children's exclusion from the public realm, parental fears and over-protection and the lure of digital devices, with consequences that include rises in obesity, mental health issues and reduced contact with nature. Horton and Kraftl also suggest that these narratives are based in

'a kind of wistful longing for particular time-spaces where alternative modes of outdoor play are/were possible. This longing could arguably be critiqued as a generalised nostalgia for an imagined, idyllic "golden age" of outdoor play: a just-gone time-space where children roamed freely outdoors, played authentic games, and participated in adventurous, emancipatory play' (Horton and Kraftl, 2018a, p. 216).

This is not to downplay the importance of children's self-organised outdoor play or the injustices of its decline; rather it is a cautionary note to avoid over-simplistic, over-romanticised and universal claims.

As this chapter has shown, macro-level, quantitative research does point to a decline in children's freedom of movement and their associated capability to play out in their neighbourhoods (Dodd *et al*., 2021a; Gill, 2021; Larouche *et al*., 2017; Loebach and Gilliland, 2016a, 2016b; Malone and Rudner, 2016; Shaw *et al*., 2015), bringing concerns for children's physical activity levels and mental health (Alexander *et al*., 2014; Dodd *et al*., 2021a). The most significant reductions in children's freedom of movement occurred between 1970 and 2000 (Shaw *et al*., 2012), over twenty years ago, and although there have been recent moves towards planning and designing for child-friendly environments, traffic, both moving and stationary, remains the biggest barrier to spatial justice for children and their capability to exercise everyday freedoms and to play out in their neighbourhoods (Aarts *et al*., 2012; Arup, 2017; Bourke, 2017; Ferguson, 2019; Frohlich and Collins, 2023; Russell *et al*., 2020; Shaw *et al*., 2015). In poorer and structurally marginalised communities and for particular groups of children, neighbourhoods also present real dangers from other people (Barclay and Tawil, 2021; Beetham *et al*., 2019; Dias and Whitaker, 2013; Gerlach *et al*., 2019; Giles *et al*., 2019; Goff *et al*., 2014; Horton and Kraftl, 2018a, 2018b; Pinckney *et al*., 2019; von Benzon, 2017; Witten *et al*., 2019).

Useful as they are, studies into the decline in children's everyday freedoms do not on their own account for the myriad entangled influences on children's play patterns. The influences on children's play need to be understood in the context of the mesh of local socio-political and spatial conditions and powerful structural forces including globalised (late) capitalism and commercialisation, neoliberal education and austerity politics, poverty, racism, (cishetero) sexism and an ableist culture, influences that have been reiterated throughout this chapter. Children

themselves, when asked, indicate a strong desire to play out (Brockman *et al.*, 2011; Children's Commissioner for England, 2021; Children's Commissioner for Wales, 2018; Colvert, 2021; Dallimore, 2019, 2023; HAPPEN, 2018). Our review has shown the complexities and nuanced entanglements of social, cultural, political and spatial barriers to outdoor play and the attractions of indoor play (including, also, the impossibility of setting indoor and outdoor up as binary opposites) that preclude one single isolatable cause. Nonetheless, it could perhaps be argued that relatively little effort has been made in respect of children's capabilities to play in the public realm compared to levels of financial investment in the commercial play, toy and digital play industry. It is for this reason that we focus on playing out here.

Equally, macro-level generalisations at country level regarding children's everyday freedoms do little to account for micro-level particularities and differences of the ongoing social, political and material production of neighbourhood spaces. The growth in hyperlocal and participative research with children using creative methods has done much to highlight conditions that can support children's outdoor play and reveal that, when conditions are right, children do still play out. As the body of research grows, some general principles can be made, although at the same time, each neighbourhood differs in how these principles affect and are affected by each other. We have outlined these principles in section 4.3.5, and summarise them again here.

What emerges from these multiple studies is the interdependence of what Arup (2017) refers to as 'children's infrastructure' and 'everyday freedoms'. These can include a variety of spaces (planned and unprogrammed, small or larger, flat or landscaped, built or natural, fixed or flexible); playable features (for example, low walls, hiding spaces, mounds); planting for play (bushes and trees); connections between playable spaces; and sensitive maintenance (for example recognising the value of freshly cut grass, dead leaves, hollows in hedgerows, fallen trees, puddles and mud) (Barclay and Tawil, 2016). Being able to access these spaces requires no major roads to cross and low or traffic free routes (Loebach and Gilliland, 2016a). It also requires friends nearby, parental permission (Loebach and Gilliland, 2016a), the absence of threats from other people and their actions (Beetham *et al.*, 2019; Dias and Whitaker, 2013; Gerlach *et al.*, 2019; Giles *et al.*, 2019; Goff *et al.*, 2014; Horton and Kraftl, 2018a, 2018b; Barclay and Tawil, 2021; Pinckney *et al.*, 2019; von Benzon, 2017; Witten *et al.*, 2019) and a culture where playing out is seen as normal (Barclay and Tawil, 2021; Lester and Russell, 2013; Wales *et al.*, 2021). These features do not operate in isolation. In sum, the capability to play out emerges from relations among sufficient environmental resources and the ability to access them.

In seeking to work with such relationality of conditions, and returning to the policy perspective reviewed in chapter 2, the concept of play sufficiency may be useful as both a proxy and organising principle for child-friendly environments, revealing much about how particular places work in respect of children's capability to play out. In particular, given the evidence reviewed in chapter 3, the capability to meet up and play outside regularly, from a young age and without the need for direct adult supervision or accompaniment, together with children's satisfaction with the quantity and quality of their opportunities for play, will contribute to children's overall capability to do and be well. Furthermore, many of the issues that need to be addressed in securing play sufficiency for all align with environmental concerns and other principles enshrined in the Welsh Government's Well-being of Future Generations (Wales) Act 2015.

Having reviewed the evidence accounting for the state of children's play today, the next chapter turns to adult responses aimed at supporting children's capability to play.

Chapter 5

Supporting children's play

5.1 Introduction: further considerations on account-ability and response-ability

Chapter 3 presented contemporary research showing the many interrelated ways that playing contributes to children's wellbeing and to the broader wellbeing of communities. However, neither play nor wellbeing can be seen as separate from the conditions of children's lives. Relational perspectives on play and wellbeing emphasise how both emerge *from and as* the entanglements of bodies, space, material objects, desires, histories and much more (Andrews *et al*., 2014; Coffey, 2020; Lester, 2020). A relational capability approach to wellbeing positions play as a core capability necessary for wellbeing, meaning that social justice for children entails ensuring that conditions are conducive to play. Chapter 4 reviewed the literature on children's play patterns, describing factors that constrain play and giving a sense of supportive conditions through multiple accounts of where, how, with whom and what children do play. Promoting children's capability to play therefore requires being able to account for both macro and micro forces and flows affecting conditions conducive to playing and responding in ways that help produce those conditions. This matters both in terms of children's being well and the more long-term wellbeing of nations, making the capability to play a key contributor to the Well-being of Future Generations Act (Wales) 2015.

As introduced in chapter 4, account-ability is about establishing multiple ways of accounting for and taking account of children's environments (neighbourhoods, institutions, the structures that govern them and the people in them). It involves paying attention to children's ways of knowing about space, and the people and systems that influence their lives and opportunities to play. Response-ability is about adults developing the capability to respond effectively to the ways in which children use and move through their everyday environments and keeping these environments open to the possibility of the production of playful moments (Russell *et al*., 2019).

Response-ability is the focus for this chapter, which builds on chapter 4 to consider a range of responses in support of children's capability to play. The processes of account-ability and response-ability are entwined such that the prevailing forces that affect children's capability to play also affect how adults account for and respond to children's play. The accounts of children's play patterns offered in chapter 4 highlight the complex and interrelated conditions that affect children's capability to find time, space and permission to play in the institutions of childhood (including the home), online and in the public realm. Children's desires and play cultures, adult imaginaries about the value of childhood and play, global and local flows and forces of capitalism, material-discursive practices, the production of spaces and more all combine to produce irreducible conditions that are singular and contingent. This raises challenges for identifying universal patterns in how the spaces of childhood are produced and also highlights the need for an ethical response-ability on the part of adults to work towards a more just distribution of spatial resources in favour of children (Lester, 2020). In considering adult responses, Lester draws on Ungar's (2008, 2011) work on the social ecology of resilience, and particularly the concepts of navigation and negotiation. These are briefly introduced at the outset of this chapter because they provide a useful 'sensitising concept' for understanding the ongoing twin processes of account-ability and response-ability and their relationship with children's play, spatial justice and wellbeing.

For Ungar (2008, 2011), resilience is a process that emerges in nonlinear and dynamic ways from children's capacity to navigate towards health-giving resources (including opportunities to play) and the capacity for communities, including children, to negotiate for such resources in ways that are meaningful to them, noting that this will be different for different children. Negotiation may be explicit, in the form of campaigns and advocacy (some of which are reviewed in this chapter), and/or it may be through children's everyday practices of appropriating spaces for playing, often in ways that enact how spaces might be re-imagined in more just ways for children (Carroll *et al*., 2019; Pyyry and Tani, 2016). This means that although it may be possible to discern core principles for supporting children's capability to play (as a health-giving resource), such principles are affected by dynamic, fluid, hyperlocal and individual differences, and so interventions will not be neat, replicable, isolated and linear, but rather messy and contingent. Children's capability to find time and space for play is affected by, and affects, both physical and social issues of safety and justice (Jansson *et al*., 2022). In this way the process of response-ability is affected by, and affects, the process of account-ability, calling attention to the importance of ongoing hyperlocal research, either by attuned adults and/or ethical research with children.[165]

This chapter draws on and updates a previous desk-based review carried out to inform research into the Welsh Government's Play Sufficiency Duty (Russell *et al*., 2020). It both summarises responses and also gives specific examples. As with the original review, the examples given have not been selected as best practice, but to show what has been possible in different contexts. Some examples may be replicable to some extent, but many will be contingent on local histories, conditions and people.

Given that many of the examples described in this chapter are from practice and policy, it draws on grey literature more heavily than other chapters of the review as well as information gathered via interviews and several callouts on social media for the original desk-based review (Russell *et al*., 2020) and for this review. Much of the academic literature on actions taken to support children's play offers evaluations of specific interventions that often have instrumental aims, such as increasing physical activity, which demonstrates how the production of knowledge in terms of children's capability for play is affected by adult imaginaries and material-discursive practices. Equally problematic, the grey literature often serves a promotional or advocacy purpose and so is likely to gloss over 'the messiness, contingency and unintended consequences of actions and interventions' (Russell *et al*., 2020, p. 16).

Through the process of reviewing this mixed range of sources, it became apparent that what people want to share in terms of good practice, both in the literature and on social media, are specific projects and policies. These ranged across:

- adult-initiated projects that designate times and spaces for playing (playgrounds, play rangers, playwork, school playgrounds, play streets, early years and a range of games/sport/physical activity and other learning projects);

- policy shifts and actions to make public space more playable, both in the built and natural environment;

- campaigns and advocacy to encourage playing, particularly physical play and learning outdoors and in nature.

Many of these initiatives are similar across minority (and increasingly majority) world countries, and it is possible to discern a number of key narratives emerging in terms of advocacy and actions to support children's play:

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[165] See section 5.8.1 for more detail on this.

- **instrumental arguments** highlighting the relationship between play and:

  - learning (Real Play Coalition, 2020)

  - physical activity and health (Ardelean *et al.*, 2021; Bundy *et al.*, 2017; Engelen *et al.*, 2018; Gill, 2014a; Hyndman *et al.*, 2014a; Johansson *et al.*, 2011; López *et al.*, 2020; Moser *et al.*, 2021; Mueller *et al.*, 2020; Page *et al.*, 2017; Tawil, 2017; Taylor *et al.*, 2014)

  - obesity reduction (Gill *et al.*, 2019; Parrish *et al.*, 2020)

  - mental health (Gill, 2014a; Gill *et al.*, 2019; The Means, 2016)

  - community cohesion (Foster *et al.*, 2014; Lee *et al.*, 2015; Tawil and Barclay, 2020)

  - environmental stewardship (Chawla, 2015; Dyment and Bell, 2008).

- **romantic arguments** about loss of childhood innocence and contact with nature (Chawla, 2015; Derr and Lance, 2012; Nedovic and Morrissey, 2013; Verstrate and Karsten, 2016), sometimes alongside a demonising of technology (Charles and Louv, 2009, 2020; Edwards *et al.*, 2020; Frumkin *et al.*, 2017; Larson *et al.*, 2019; Louv, 2005; Moss, 2012);

- **rights-based arguments** about the right to play and spatial justice (Bornat, 2016; Bornat and Shaw, 2019; Caputo, 2020; Great Ormond Street Hospital, 2021; Lester and Russell, 2013a, 2014a; Lott, 2020; Patte and Brown, 2011; Russell *et al.*, 2019, 2020; Save the Children, 2008; UNCRC, 2013; UNICEF, 2009; Wood *et al.*, 2019; Wragg, 2016);

- **economic arguments**, including the social return on investment and attracting families back to cities through regeneration projects (Arup, 2017; Gill, 2014a, 2019, 2021; López *et al.*, 2020; Matrix, 2010; Mueller *et al.*, 2020; The Means, 2016);

- **environmental arguments** that recognise the synergies between spatial justice for children and actions to reduce motorised traffic and to 'green' cities (Arup, 2017; Audrey and Batista-Ferrer, 2015; Bernard van Leer Foundation, 2019; Bornat, 2016, 2018; Create Streets Foundation, 2021; Gill, 2021; Hart and Parkhurst, 2011; Placemaking Wales, 2020; RTPI, 2021; Russell *et al.*, 2020; Shaw *et al.*, 2015; Tawil and Barclay, 2020).

The chapter largely follows a macro to micro shape, acknowledging interdependence and interrelatedness across scales. It opens with a consideration of the literature on child friendly environments, with examples of some of the international initiatives and guidance, and a review of what has been learned from efforts to make environments more child friendly, including approaches to research that can inform and evaluate changes made. The following four sections focus on the built environment, starting with a brief commentary on the literature on planning policy and placemaking and a series of examples of applications and changes made at municipal or neighbourhood level, most of which involve changes to the physical infrastructure of the built environment and so focus on the public realm. The discussion then narrows down to planning for children's neighbourhood play beyond segregated spaces, including housing design, and then turns to the literature on safer streets and active travel, greening the built environment and the provision of unstaffed designated spaces for play. Following this, the chapter turns to looking at the role of people in co-producing spaces for play, including children themselves, the work of play advocates (including playworkers) and community play development and facilitating play in specific contexts. The chapter ends with a reflection on the full review and adults' response-ability to support children's capability to play.

5.2 The movement towards child-friendly environments

'Whenever children pretty much anywhere in the world are asked what they like and dislike about where they live, their answers are almost always the same. In spatial terms, they like choice and variety in places to play and socialise, including contact with nature. They like to be able to get around their neighbourhoods easily and safely on foot or by bike. And they dislike traffic, pollution and litter and environmental neglect' (Gill, 2022).

As evidenced in chapter 4, research repeatedly reveals the many ways in which children are marginalised within the public realm, often seen as out of place, and deemed to be at risk or a threat to others. This is compounded by children being 'routinely excluded from decision-making and planning processes' (Kraftl, 2020b, p. 2), meaning that their rights and interests rarely have meaningful influence over the design and production of public spaces. However, as many children's advocates have argued, paying greater attention to children can open up new ways of thinking about space (Bornat, 2018), which are likely to be of benefit to other people and to the environment as a whole (Brown *et al*., 2019; Mansfield and Couve, 2020). Bringing a child's lens to addressing systemic issues can help join the dots and provide a unifying theme (Arup, 2017; Gill, 2020). Furthermore, 'more people playing out more of the time in more places can improve community cohesion and strengthen intergenerational relationships' (Tawil and Barclay, 2020, p. 198). The concept of 'sufficiency', as recommended in the UN Committee on the Rights of the Child's (2013) General Comment no. 17 and as introduced into law in Wales by the Play Sufficiency Duty, can be seen as an organising principle that can bring multiple actors together and around which their efforts may be arranged.

Given that 70% of the global population is predicted to live in urban areas by 2050 (UNICEF, 2019), it is not surprising that there has been a growth in international initiatives aiming to improve urban environments for children, including the UN's 2030 Agenda and Sustainable Development Goal 11, UN-Habitat III, and UNICEF's Child Friendly Cities and Communities Initiative. Concern regarding how the quality of urban environments affects children's wellbeing and capability to play has been voiced since the 1970s, for example in the work of Kevin Lynch (1977), Colin Ward (1978), Roger Hart (1979) and later Robin Moore (1986) (Gill, 2017a; Jansson *et al*., 2022). The idea of child-friendly cities began to come together at the 1996 United Nations Conference on Human Settlements, Habitat II, where member states made a commitment to improving the living conditions of children in urban environments. This included the recognition that municipal governments were well positioned to influence children's everyday lives and support children's participation in shaping the places where they live. It was from this that UNICEF's child friendly initiative emerged (Wilson, 2022). Since this time, international advocacy for child friendly environments has continued to grow.

In addition, there is a growing body of literature on the principles of child-friendly urban design (see for example, Arup, 2017; Bernard van Leer Foundation, 2019; Candiracci *et al.*, 2023; Danenberg *et al.*, 2018; Gill, 2021; Krysiak, 2019; Martin *et al.*, 2023; Real Play Coalition, 2020) and of research into children's experiences of urban living (Aarts *et al*., 2012; Audrey and Batista-Ferrer, 2015; Krishnamurthy, 2019; Krishnamurthy *et al*., 2018; Krysiak, 2018, 2019; Martin *et al*., 2023). However, as Brown *et al*. (2019, p. 5) write: 'the challenge yet to be faced is the co-ordination of the agencies, funding, disciplines and policies needed to deliver child-friendly cities everywhere'. In a structured review of academic literature on child-friendly environments from 1998 to 2020, Jansson *et al*. (2022) found that by far most focused on neighbourhood or municipality level and considered activities such as (in order of frequency) participation in decision making, and regulation, planning, design and management of child-friendly environments. Key themes addressed (also in order of frequency) were: green and open spaces; access; safety; fairness and inclusion; social connection; play and leisure; a clean environment; freedom; involvement and learning. Many of these themes were interrelated, highlighting the interplay between physical and social aspects

of children's environments. Of all the themes, the most fundamental for child-friendly environments were green and open spaces and access. Although general themes were identifiable, much of the literature addressed specific approaches and identified multiple stakeholder involvement across the activities listed above.

As discussed in chapter 4, whilst the focus of child-friendly urban planning tends to be on cities, many of the issues relating to children's capability to find time, space and permission to play apply to smaller conurbations, small towns or rural and semi-rural villages, although they play out in different ways (Barclay and Tawil, 2023; Carver *et al*., 2013; Dodd *et al*., 2021a; Lee *et al*., 2015; Loebach *et al*., 2021; Shaw *et al*., 2015). This is important when considering the lives of children in Wales, given that 21% of the population lived in small villages or hamlets with a population of less than 5,000 at the time of the 2021 census (Barton, Zayed and Ward, 2024). Research has paid less attention to the experiences of children living in much smaller rurally isolated environments. Whilst it may seem that such children are surrounded by opportunities for playing in natural spaces, this is often private farmland without any right of access (Lester and Russell, 2014a); approximately 90% of land in England and Wales is inaccessible to the public (Monbiot *et al*., 2019). In addition, rural children's freedom of movement can be more constrained than their urban counterparts (Carver *et al*., 2012; Kyttä *et al*., 2015).[166]

5.2.1 Children's infrastructure and everyday freedoms in the built environment

'Poor urban planning restricts children's play and mobility, fuelling the global epidemic of child obesity: a public health problem whose existence would have staggered experts back in the 1970s. It also plays a part in rising levels of adolescent mental health problems, by preventing many children from developing resilience early in life through opportunities for independence' (Gill *et al*., 2019).

Two interdependent key concepts of child-friendly approaches to urban development have been suggested, namely everyday freedoms and children's infrastructure (Arup, 2017). Children's infrastructure refers to 'the network of spaces, streets, nature and interventions which make up the key features of a child-friendly city' (p. 17), and everyday freedoms are related to freedom of movement to use this infrastructure. Key to this infrastructure are the spaces and streets in front of people's homes and the connections between those and other streets and homes.

The built environment refers to that 'part of the physical environment constructed by human activity' (Villanueva *et al*., 2016, p.11, citing Saelens and Handy, 2008). As evidenced in chapter 4, children's capabilities for playing are intimately connected to the built form of the environments in which they live and spend their time, whether that is in cities or smaller settlements. However, despite many years of advocacy and a growing body of research and practice, providing numerous examples of child-friendly approaches (Brown *et al*., 2019; Russell *et al*., 2020), 'most urban places are still not really child-friendly' (Kraftl, 2020b, p. 2). In addition, apart from some notable examples, child-friendly programmes and other similar rights-based approaches have had relatively little influence on the form of the built environment (Arup, 2017; Brown *et al*., 2019; Wood *et al*., 2019).

Many of the initiatives described in section 5.2.2 outline how changes to the physical infrastructure can open up space for children's everyday freedoms. Of key importance here are actions taken to reduce traffic, discussed in more detail in section 5.5. Important, too, as identified in chapter 4, is preventing and reversing the enclosure and privatisation of public land to increase space for playing. Monbiot *et al*. (2019) call for UK government intervention

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[166] See chapter 4, section 4.3.1.

to ensure a more balanced use of land where 'everyone has sufficient access to the physical fabric of this nation' (p. 12). They argue that there is insufficient space for everyone to enjoy private luxury, but that by expanding what is commonly available to all, there can be sufficient space for everyone to benefit from an improved public realm. They call for an expansion of the commons, areas of land managed sustainably and in perpetuity by communities for the good of people's wellbeing, with one of the roles of government being to 'support strong and confident communities that are better able to manage their own lives and resources' (p. 13). This would include community groups co-producing housing and shared public spaces, with a greater emphasis on communal space and space for children to play.

The wide-ranging, practical recommendations in the report by Monbiot *et al.* (2019) include:

- improving the transparency of land ownership making this data free and open access

- establishing a 'Common Ground Trust' that reduces the cost of buying a home by purchasing the land the home is built on, with buyers then paying a land rent to the trust (meaning these rents are socialised rather than going to private landlords and banks)

- undertaking an ambitious social housing building programme

- taxing empty homes and second homes at higher rates (with a surcharge for properties owned by those outside of the UK)

- land developments led by 'democratically-accountable public bodies and communities' (p.7), not private developers, with measures to ensure the participation of citizens in planning decisions and enhancing opportunities for communities to co-create whole housing estates and other developments

- appointing a 'future generations champion' in each local authority to represent the interests of children and unborn generations in planning processes, making the provision of parks a statutory service

- halting and reversing the selling off of local authority owned County Farms and encouraging Community Land Trusts to buy rural land for farming and conservation

- adopting a principle of a Right to Roam in both urban and rural areas.

However, improving conditions for children's play is not solely dependent on physical changes to the built environment and more opening up of privatised land, important though these are. Creating the capability for children to play also involves fostering a culture where both children and their caregivers feel that their neighbourhoods are safe enough places for playing (Long *et al.*, 2014). Reducing traffic and parked cars, and removing them from the places where children should be able to play, would do much to alleviate these concerns and open up more space for playing (Arup, 2017; Brown *et al.*, 2019; Gill, 2021; Shaw *et al.*, 2015). Nevertheless, such physical changes alone may not sufficiently address deeply rooted safety concerns and fears about other people. Research also emphasises the importance of informal social networks within communities and the development of 'neighbourliness', as well as a need to promote tolerance and acceptance of children playing, which is more likely to be lacking in places that no longer have a culture of playing out (Long *et al.*, 2014).

Several studies have argued that simply advocating that parents let their children out to play may be incongruent with modern conceptions of good parenting[167] and therefore unlikely to be successful (Holt *et al.*, 2016; Pynn *et al.*, 2019). Instead, the role of community building and programming in creating (or directly providing) 'the sense of supervision that is essential to modern conceptions of good parenting' (Holt *et al.*, 2016, p. 7) is emphasised. Reducing fears about safety is key, and can include community initiatives addressing physical and social incivilities such as better maintenance of space (Foster *et al.*, 2014), the promotion of community activities to reclaim

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[167] See chapter 4, section 4.2.6.

spaces for playing (Cronin-de-Chavez *et al*., 2019) or encouraging more physical activity (Hunter *et al*., 2015), and other initiatives aimed at bringing people together that foster children's friendships, build neighbourhood networks and generate a sense of social cohesion (Foster *et al*., 2014; Lee *et al*., 2015).

5.2.2 International initiatives

This section briefly summarises some of the international initiatives that aim to support municipalities to make urban and other built environments child-friendly. Most aim their work at a municipal level, where the motivations for actions are several, and tend to be overlapping. Gill (2019, 2021) identifies three motivations: children's rights and wellbeing; economy and demography; and environment and sustainability, adding, 'While typically grounded in values around children's rights, it gains most traction when it is linked to other agendas such as sustainability, public health, or economic and demographic change' (Gill, 2019, p. 5). Again, this highlights the interrelatedness of broader policy agendas and children's capability for play. As noted in chapter 2, there are many synergies between securing greater spatial justice for children and other agendas associated with more sustainable and healthier ways of living (Arup, 2017; Russell *et al*., 2020). This includes reducing motor vehicle traffic, removing harmful pollutants, enabling more active forms of travel, providing better public transport, ensuring easy access to green and playable spaces, increasing the number of trees, and situating amenities 'close at hand' (Gill, 2021, p. 140).

UNICEF Child Friendly Cities and Communities Initiative (CFCI)

This global initiative is closely aligned to issues of sustainability, emerging as it did from the 1996 UNICEF (Habitat II) conference and its continued alignment with the 17 Sustainable Development Goals outlined in the 2030 Agenda for Development (Jansson *et al*., 2022; UNICEF, 2018). The conference noted that, in implementing, monitoring and evaluating the Habitat Agenda, 'the well-being of children is a critical indicator of a healthy society' (United Nations, 1996, p. 30). It serves perhaps as a reminder of slow progress toward the aspirations it hoped to achieve for children that this agenda was initiated over 25 years ago. The Child Friendly Citiyes Initiative is led by UNICEF, which describes a child-friendly city as 'a city, town, community or any system of local governance committed to fulfilling child rights as articulated in the Convention on the Rights of the Child' (UNICEF, 2018, p. 10), commenting that 'a child friendly city is a city that is fit for all' (*ibid*.). Such a sentiment has been voiced frequently and has been popularised by Enrique Peñalosa, the former Mayor of Bogotá, Colombia, who said 'children are a kind of indicator species. If we can build a successful city for children, we will have a successful city for all people' (cited in Arup, 2017, p. 4).

In 2018, UNICEF revised the initiative, bringing in 'play and independent mobility as part of its comprehensive, rights-based municipal change agenda' (Gill, 2022). At that time, the CFCI extended across 38 countries reaching up to 30 million children (UNICEF, 2018). In taking up the challenge to become a child friendly city, local government and partners identify objectives under the five goal areas on the framework for actions:

'• Every child and young person is valued, respected and treated fairly within their communities and by local authorities.

• Every child and young person has their voice, needs and priorities heard and taken into account in public laws, policies, budgets, programmes and decisions that affect them.

• Every child and young person has access to quality essential social services (this includes healthcare, education, nutrition support, early childhood development and education, justice and family support).

• Every child and young person lives in a safe, secure and clean environment (this includes protection from exploitation, violence and abuse, access to clean water, sanitation and hygiene, safe and child-responsive urban design, mobility and freedom from pollution and waste).

• Every child and young person has opportunities to enjoy family life, play and leisure (this includes social and cultural activities, and safe places to meet their friends and play) (UNICEF, 2018, p. 12).

Cardiff is the first UK city to be awarded full UNICEF child-friendly status. The UNICEF report states that:

'Cardiff's approach to creating a culture that values and celebrates children has focused on increasing knowledge and raising awareness of child rights among local politicians, and making the built environment of the city more welcoming and playful for children and young people' (UNICEF, 2023, p. 12).

Other UK cities that are currently working towards UNICEF Child Friendly City status include Aberdeen City Council, Derry City and Strabane District Council, London Borough of Lambeth, Liverpool City Council, Nottingham City Council, London Borough of Redbridge, Southampton City Council and Wokingham Borough Council (UNICEF, 2022b). It has been suggested, however, that the impact of the UNICEF CFCI on the built form of cities has been limited, with initiatives faring better at encouraging children's participation in decisions affecting them at municipal level than any substantive changes to the playability of the built environment (Bishop and Corkery, 2017; Brown *et al.*, 2019; Gill, 2021). Nevertheless, a UNICEF press release (UNICEF, 2022c) highlights some of the initiatives municipalities have taken in support of play. One example is the Grangetown Play Lanes project in Cardiff, which aims to restore neglected back lanes as play spaces for local children, cleaning them up and transforming them, with Cardiff City Council working in partnership with Cardiff University and the Grange Pavilion (Grange Pavilion, 2021).

The Urban95 programme

The Bernard van Leer Foundation's Urban95 programme (Bernard van Leer Foundation, 2019), is also worthy of note. The programme asks, 'if you could experience the city from 95 cm — the height of a 3-year-old — what would you change?' (p. 21). The focus of the programme is on improving conditions for caregiver wellbeing, thereby improving child development outcomes for babies and toddlers. Urban design that can support family friendly environments has a fundamental role to play in this. The programme does not prescribe a specific model or framework but the starter kit (Bernard van Leer Foundation, 2019) offers numerous illustrative examples by way of case studies (including family friendly design of streets, sidewalks, parks, playgrounds and plazas, safe playful walking routes for caregivers and young children, and strategies to improve young children's access to nature near their home), each of which include the relevant cross sector partnerships needed in their realisation.

The case studies also raise awareness of the extensive research evidence informing family friendly urban design. One such example is how 'small, unstructured play interventions frequently encountered along the way, or integrated into parks or plazas, can have more impact than large destination playgrounds, because they encourage shorter but more frequent play between caregivers and their children' (Bernard van Leer Foundation, 2019, p. 31). Such interventions can include murals, natural elements, musical instruments, manufactured infrastructure, slides, trampolines, painted sidewalks, as well as incorporating seating so families can rest. These all help to improve perceptions of safety for caregivers which in turn it is argued 'will increase play opportunities throughout the city and reduce caregivers' levels of stress' (Bernard van Leer Foundation, 2019, p. 33).

Global Designing Cities Initiative: Streets for Kids

Streets for Kids is a programme of the Global Designing Cities Initiative (GDCI) that 'looks at cities through the lens of children and their caregivers' (Global Designing Cities Initiative, 2021). In 2020, GDCI published a design guide, *Designing Streets for Kids* (Global Designing Cities Initiative, 2020). The two key principles are that children and their caregivers should be able to feel safe and confident to move around their cities either using public transport or active forms of travel and that public streets should offer space to dwell and not only move through, including spaces for play. The guide contains several case studies of cities around the world that have made changes to streets in favour of children.

The Urban Play Framework and Cities Alive: Designing for urban childhoods

The Urban Play Framework, developed and administered by the Real Play Coalition (2020), is a method for assessing challenges and opportunities for play in urban environments, designing and supporting play activation and monitoring impact. Compared with the other frameworks reviewed here, it adopts a narrower and more instrumental perspective on the value of play. The model was designed to answer the question, 'What can contribute to make the built environment an enriching and nurturing play and learning experience for children, to support their optimal development?' (Real Play Coalition, 2020, p. 18).

The Real Play Coalition was launched at the 2018 World Economic Forum by co-founders Unilever (through the Dirt is Good brands of Persil and Omo), the LEGO Foundation, Ikea Group and National Geographic with a clear social and economic investment focus to their support for play:

'The more our children play today, the more prepared future generations will be. Play is needed to endow us with leaders who can resolve conflict, problem solve, build socially connected communities and inspire society to flourish' (Goodwin *et al.*, 2018).

Its current partners are the LEGO Foundation, Ikea Group, National Geographic, UNICEF and Arup, working in partnership with Placemaking X and the Resilient Cities Network.

The Urban Play Framework was developed by Arup with support from the Royal Town Planning Institute (RTPI). It operates across scales of home, school, neighbourhood and city, considering the conditions for play within each across four play dimensions:

- **Facilitation for Play**, which considers how adults actively support and facilitate rather than direct play, balancing approaches that incorporate free play, guided play, games and instruction, with the aim of boosting children's learning and development. The guidance suggests facilitators should be able to integrate learning goals without disturbing children's engagement in playing.

- **Environment and Infrastructure for Play**, which considers if the space and resources available can support children with different abilities to engage in a range of play types, identified as physical play, object play, symbolic play, pretend play and rule-based games.

- **Time and Opportunity for Play**, considers the time children have to engage in developmentally rewarding play experiences important for wellbeing and the building of skills needed for future success.

- **Supportive Ecosystem for Play**, considers if children's basic needs for shelter and nutrition, quality health care and education services are met and whether local and regional policy frameworks and organisational systems are functioning effectively to enable children to play (Real Play Coalition, 2020).

At the time of writing there are two pilots of the Urban Play Framework, the community of Burnt Oak in Barnet, London and Khayelitsha, Cape Town, South Africa (Real Play Coalition, 2020). As such there is little evidence for the efficacy of the framework.

The Urban Play Framework focuses exclusively on play's role in children's learning, and all assessments and actions are taken with the aim of increasing opportunities for learning through play. An earlier publication from Arup (2017), entitled *Cities Alive: Designing for urban childhoods*, which is part of a wider Arup project to rethink the design and management of cities takes a broader perspective. This document talks about children's infrastructure and their everyday freedoms as two interdependent concepts.[168] In addition, it outlines seven key principles, displaying a more balanced approach to the intrinsic and instrumental value of play:

'1. The quality of life experienced by urban populations, and particularly by children, will determine **our global future.**

2. Child-friendly urban planning is a vital part of creating **inclusive cities that work better for everyone**.

3. Focusing on the needs of children can help act as a **unifying theme** for the promotion of progressive ideas and ambitious actions.

4. Children's infrastructure can help to **enhance the economic value and long-term viability** of the urban environment.

5. Providing multifunctional, playable space – beyond the playground – can enable everyday freedoms and create a **public realm for all ages to enjoy together.**

6. Interventions at the neighbourhood scale offer the greatest potential to create a children's infrastructure network that allows **safe and enjoyable journeys**.

7. Decision makers should be **opportunistic and strategic** and integrate child-friendly thinking into all aspects of city making' (Arup, 2017, p. 9, emphases in the original).

[168] See section 5.2.1.

The kinds of interventions identified that could make cities more child-friendly include:

- traffic calming measures and prioritising pedestrianisation, making streets fit for socialisation and play

- improving opportunities for formal street play projects through the closure of residential streets

- developing community gardens and intergenerational spaces

- improving and increasing the availability of playable space

- reactivating wilderness spaces and affordances for playful encounters such as public art

- a focus on multifunctional green infrastructure such as stormwater parks

- playful cultural and heritage sites

- multi-use community spaces

- supporting an increased sense of ownership through opportunities for co-creation.

Also recommended is supporting children to carry out neighbourhood mapping work to gain insights into the opportunities and barriers they experience (Arup, 2017).

Cities Alive: Designing for urban childhoods has proved a popular document and helps to make the case for a child-friendly approach to urban design and planning. However, it has been critiqued for an overly narrow focus on design (see, for example, Voce, 2018). Whilst the publication is a welcome challenge to the erasure of children in urban planning generally and a move away from focusing only on playgrounds, it also overlooks other aspects of child-friendly environments, for example children's services and the more social and political aspects of spatial justice for all children, for example through gentrification measures that can exclude and discriminate against poorer families (Voce, 2018).

UN Committee on the Rights of the Child General Comment no. 17 and the principle of play sufficiency

In 2013, the United Nations Committee on the Rights of the Child published General Comment no. 17 on Article 31, which includes (but is not limited to) the right to play. Recognising the poor recognition of Article 31 rights led the committee to issue guidance on the importance of play for children's wellbeing and development and to provide more detail on governments' obligations to respect, protect and fulfil children's right to play. The General Comment notes that where governments have addressed children's right to play, this has usually been in the form of specific and separate provision, and they argue:

'Equally important is the need to create time and space for children to engage in spontaneous play, recreation and creativity, and to promote societal attitudes that support and encourage such activity' (United Nations Committee on the Rights of the Child, 2013, p. 3).

The General Comment outlines the conditions necessary for play to emerge, which broadly consist of a range of interrelated social, economic, cultural and spatial factors, including freedom from stress, exclusion and prejudice; non-toxic and non-harmful environments; and sufficient time, space and permission to play. The committee urges governments to introduce legislation in support of Article 31 rights, adding:

'Such legislation should *address the principle of sufficiency* – all children should be given sufficient time and space to exercise these rights. Consideration should also be given to the development of a dedicated plan, policy or framework for article 31 or to its incorporation into an overall national plan of action for the implementation of the Convention. Such a plan should address the implications of article 31 for boys and girls of all age groups, as well as children in marginalized groups and communities; it should also recognize that creating time and space for children's self-directed activity is as important as the provision of facilities and opportunities for organized activities' (United Nations Committee on the Rights of the Child, 2013, p. 20, emphasis added).

To our knowledge, only two national governments have so far introduced such legislation. One is the Welsh Government, through its Play Sufficiency Duty, part of the Children and Families Measure (Wales) 2010. The other is the Scottish Government, through the Planning (Scotland) Act 2019, which incorporates play sufficiency assessments into the Scottish Government's National Planning Framework 4, finalised in 2023 (Scottish Government, 2023). In addition, some English local authorities have been undertaking play sufficiency assessments of their own accord, although there is no such English legislation that requires this of them (Ludicology, 2019). The Dublin Play Strategy (Dublin City Council, 2022) has also adopted play sufficiency as 'a key principle for the ongoing development and assessment of a citywide play infrastructure' (p. 9).

Given that the Welsh Government's Play Sufficiency Duty has been operational for ten years, there is a greater body of literature on this than more recent developments. The duty itself, and how it fits with the Welsh Government's broader rights-based approach to policy for children, is introduced in chapter 2. To summarise, the duty requires local authorities to carry out a detailed Play Sufficiency Assessment every three years in line with statutory guidance (Welsh Government, 2014), and to produce an action plan (based on that assessment) which is then reviewed each year. In carrying out the assessment, local authorities are required to address nine 'matters', to consult children and to work across professional departments. The duty is a bold step, as voiced in an early version of the statutory guidance:

'What we want to achieve: time, space and permission to play. We want Wales to be a country where children are increasingly seen outside enjoying the benefits of play. We want to create a play friendly environment which provides time, space and permission for children to play. This will need parents, families and everyone in the community to recognise that play is of great importance in children's present lives and for their future development. We wish to promote positive attitudes towards children's right to play freely in their communities. This will need all these groups, together with Local Authority elected Members and Officers; and other decision makers and providers across many policy areas, to work together to remove barriers to children's play and make a real difference for children in their own streets and communities' (Welsh Government and Play Wales, 2012, p. 4).

Such a statement shifts playing from being the preserve of those responsible for public playgrounds or staffed provision to including all those who influence both service provision and the broader public realm, the institutions of childhood and the policy frameworks that influence children's ability to realise their right to play (Lester and Russell, 2013a, 2014a).

The concept of play sufficiency has been described as a lens through which to consider how a range of factors might be re-imagined and re-arranged to create more favourable conditions for playing (Tawil and Barclay, 2020). Both the Welsh Government (2014) and the United Nations Committee on the Rights of the Child (2013) acknowledge the multi scalar interrelationships between factors affecting the sufficiency of opportunities for play, which include, but are not limited to:

- the quantity, quality and proximity of public open space

- the layout of residential roads

- the volume and speed of traffic

- parental permission, influenced by their fears and values

- the availability and quality of play provision and of other children to play with

- other obligations on children's time

- the attitudes of other residents

- practices within adult run services and institutions

- planning, transport, housing and education policies

- public liability concerns

- local and national media coverage (Tawil and Barclay, 2020).

A review of planning policy across the four nations of the UK by Wood *et al.* (2019) argued that 'Play Sufficiency, as first adopted in Wales and now Scotland, is a concept that can be adopted across UK jurisdictions, with Play Sufficiency Assessments and Action Plans a robust and child-centric tool for understanding children's human rights' (p. 49).

The cyclical nature of the Welsh Government's implementation of play sufficiency means that the annual update of action plans and triennial full assessments continually feed into each other (Tawil and Barclay, 2020). Collective wisdom[169] develops over time through these dual processes of account-ability and response-ability, with research being a core element of both (Lester and Russell, 2013a, 2014a; Russell *et al.*, 2019, 2020). Tawil and Barclay (2020) suggest that play sufficiency represents a continuous process of community engagement and participation, with children and adults actively involved as stakeholders, which, through research, action and evaluation can build an evidence base for community development (evidence-based practice). Play sufficiency can therefore be seen as an ongoing interrelational and co-constructive practice operating at micro, meso and macro levels, with the potential to change policies, practices and provisions within and across communities (Tawil and Barclay, 2020).

5.2.3 Making change possible: general lessons from practice

There are now several examples of local authorities taking strategic action in support of child-friendly environments, some dating back to the 1970s, although these examples remain exceptions and there is much more to be done (Brown *et al.*, 2019; Gill *et al.*, 2019). From these examples, a number of key elements surface that make implementation more effective. In summarising his international research, Gill (2021) identifies four building blocks of a child-friendly city (which can also apply in smaller settlements): liveable streets that are not

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[169] 'Collective wisdom' refers to the accumulated knowledge and experience that different actors contribute to the process, recognising that different people have different experiences and expertise, and that there are different ways of knowing. This includes professionals with expertise in different areas, and the intimate and situated knowledge children and adults hold about their everyday lived experiences (Lester and Russell, 2013a, 2014a).

dominated by cars, walking and cycling networks and a good public transport infrastructure that can support freedom of movement, playful public space, and liveable housing. To this he adds nine principles:

1. Embrace diversity, equality and inclusion

2. Build a shared vision and set of values

3. Involve children effectively

4. Focus on the neighbourhood scale

5. Get the right people and policies

6. Count what counts

7. Do not neglect regulation, management and maintenance

8. Be opportunistic

9. Develop supportive programming.

Much of this aligns with multiple research projects into the enactment of the Play Sufficiency Duty in Wales (see, for example, Dallimore, 2019, 2023; Lester and Russell, 2013a, 2014a; Russell *et al*., 2019, 2020; Wood *et al*., 2019). Key findings since the inception of the duty include but are not limited to:

• Policies are important, although policies across national and local governments need to be aligned (Russell *et al*., 2020). A recommendation in Russell *et al*. (2020) for the Welsh Government to undertake a policy mapping exercise of legislative requirements, statutory instruments and policy initiatives, to harmonise issues of play sufficiency and other associated policy concerns was carried out as part of the Ministerial Review of Play.

• Adequate funding for the processes of assessing and securing sufficiency of opportunities to play is crucial (Russell *et al*., 2020).

• A key success of the Play Sufficiency Duty has been the requirement for cross-professional working and a strengthening of partnerships within local authorities and with other stakeholders. It is common to find departments previously considered as unrelated to children's play now recognising their influence and engaging in discussions and planning (Lester and Russell, 2013a, 2014a; Russell *et al*., 2019, 2020). This has worked best where local authorities have 'the right people in the right place at the right time with sufficient authority, capacity, capability and consistency' to respond effectively to the duty (Russell *et al*., 2020, p. 9).

• The key role of advocacy and infrastructure organisations operating internationally, nationally and locally in supporting local authorities to deliver on the duty (Russell *et al*., 2020).

• Partnership working, both at national and local level, is noted as instrumental in delivering successful implementation across the 22 local authorities in Wales. This is largely due to the fruitful partnership maintained over many years and successive governments between the Welsh Government and the national organisation for children's play, Play Wales, which is routinely identified as being a key driver of the duty through support for local authorities and play sufficiency lead officers (Lester and Russell, 2013a, 2014a; Russell *et al*., 2019, 2020).

• Whilst varying across local authorities, the impetus for working across professional domains in both assessing and securing play sufficiency has resulted in improvements in professional development opportunities for both the playwork workforce and the broader play workforce (those implicated in various roles that support children's ability to find time and space to play) (Russell *et al*., 2019, 2020).

- The importance of involving children ethically in research to support play sufficiency assessments, with growing examples of creative approaches that can show the wealth of situated knowledge children have about their environments and how space, time and attitudes shape their everyday interactions. Such research has often challenged adults' habitual understandings and led to actions that do things differently (Russell *et al.*, 2019, 2020, 2023).

- The importance of research and evaluation into the effectiveness and impact of changes and of the Play Sufficiency Duty itself (Russell *et al.*, 2020).

- Overarching partnership groups responsible for monitoring and implementation of play sufficiency that hold in high regard children's situated knowledge and in combination with their combined professional expertise are developing a collective wisdom that represents a more nuanced appreciation of the production of space and adult actions towards more spatial justice for children (Lester and Russell, 2013a; Russell *et al.*, 2019, 2020).

- Where there are the right people in the right place, with sufficient authority, play sufficiency can be secured and developed through partnership work, taking on opportunistic opportunities and a willingness to engage in experimentation (Russell *et al.*, 2020).

At local authority level, these findings can be operationalised through Gill's (2021) 'hub and spoke' model for implementation. At the hub is at least one effective local authority officer, ideally with a political champion. The spokes then include:

'• a focus on residential neighbourhoods

- investment in spaces for play and socialising, and in mobility, taking in play spaces, other public spaces, streets and walking and cycling networks, to improve "children's infrastructure" at a neighbourhood level

- effective involvement (especially of children)

- clear links with progressive urban policies around public space and transport

- well-chosen measures and indicators' (Gill, 2021, p. 133).

What becomes evident is the importance of 'collective wisdom' (Lester and Russell, 2013a, 2014a; Russell *et al.*, 2019, 2020) both to inform changes and interventions and the evaluation of their effectiveness. The following section considers research on the impact of providing for play. A second, and major, source of collective wisdom comes from children themselves. This is considered in section 5.8.

5.2.4 Research on the impact of providing for children's play

There is a significant and growing body of literature on the broad topic of child-friendly environments (Jansson *et al.*, 2022), but we could find little academic research on the impact of any changes specifically on children's capability to play. Much of what does exist focuses on designated play provision or on interventions aimed at instrumental outcomes, such as increasing physical activity (see section 5.11).

Gill (2014a) argues that despite a lack of empirical evidence on specific interventions, it can be assumed that improving opportunities to play will also improve children's health and wellbeing and reap community benefits too:

'The improvement in opportunities for play is a valid outcome in its own right. There is enough empirical evidence for policy makers to be confident that initiatives that lead to improved play opportunities will also reliably lead to [these] wider benefits' (Gill, 2014a, p. 6).

Nevertheless, this does require research and evaluation into whether interventions do actually improve children's capability for play. Play satisfaction surveys like those used by local authorities in Wales in the course of producing their Play Sufficiency Assessments can provide a useful measure of changes over time, both at a local authority level and nationally when compared and combined, as was the case in Dallimore's (2019, 2023) pan Wales analyses. However, the repeat play satisfaction surveys undertaken as a part of the 2022 Play Sufficiency Assessments will have been significantly affected by the impact of the COVID-19 pandemic and associated mitigating measures on children's play, as in the example of one local authority where satisfaction levels continually rose over three previous assessments but were then found to have dropped significantly in the assessment following the UK lockdowns.[170]

In terms of child friendly environments, Gill *et al*. (2019) argue that:

'a shift in emphasis is needed, from process and participation to outcomes and impact, drawing on robust data and sound evaluations. Helpful though children's participation is, the best measure of progress is positive change in the everyday lives of whole populations of children'.

Bornat (2016) highlights the importance of post-occupancy research and evaluation of housing developments. Her research looked at 10 housing schemes across England that had all been completed within the last 20 years, most of which had included some social housing and several of which had used shared space principles for street layout. The methodology was observation over a period of time (totalling a minimum of 24 hours for each scheme), watching who used the space and how. They also created 'heat maps' of the spaces: the 'warmer' the area (using colours ranging from blue to red), the more accessible the space was. Key indicators of safety and accessibility included direct accessibility from homes, safe routes connecting spaces and spaces being overlooked (Bornat, 2016).

Digital tools are useful for quantitative data, including measuring roaming distance, number of spaces, time spent playing out, age of playing out, and how many people children know (Brown *et al*., 2019; Corkery and Bishop, 2020). Examples include SoftGIS systems (Kyttä *et al*., 2012) and the International Children's Accelerometery Database (Medical Research Council Epidemiology Unit, 2021). Other examples include the comprehensive GIS data used in Antwerp's Speelweefselplan ('playspaceweb'),[171] the 8 80 diagnostic tool, which offers measures for seeing how cities work for young and old people (8 80 Diagnostic, 2018) and Children's Tracks, described in a little more detail here. The Children's Tracks programme is administered through Norwegian schools where children over 11 years use Public Participation Geographic Information Systems (PPGIS) and digital maps to record their land use. The intention is that these maps feed in to local, municipal, regional and national planning processes,

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[170] See chapter 4, section 4.2.2.

[171] Described in more detail in section 5.9.1.

identifying areas that are used for informal play and children's mobilities when decisions are made about land use and development (Barnetråkk, nd). Children begin by mapping their route to school and then other routes and spaces they use in their leisure time. They can then use icons to evaluate spaces and to show what activities they engage in, with the option of adding comments. Individual maps are then combined for the whole class and submitted to planning authorities. This fairly tight framing of the production of children's knowledge about their neighbourhoods has been criticised, as has the difficulty of interpreting the maps if planners have not been involved in their compilation by the children (Martinsen, 2018). These three tools are designed to inform changes, as tools for account-ability and response-ability; nevertheless, when used over time they can also evaluate the effectiveness of changes introduced.

Gill (2021, p. 23) suggests ten strategic indicators for a child-friendly neighbourhood, which is also very likely to be a neighbourhood where children can play:

'1. I walk to school/local shops without an adult (from age X*).

2. I cycle to school/local shops without an adult (from age X*).

3. I go outside and play within sight of my home (up to age X*).

4. I feel welcome and safe outside, during the day and after dark.

5. I have access to natural green space in my neighbourhood.

6. I have access to an outdoor place in my neighbourhood that is peaceful and quiet.

7. My neighbourhood has lots of trees.

8. I have access to a choice of outdoor places in my neighbourhood where I can meet and spend time with friends and there are fun things for us to do, including places where I can test myself and take some risks.

9. I have access to an outdoor place in my neighbourhood where my extended family and friends can have a picnic.

10. I travel from my own neighbourhood to downtown areas on foot, by bike or by public transport (from age X*).

*age may differ in different cultural/national contexts'

Impact research on play provision

Gill (2014a) reviewed research on the impact of four types of intervention to provide play opportunities for school-aged children: initiatives to improve playtimes at primary schools, unstaffed public play facilities, supervised out-of-school play provision and street play initiatives. He found significant gaps in the evidence base, partly due to the difficulties in carrying out robust empirical research.

Alongside the assertion that play is an outcome in its own right, Gill (2014a, p. 6) offers the following summary of the benefits of these four forms of play provision:

- '• Play initiatives lead to improvements in children's physical and mental health and wellbeing, and are linked to a range of other cognitive and social developmental benefits. While evidence of beneficial outcomes is strongest for play in schools, it is reasonable to expect that they will also be seen in other contexts where children have comparable play experiences.

- • Families and communities also benefit from play initiatives – and want action to improve them. Play initiatives generate high levels of volunteering and community action. This finding is echoed by the consistently strong support for play provision stated in opinion polls over the years.

- • Play initiatives are associated with inter-related benefits across a range of health and developmental domains. These benefits need to be thought of as a whole rather than in a piecemeal fashion.'

Beunderman's (2010) review of the value of staffed play provision found that it makes a 'significant difference to children, parents and neighbourhoods' (Beunderman, 2010, p. xviii), in terms of extending the range of opportunities for children, giving children and families the confidence to use public spaces and that they are also integral to community networks. His research was qualitative in approach, looking for detail. Although there are several studies that take a quantitative approach to evaluating the impact of interventions, these tend mostly, although not exclusively, to be focused on schools and the effectiveness of interventions in increasing children's physical activity levels (Ardelean *et al.*, 2021; Gill, 2014a). Our search yielded two cost-benefit analysis studies on playwork services.

Matrix Evidence's (2010) study considered the economic benefits of adventure playgrounds and of after school clubs with playwork qualified staff. The study found that the economic value of benefits generated by an adventure playground or after school club with qualified playwork staff exceeded the costs by £0.67 million and £1.19 million respectively (over a 20-year period). The report concluded that for every £1 invested, an adventure playground generated £1.32 in social benefits, whilst an after school club (with playwork qualified staff) generated £210 (Matrix, 2010). The authors point out many caveats regarding the availability and reliability of the evidence, but suggest that the results are conservative and likely to be higher in terms of benefits to cost. Additionally, in terms of adventure playgrounds, the study only considered benefits in terms of physical activity and educational outcomes. For the analysis of after school clubs only educational outcomes were considered.

The second study considered the economic impact of playwork provision in Wrexham, and focused on the county's three adventure playgrounds' impact in terms of improvement to health through increased physical activity, educational attainment (with deferred benefits in terms of wage levels), reduced crime, reduction in state benefits claimed and impact on adult mental health. These were calculated over a seven year period, as this was the average length of contact children had with the playgrounds. The report concluded that, in terms of economic benefit, every £1 invested in playwork yielded £4.60 in immediate and deferred benefits. In addition, the authors note:

'A wider range of benefits connected with improving social capital were evident from fieldwork along with indirect impacts on potential reductions in domestic violence, drug and alcohol misuse. These could not be measured in economic terms as part of this study due the absence of local data or confidence in a sufficient level of attribution of the contribution to these by playwork' (The Means, 2016, p. 3).

5.3 Planning policy and placemaking

Many examples of interventions made to support children's play are instigated and developed through the presence, efforts and coming together of key individuals. Some of the best examples have emerged from local people taking action despite a lack of policy directives. Working opportunistically also remains important even where strategic plans are in place (Gill, 2021; Russell *et al.*, 2020). However, if paying attention to children and providing for their right to play is not placed on a statutory footing and adequately addressed in planning policy, reliance remains on individual planners to go beyond the statutory remit of their roles (Mansfield and Couve, 2020; Wood *et al.*, 2019). Such reliance is shown clearly in the example of what happened following deregulation of planning processes in Sweden given below (Mårtensson and Nordström, 2017).

Wood *et al.* (2019) provide a detailed analysis of the 'child-friendliness' of national planning policy and guidance in each of the four UK nations through the lens of children's rights, with particular attention paid to children's right to participate (both in the processes and outcomes of planning), their right to gather in public spaces and their right to play. They highlight the general invisibility of children and their rights in national planning policy and guidance (Wood *et al.*, 2019); for example, in England, the National Planning Policy Framework (NPPF) contains only one mention of children (RTPI, 2021). However, examples of more child-friendly approaches are beginning to emerge at national, regional and local planning levels. This includes Wales, which of the four UK nations is identified as currently offering the best support for child friendly planning approaches, although recent planning reforms in Scotland, including a play sufficiency duty, are also 'increasingly aligning with the child-friendly agenda' (Wood *et al.*, 2019, p. ii).

Due to the overarching Well-Being of Future Generations Act (Wales) 2015, planning policy in Wales is orientated towards improving wellbeing through the principle of 'placemaking', with the Play Sufficiency Duty acknowledged as a complementary tool in this process (Wood *et al.*, 2019). Placemaking is described as:

> 'a holistic approach to the planning and design of development and spaces ... focused on positive outcomes. It draws upon an area's potential to create high quality development and public spaces that promote people's prosperity, health, happiness and well-being in the widest sense' (Welsh Government, 2021a, p. 14).

The concept of placemaking can be seen as having developed in response to a growing sense of 'placelessness' where (often newly developed) built environments lack a sense of community, identity and character (Placemaking Wales, 2020). Such a sense of place emerges from both the physical form of a settlement and the activities and behavioural patterns that take place with in it, with the process of placemaking involving new developments, improvements to existing spaces 'or interventions ... such as events which help to create activity in a space' (Placemaking Wales, 2020, p. 8). Central to this process is the meaningful and consistent involvement of community residents in both the development and delivery of plans, as well as a radical shift towards a more sustainable transport hierarchy, promoting first walking and cycling, and then public transport over the use of motor vehicles (Placemaking Wales, 2020; Welsh Government, 2021e). This is partially, although not entirely, reflected in the recently introduced hierarchy of road users in the Department for Transport's Highway Code, where the principle is that road users more likely to be injured in the event of a collision are at the top of the hierarchy, namely: 'pedestrians, cyclists, horse riders and motorcyclists, with children, older adults and disabled people being more at risk' (Highway Code, 2022, Rule H1).

A synthesis of criteria within the *Placemaking Guide* (Placemaking Wales, 2020) reveals many qualities of good placemaking that align with the development of more child-friendly environments:

• mixed use developments that reduce the need to travel long distances;

• a variety of well distributed and multi-functional spaces that support different uses, increase biodiversity and are inviting to people throughout the day and evening;

• connections to nature at different scales including close to people's front doors, to be experienced as an everyday part of life, including through children's play;

• streets that prioritise walking, cycling and playing, with playing being visible, welcomed and normalised in streets and other spaces;

• places for incidental meetings including bus stops, school gates, local shops or on the street;

• places where people of all ages, abilities and backgrounds feel welcome and safe, and can take pride in where they live.

The placemaking guide also identifies issues to avoid, including: a dependency on private vehicles as the predominant mode of transport, spaces that people feel they have no permission to use, spaces targeted at one demographic only, and a lack of evening activity (Placemaking Wales, 2020). Given these criteria, the placemaking approach appears to address the constraints that traffic and private car ownership may impose on children's play and freedom of movement, as well as shifting away from the tradition of separating space for play from other aspects of the public realm.

'Parks and play spaces should be provided in appropriate locations, however, the potential for multigenerational play should not be confined solely to designated play areas. Indeed specific play areas may not be needed at all. If all public spaces are designed to be child-friendly they can accommodate a range of uses by all members of the community' (Placemaking Wales, 2020, p. 34).

To some extent such approaches are supported by other national planning guidance cited within the placemaking guide. This includes the Welsh Government's *Active Travel Act Guidance* which recognises that interventions to improve the attractiveness of walking are also likely to create environments more suitable for playing, and that walking routes can be enhanced through the inclusion of green infrastructure and informal spaces for playing (Welsh Government, 2021e). The *Manual for Streets* (Department for Communities and Local Government and Department for Transport, 2007, being revised at the time of writing) advocated over 15 years ago for a 'fundamental culture change in the way streets are designed and adopted' (p. 11) again emphasising the social functions of streets beyond the movement of motor vehicles. This includes 'enabling local children to walk and cycle unaccompanied from all parts of a development to a school, local park or open space' (p. 26), as well as the inclusion of 'pocket parks, play spaces, resting places and shelters' (p. 57) in street designs. The manual also states that provision for children and teenagers must be balanced with the 'detrimental effects of noise and nuisance that may result' (*ibid*.). Furthermore, as Forman (2017) identifies, take up of these guidelines by local authority highways teams has been low with up to 36% of new build schemes continuing to apply older and now outdated standards, meaning that many will have been designed without children in mind and may remain unsafe for playing (Wood *et al.*, 2019).

Also in England, findings of the Healthy New Towns Programme led by NHS England (which explored the 'how to' of healthy placemaking across ten demonstrator sites), informed the development of ten 'Putting Health into Place principles', including 'enabling healthy play and leisure' (NHS England, 2018). These principles are in turn embedded into *Building for a Healthy Life* (BHL) (Birkbeck *et al*., 2020). BHL, signposted by Placemaking Wales (2020), again promotes the play and place function of streets, whilst also advising against the segregation of play spaces by tenure, suggesting that such spaces should be located in a prominent position thereby encouraging residents to share space.

Both BHL and the *Placemaking Guide* also advocate for the integration of multi-functional, sustainable urban drainage systems into landscape designs, creating 'distinctive, attractive and useable green infrastructure' (Placemaking Wales, 2020, p. 34) that provide further opportunities for play and active travel. However, both publications also recommend avoiding 'leftover' land, land which is deemed to serve no obvious function, even though this overlooks the possibility of children co-opting such spaces in their play. In contrast, Kraftl and Hadfield-Hill (2018, p. 20) recommend designing in flexibility, including 'deliberately leaving parcels of land "unfinished"', as well as offering opportunities for communities to engage in further adaptations to space through the setting up of post-occupancy development funds.

Significantly, where Wood *et al*. (2019) questioned the previous incarnation of BHL (Building for Life 12) for its recommendation to avoid locating play areas directly in front of homes 'where they may become a source of tension due to potential for noise and nuisance' (Birkbeck and Kruczkowski, 2015, p. 7), no such statement is made in the updated version. However, Wood *et al*. (2019) also critique planning guidance produced by Secured by Design (SBD) and again referenced in the *Placemaking Guide* (Placemaking Wales, 2020). SBD is a UK police security initiative focused on designing crime reduction measures into the layout and landscapes of new developments, for example making the most of natural surveillance and minimising through movement. Whilst commending its aims, and acknowledging SBD's support for play provision, Wood *et al*. (2019) question the SBD's emphasis on play spaces having 'the potential to generate crime' (SBD, 2019, p. 17) and the need to enclose such spaces for security, with SBD promoting the use of fencing and single dedicated entrances (SBD, 2019). SBD also suggests that 'informal association spaces' should be located in such a way as to avoid residents having to 'suffer from noise pollution' or fear of harassment (SBD, 2019, p. 18). In contrast nothing is explicitly stated about the need for children and young people to feel welcome or safe in their communities, with such guidance at times appearing at odds with the aspirations of Placemaking Wales.

In addition to play sufficiency processes providing a 'robust and child-centric tool' for understanding children's rights,[172] Wood *et al*. (2019, pp. 48-49) make the following recommendations:

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[172] See UN Committee on the Rights of the Child General Comment no. 17 and the principle of play sufficiency in section 5.2.2.

'• Play, recreation, leisure and assembling in public space should be at the heart of what national planning policy promotes for children.

• Children's needs for movement and independence should be given central prominence in national planning policy.

• National planning policy in each UK nation should stipulate that children have a right to be included in planning decision-making. Guidance should also be available to planners to help them implement this duty.

• Governments across the UK should give appropriate training and weight to Equalities Impact Assessments (and equivalents) that include the specific needs of children as part of the "age" protected characteristic.

• National planning policies should explicitly acknowledge the differences amongst children and young people.

• National planning policies should endorse the design of new developments and of local and regional planning policy that aims for desirable social outcomes. Secured by Design guidance should be reviewed in light of child friendly principles to ensure alignment.

• Governments should set up clear links and mechanisms for collaboration between the policy spheres of planning, early years and childcare, play, education, housing and transport.

• Policymakers and professionals in planning should have networking opportunities with childhood and youth professionals to encourage collaboration, learn engagement skills, and to help them advocate for the rights of children.'

Beyond Wales, and at a more regional and local level, Wood *et al*. (2019) identify London, and in particular the boroughs of Hackney and Tower-Hamlets, as promising examples of more child-friendly approaches to planning policy and guidance in the UK. The London example is given below, followed by an example from Sweden on the impact of deregulating planning processes.

Making London child friendly and the London Plan

The London Plan is the statutory spatial strategy for Greater London that local authorities are required to implement. The current Greater London Authority (GLA) plan includes the requirement for those involved in planning and development to 'plan for improved access to and quality of green spaces, the provision of new green infrastructure, and spaces for play, recreation and sports' (GLA, 2021, p. 19). Throughout, the 2021 London Plan makes frequent references to ensuring provision for play, including in schools and housing developments. The plan also includes Supplementary Planning Guidance (SPG) on play and informal recreation, which requires authorities to include a needs assessment and audit plan of play and informal recreation opportunities and to produce an associated strategy. In addition, the London Plan states that development proposals likely to be used by children should increase opportunities for play, and access to play provision should be safe and enable children to move around freely. Housing developments should then incorporate play space for all children that:

'•	provides a stimulating environment

•	can be accessed safely from the street by children and young people independently

•	forms an integral part of the surrounding neighbourhood

•	incorporates trees and/or other forms of greenery

•	is overlooked to enable passive surveillance

•	is not segregated by tenure' (GLA, 2021, p. 227).

Prior to the 2021 London Plan being produced, the GLA commissioned Publica and Erect Architecture to research and develop principles and recommendations for making London more child-friendly, with a particular focus on independent mobility (Mansfield and Couve, 2020). The resulting publication, *Making London Child-friendly: Designing Places and Streets for Children and Young People* (GLA, 2020) has informed the London Plan, particularly the new SPG on play and informal recreation. It contains a review of the literature, case studies and recommendations. In the guide, 'independent mobility' is understood as 'the freedom to occupy and move around the public realm without adult supervision' (GLA, 2020, p. 22). Play and playfulness are seen as being inseparable from independent mobility, with playable space being integral to a child-friendly city.

The foreword from the Deputy Mayor states,

'A London that works well for children and young people will be a London that works well for all of us. Whether at the scale of the street, the neighbourhood or the city, we must move away from an approach that is just about "play provision" and embrace the potential of London's urban environment to plan and design spaces that put children and young people first' (McCartney, 2020, p. 9).

Key themes addressed in the publication include 'risk, health, supervision, the importance of third places',[173] (Mansfield and Couve, 2020, p. 33). From these themes, four interrelated lenses were developed: policy, participation, design and management.

Child friendly planning in Sweden: the impact of deregulation of planning processes

Mårtensson and Nordström (2017, p. 44), revisiting child-friendly urban planning in Sweden, suggest that 'children's relatively active lifestyles and related well-being' in Nordic countries can be attributed to child-friendly approaches of earlier, twentieth century planning regimes. However, more recently in Sweden deregulation of planning processes means the extent to which urban developments are child-friendly is dependent on case-by-case negotiation, with examples of children's concerns being side-lined and commercial interests taking over. Focusing first on Stockholm, Mårtensson and Nordström (2017) reveal a history of child-friendly urban planning

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[173] Third places are those places that are neither home nor school. See chapter 3, section 3.11.2 and chapter 4.

driven by a determined partnership of researchers, politicians, planners and architects, which resulted in 'an abundance of open space and extensive green surroundings' where access to nature and protecting children from traffic was seen as a priority (Mårtensson and Nordström, 2017, p. 40). Children were also offered 'parkplays', with trained staff taking care of children in public spaces, for a few hours, free of charge, every day. In landscape terms, this came to be known as the 'Stockholm Style' and formed the basis of country wide planning standards in Sweden. Staffanstorp, in southern Sweden,[174] is one such community to benefit from this earlier approach to planning, with a network of foot and cycle paths that afford children safe and easy access to schools and spaces for play (Mårtensson and Nordström, 2017). Consequently, this is also a place where children experience high levels of freedom of movement and associated daily physical activity compared to generalised trends in most other countries (Johansson *et al.*, 2011).

Deregulation of Sweden's planning structures in the 1980s has resulted in less consistency, and in Stockholm, politically liberal and commercial interests associated with building and reserving land for building have, since the early 2000s, eroded space for playing. Mårtensson and Nordström (2017) provide the example of a large and prestigious residential development in the centre of the city, where a lack of outdoor space for play has drawn criticism and caused problems for families. *Ad hoc* efforts to retrospectively carve out spaces for play from the already limited outside space available resulted in overcrowding. In response, parents have taken their children to places where they can play further away or have moved out of the development (Mårtensson and Nordström, 2017).

Elsewhere in Sweden, municipal planning approaches have resulted in a different response. In Malmö, a shared vision between politicians, planners and city landscape architects has again positioned children and young people as the driving force for development. Consequently, Malmö is reported as having been transformed since the early 1990s, from a 'gloomy industrial outpost' to a vibrant city (Mårtensson and Nordström, 2017, p. 42). This has included many research projects on the benefits of engaging children in nature, a long-term strategic programme for playground development in collaboration with residents, the 'greening' and remodelling of over 30 school playgrounds, and young children attending 'outdoor preschools' where they spend every day in a park, all year round (Mårtensson and Nordström, 2017). In one of the more disadvantaged districts, efforts are being made to reduce segregation and support greater social connections through the improvement of pedestrian and cycling infrastructure designed to link the suburb with the city centre (Mårtensson and Nordström, 2017). Also, in an attempt to encourage more girls to use outside spaces and address the domination of boys in sports facilities, girls aged 13 to 19 from the migrant population were involved in a participatory design process. The outcome was space located in a car park next to a shopping centre, with a stage, seating, and Wi-Fi accessible music system with speakers (Mårtensson and Nordström, 2017).

[174] Also discussed in chapter 4, section 4.3.5.

5.4 Planning for neighbourhood play

'The monolithic character of the children's playground has seemed symbolic of a collective failure to create equitable and inclusive urban environments. Invariably enclosed by fencing and dominated by manufactured swings, slides and roundabouts, the dogmatic principles of the playground and the archetypal contours of its design constrain childhood freedom, fail to meet children's developmental needs and reflect broader problems of social and spatial injustice' (Winder, 2023, p. 134).

Whilst the opening quotation for this section may appear extreme, it is a view that has been expressed by others for some time from Ward (1978) to Cunningham and Jones (1999) and Hart (2002). Despite this, designated spaces for play are an important element in the mosaic of many children's lives.[175] However, throughout much of the contemporary literature on child-friendly urban design, there is a shift away from only considering the provision of segregated play areas towards holistic approaches aimed at creating a more playable public realm (Arup, 2017; Bornat and Shaw, 2019; Gill, 2021). Such approaches do not preclude designated, or at least purposefully intended, places for playing, but rather seek to embed and connect them within a wider, more playable landscape, where children can experience greater freedom of movement and variety in opportunities for play (Barclay and Tawil, 2020; Krysiak, 2018; Mansfield and Couve, 2020; Stille, 2020).

'A truly child-friendly city should consider the entire urban fabric as a canvas for providing opportunities for children's play and independent active travel. For this to occur, a series of walkable child-centric networks should be overlaid onto the urban fabric, creating incidental opportunities for exploration, play and social exchange' (Krysiak, 2018, p. 16).

Doing this requires children's freedom of movement and outdoor play to be considered together, recognising that the extent of children's opportunities for play is influenced by the number and variety of spaces on offer, as well as children's ease of and safe access to such spaces, thereby enabling them to make use of what these spaces afford (Arup, 2017; Bornat, 2018; Kyttä *et al.*, 2018). This again turns attention towards children's everyday freedoms (Gill, 2020) and how their capability to play out and about in their local area may be constrained due to concerns about traffic and perceptions of neighbourhood safety (Bernard van Leer Foundation, 2019; Dallimore, 2019, 2023; Frohlich and Collins, 2023; Tawil and Barclay, 2020), highlighting the interrelatedness of municipal level policies and neighbourhood actions (Mårtensson and Nordström, 2017). Efforts to support children's play in the public realm must therefore be combined with strategies to improve pedestrian safety and the walkability of neighbourhoods (Krysiak, 2018). Indeed, research on the conditions that support children's play emphasises the value of car-free, shared and multi-functional public spaces, directly and easily accessible from homes, overlooked by dwellings, and connected to other such spaces by a network of traffic free routes (Arup, 2017; Bornat, 2016, 2018; RTPI, 2021; Russell *et al.*, 2020).

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[175] See section 5.7 for a review of the literature on designated play spaces.

A playable neighbourhood may therefore be conceived as numerous interconnected and indeterminate patches of green or other open space, that have some landscaping but where use is not overly prescribed (Lester and Russell, 2014a). Whilst children appreciate well-managed spaces, they also value spaces that are less managed or even apparently abandoned, where 'the lack of management was seen as positive for exploration, play possibilities and for the place to be children's own' (Jansson *et al*., 2016, p. 228). A key message here is that the quantity, frequency, variety and flexibility of such spaces matters (Barclay and Tawil, 2020a; Placemaking Wales, 2020), with evidence suggesting that where there is a greater number of playable spaces, children can negotiate who they share space with, thereby reducing tensions between different users of space (Barclay and Tawil, 2020). Equally important is protecting spaces children already use when playing (Mansfield and Couve, 2020).

Within such a playable landscape, well located designated play areas may provide landmarks and meeting places for both children and parents, with traditional play equipment often valued by both. Playground designers are increasingly moving away from the much critiqued 'kit, fence, carpet' approach incorporating more natural and irregular features, with the intention of offering children greater opportunities for risk-taking and non-prescribed manipulation (Woolley and Lowe, 2013). There is also recognition that spaces with a higher degree of naturalness make good places for play, primarily due to the adaptability they afford children (Bauer *et al*., 2022; Chawla, 2015; Wales *et al*., 2021). Here, again, efforts to support play can be combined with strategies to improve children's access to nature in close proximity to their homes (Bernard van Leer Foundation, 2019), including projects to 'green' urban spaces.[176]

Beyond the arrangement of space, planning and providing for play becomes concerned with weaving affordances for play into the urban fabric of neighbourhoods (Mansfield and Couve, 2020; Stille, 2020), encouraging and enabling children to 'play along the way', as well as playing in particular spaces (Bernard van Leer Foundation, 2019; Krysiak, 2018). This might include the installation of public art, playful landscaping, natural elements (for example, water features), singular pieces of play equipment, painted walkways and so on (Bernard van Leer Foundation, 2019). Such an approach again points towards the need for neighbourhood level planning. However, the successful realisation of such plans also depends on addressing wider structural issues associated with transport, the privatisation of space, political power, and people's participation (Arup, 2017; Danenberg *et al*., 2018; Gill, 2021).

5.4.1 Housing design

In discussing children's capability to play out in their neighbourhoods, the best starting point is on their doorsteps (Krysiak, 2019; Lambert *et al*., 2019; RTPI, 2021). This means considering housing design, particularly high-density housing (Krysiak, 2019).

'In either high- or medium-density developments, individual residences have little if any private outdoor space, and generally reduced access to outdoor areas that they control or have available for their exclusive use. As a result, residents have a greater reliance on accessible public open spaces. Providing quality shared public and semi-public spaces in higher density residential precincts and within a reasonable distance from home is increasingly vital, especially for families with children and young people' (Corkery and Bishop, 2020, p. 151).

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[176] See section 5.6.

Four examples are given here. The first is a well-established and documented development that was co-designed, and this is followed by more recent examples from England.

The example of Vauban as a child-friendly neighbourhood

Gill (2021, p. 24) offers Vauban, a district in the German city of Freiburg, as a possible example of the ultimate child-friendly neighbourhood. This master planned settlement was developed on the site of a former French military base that fell into disuse following reunification of Germany in 1990. Freiburg has a long history of environmentalism dating back to the 1970s, and the municipality set sustainability standards for the development in terms of energy efficiency, mobility/transportation and rainwater collection. A group of local activists emerged who were keen to work with the city using a citizen participation model for this sustainable development. The process was not without its conflicts, but the municipality supported the formation of a Vauban Forum, which co-ordinated a number of co-housing groups who worked with the municipality to design neighbourhoods according to environmental, social, economic and cultural standards. The size of the smaller co-housing groups, together with the council announcing the price of small packets of land up front, made the proposition unattractive to investor developers. The co-housing groups were given considerable freedom in terms of design, as long as designs met standards on density, building height and energy use (Coates, 2013). The development has also been described as 'the greenest area of the greenest city, Freiburg, in the greenest province, Baden-Württemberg, in Germany' (Thorpe, nd).

At the same time, a research study into children's 'action space' was commissioned by the City of Freiburg and carried out by the University of Freiburg and the Freiburg Institute for Applied Social Sciences (Blinkert, 1996). An action space is somewhere where children can play, and the research identified four characteristics:

- accessibility

- safety

- open to change

- the opportunity to interact with other children (Blinkert, 2004).

The research found that in spaces that met these characteristics, and that did not have negative qualities identified (for example, high levels of fast and parked cars, high-rise living, high levels of noise, lack of space for children), four times as many children played out unsupervised than in poor quality environments. The research made many recommendations to the commissioning municipality. One was on traffic, where the principle was one of prioritising *being in a space* rather than *moving through it as fast as possible* leading to a reduction in volume, speed and parking of traffic, the creation of traffic-free spaces, and providing good public transport.

Another recommendation was on the design of playgrounds. The research was highly critical of uniform design of what was later termed 'KFC' playgrounds (kit, fence and carpet) (Woolley, 2008). Blinkert (2004) highlights the need for rebalancing the relationship between order and chaos in children's playgrounds in favour of more chaotic elements. The recommendation was to rip out all the equipment and leave 'an empty site which is somewhat neglected and unkempt' (Blinkert, 2004, p. 106). The site should be reconstructed with children, landscaped with varying heights, planting should not be too precious, there should be materials for construction (bricks, stone, boards, wood), if possible, there should be a water source, and children should be unsupervised. The local politicians accepted in the main these recommendations (because they were cheaper, but also because they were more popular with children), and Blinkert (2004, pp. 109-110) notes:

'Whereas on a conventional playground one seldom could observe more than two or three children, watched by their anxious mothers, after the deconstruction and reconstruction of the new playgrounds, one can now observe 50 or more children in the same place – children who are loud and busy … These places are so attractive that an initiative of worried neighbors has been formed, citizens who feel themselves disturbed in their afternoon nap and who want a revival of the old and well-ordered playgrounds, because they were so nice and clean, so agreeable and quiet.'

What this meant for Vauban was that the design was very child-friendly: good transport links, cycle and pedestrian pathways, together with car parking set away from housing, providing safe freedom of movement for children. The neighbourhoods are designed in U-shaped blocks, creating play streets/home zones that cannot be used for traffic or parking. Deliberate high-density design also means more green space: the seven neighbourhoods are separated and joined by five resident designed parks that have the kind of play features described by Blinkert dotted throughout. The principle is that children should be able to play anywhere:

'The majority of the outside space is given over to green, child-friendly playable space, and the few roads in the district have a 5km/h speed limit. With the wide availability of green spaces, there are no set play areas and play can happen everywhere. Sandpits, climbing rocks, swings and other playing equipment are scattered across the neighbourhood. With the boundaries between gardens, streets, parks, and play areas removed, children have a far wider choice of spaces where to play. The idea underpinning this design approach is that play should be free and undirected by adults' (Shaw *et al.*, 2015, p. 61).

Co-housing in the UK: Marmalade Lane

Like Vauban, Marmalade Lane (which won the RTPI Jubilee Cup for Planning Excellence in 2020) is a co-housing development in Cambridge, consisting of 42 homes co-designed with future residents, with a strong emphasis on facilitating social interaction and developing a strong sense of community (RTPI, 2021). The development includes a 'common house' used and managed by residents with a communal kitchen, playroom and guest accommodation. The street outside has been designed as a 'linear community space for play and socialising' (RTPI, 2021, p. 33), with vehicles allowed in for drop offs but otherwise restricted to the periphery of the site. Significantly, to overcome tensions between local planning policy and the co-housing ethos, pre-application negotiations took place involving the local authority, the development company and the co-housing group. This included the local authority accepting a reduced number of car parking spaces per dwelling based on a survey of future residents' car ownership, with mechanisms to review attached to the planning permission (RTPI, 2021).

Goldsmith Street, Norwich

Given as an example of good practice by Placemaking Wales (2020), Goldsmith Street in Norwich was promoted as the first council housing project to win RIBA's coveted Stirling Prize in 2019 (Kafka, 2019). However, the project's status as 'council housing' has been challenged, both in terms of the status of the commercial company that built the development (owned by the city council) and secondly in terms of selection criteria and housing security conditions for tenants (Elmer and Dening, 2019; Elmer, 2019). A Freedom of Information request in 2024 to Norwich City Council has revealed that there have already been seven right-to-buy applications. At the time of the request, none of the homes had yet been sold under the scheme, and not all the applications will result in a sale (Barker, 2024).

After the original intention to sell the land to a private developer fell through in 2012 due to the financial landscape at the time, Norwich City Council held a competition to develop council-built housing consisting of highly energy efficient homes. The resulting 100 dwellings have been designed using German *Passivhaus* principles, with heating bills forecast to be 70% lower than a traditional equivalent build (Crowley, 2020). The development consists of 50 individual houses and 50 flats with a maximum height of three stories and all properties having their own front door at street level (Placemaking Wales, 2020). Car parking is on the edge of the estate, and over a quarter of the site is communal space. A wide landscaped walkway runs through the centre of the development, and back gardens of the terraced houses have secure ginnels where children can play together (RIBA, 2019).

King's Crescent estate regeneration programme, Hackney, London

This project has been described as the first building of new social-rent housing in the borough for 30 years (Wilson, 2018). It won the *Architecture Journal* Architecture Awards Editor's Choice prize in 2018, partly because of its approach to community consultation. A Steering Group was established that was involved in every stage from design to external layout to the detail of interior design for each dwelling (Wilson, 2018). Again, however, the credentials for social housing have been challenged. Elmer (2017) points out that the original council estate had 632 council homes, and the redevelopment (which includes both refurbishment and new build) will offer 374 homes, of which 41% are for social rent, 10% 'affordable' and 49% for market sale (Karakusevic Carson Architects, 2022).

The design of the public spaces on the estate focused on a playable public realm for all ages. At its centre is a largely pedestrianised street that runs the length of the site. The street is designed both for moving through and dwelling and playing. There are natural features such as logs, rocks and water, a theatre and a large table, playful graphics, a hammock and a willow den, as well as seating (Krysiak, 2019; Wilson, 2018). Ground floor flats overlook the street, ensuring both passive surveillance and frequent use of the street as residents come and go (Krysiak, 2019). A public courtyard off this street offers more traditional play equipment, including a 'Multi Use Games and Performative Play Area' that is designed to be as open as possible for diverse users through its positioning alongside other play equipment (Billingham, 2020).

5.5 Safer streets and active travel

'Traffic growth has transformed the domains of urban childhoods. Over the last hundred years or so, traffic has emerged as a mortal threat to children who wish to get around their neighbourhoods, and a justified fear for parents who want to allow them to do this. Over the same period, the shift to car-centric neighbourhood planning has only reinforced the logic of declining childhood freedoms and indoor, sedentary lifestyles' (Gill, 2021, p. 4).

Traffic, both moving and stationary, is possibly the biggest barrier to spatial justice for children and their capability to exercise everyday freedoms and to play out in their neighbourhoods (Aarts *et al.*, 2012; Arup, 2017; Bourke, 2017; Ferguson, 2019; Russell *et al.*, 2020; Shaw *et al.*, 2015).[177]

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[177] This issue is reviewed in detail in chapter 4, particularly in section 4.2.6.

The current reliance on private car ownership and the associated risks posed by high levels of traffic and pollution is a systemic issue and a difficult challenge to overcome. Current UK government plans to shift towards ultra-low emissions vehicles (ULEVs) to meet carbon targets is deemed insufficient on its own, without associated lifestyle changes aimed at reducing both journeys and vehicle ownership (Brand *et al*., 2020). However, as Marsden *et al*. (2020, p. 2) note:

'The debate about the extent to which streets of different sorts are about facilitating movement, parking or creating good quality environmental spaces has been a critical tension since the 1960s.'

These debates reflect the power relations inherent in the production of space, and currently, priority is still given to movement of people and goods over places to meet and play (Russell *et al*., 2020; Wood *et al*., 2019). Generally, interventions to reduce moving and parked traffic and reclaim space for playing on residential streets depends on enabling people to make greater use of other forms of more active and public transport, which in turn requires changes to transport infrastructure (Brand *et al*., 2020).

Increasing the walkability and cyclability of neighbourhoods improves perceptions of safety, reduces serious collisions involving people and cars, frees up public space due to less traffic and less car parking, enables people to engage in more active forms of travel, reduces pollution, and increases sociability and connections, all of which is better for people's health and wellbeing (Audrey and Batista-Ferrer, 2015; Bernard van Leer Foundation, 2019; Hart and Parkhurst, 2011). There is a growing number of established international examples of radical changes made to transport infrastructure that prioritise walking and cycling over and above private cars, and a few are given below. These are often in cities where changes have been made in response to concerns associated with high volumes of traffic. Importantly, these interventions are often accompanied by further investments in public transport systems, developing joined up transport networks that enable both local and longer distance travel with less reliance on cars. As a consequence, when redeveloping transport routes and systems, it is important not only to focus on the very local but also consider connections across neighbourhoods and between different modes of transport (Hart and Parkhurst, 2011), which can in turn open up horizons for older children (Gill *et al*., 2019).

5.5.1 Change through social movements in the Netherlands

Effective changes come about through complex processes and emerge from interrelated events, political will, successful social movements, opportunism, chance and much more. One example is how urban-based protests and social movements in the Netherlands worked alongside supportive government actors to significantly reduce the dominance of cars, giving rise to three innovations: the *woonerf* (often called Home Zones in the UK), restrictions on cars in central business centres that gave priority to cyclists and pedestrians, and the 'bottleneck memoranda', a tool for people to report obstacles to cycling (Bruno *et al*., 2021). In the Netherlands, as in the UK, the rapid rise in car ownership in the 1960s brought with it a corresponding steep rise in traffic accidents for both pedestrians and cyclists, and particularly children. One of the protest movements, called Stop the Child Murder (*Stop de Kindermoord*), after the title of a newspaper article, grew from action by children and residents in an Amsterdam neighbourhood who began to reclaim streets as play spaces (Wright and Reardon, 2021). This movement attracted many who shared a common desire for more liveable and safer cities (Bertrand, 2022). Alongside this was a growing culture of democratic participation and counter-expertise, where action groups not only protested against the growth in motor traffic but used their lay expertise to suggest alternatives (Dekker, 2022). In addition, the 1970s oil crisis and subsequent fuel shortage revealed not only what city life could be like with fewer cars, but also how fragile the car-based transport system was (Bertrand, 2022; Bruno, 2021). These events are credited with leading to a substantial shift in public and political thinking. Some 50 years later, including

an initial 25 years of experimentation, a third of journeys involve public transport, a third involve walking or cycling, and a third use cars, with one of the key lessons being the need for cohesive cycling networks that connect to key amenities, services and spaces, and which separate cyclists from cars (Bertrand, 2022). The emergence of such infrastructure can be seen to be more than merely a question of physical design, and the importance of people as activators is reviewed in section 5.8.

The Dutch response to the growing dangers of traffic in the 1970s outlined here contrasts sharply with approaches in the UK around the same time, such as the 'one false move' road safety campaign of the 1980s. As Shaw *et al*. (2015, p. 68) suggest 'road safety measures should focus on removing danger from the road environment, not the removal of children from danger'. However, changes in planning policy in the UK[178] and recent amendments to the Highway Code (that applies to England, Scotland and Wales) suggest public attitudes and political will could gradually be shifting towards a more sustainable transport hierarchy.

5.5.2 Barcelona superblocks

Urban re-development in Barcelona, Spain over the last decade has emphasised sustainability and green strategies (Frago and Graziano, 2021). Barcelona is now in the process of radically reorganising urban mobility infrastructure and land use through its 'superblocks' (*superillas*) programme. In a city largely built on a grid system, superblocks cover an area of approximately 400m² incorporating a number of smaller blocks (usually nine in a three by three pattern), restructuring the typical road network by redirecting car and bus traffic around the perimeter streets. The interiors of these superblocks are then closed to motorised traffic and above ground parking (although still accessible to residential traffic, service and emergency vehicles), with the majority of space reserved for pedestrians and cyclists (López *et al*., 2020; Zografos *et al*., 2020). Importantly, superblocks represent a fairly low-tech form of urbanism, primarily involving the re-routing of traffic, with limited investment in hard infrastructure required and no need to demolish buildings (López *et al*., 2020). The intention is to build these superblocks (503 in total) across all areas of the city, with eight being implemented at the time of writing (Frago and Graziano, 2021).

Whilst the concept of superblocks dates back much further, and has appeared in other forms in other cities (López *et al*., 2020), the current programme in Barcelona was proposed by the city's Urban Ecology Agency in 2014, led by the biologist and psychologist Salvador Rueda who had previously set out an ecosystem approach to urbanism (Frago and Graziano, 2021). Objectives of this approach include increasing the number and diversity of people using public spaces, improving perceptions of safety (through continuous occupation of public space), and extending urban life throughout the day, evening and night (Frago and Graziano, 2021). The superblocks programme is explicitly integrated in Barcelona's commitment and action plan to address climate change (Frago and Graziano, 2021). However, it also aims to transform many aspects of urban living by improving air quality, reducing noise, improving pedestrian safety, supporting more sustainable forms of transport, enabling the greening of urban environments, increasing use of public space, and facilitating citizen participation in planning processes (Frago and Graziano, 2021; López *et al*., 2020).

Central to the superblocks concept is a mobility hierarchy that prioritises pedestrians, then cyclists, followed by public transport and cars (López *et al*., 2020). The city aims to reduce car traffic by 21% and convert much of the 60% of space currently occupied by car use into spaces for leisure and recreation, including children's playgrounds (Zografos *et al*., 2020). Projections suggest that even a 13% drop in traffic would free up some six million square meters of space (López *et al*., 2020). Health impact assessments on the implementation of superblocks also predict substantial economic savings due to increased life expectancy, improved physical activity, and an overall reduction in the burden of illness and disease (López *et al*., 2020; Mueller *et al*., 2020). However, equitable

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[178] See section 5.3.

distribution of these benefits would depend on implementation across the entire city (Mueller *et al*., 2020), as well as the simultaneous redesign and investment in public transport systems, necessary to reduce levels of traffic pushed out to the perimeter roads of these superblocks (Frago and Graziano, 2021; López *et al*., 2020). Without such improvements to metropolitan mobility, there is a risk that superblocks worsen the quality of life for those needing to commute longer distances (Frago and Graziano, 2021), which in turn emphasises the need for both neighbourhood and district wide transport planning (López *et al*., 2020).

Whilst the superblocks programme is welcomed by many and has received enthusiastic media attention both locally and internationally, there has been resistance (López *et al*., 2020; Zografos *et al*., 2020). Despite the climate crisis rapidly increasing the urgency of urban transformation, Zografos *et al*. (2020, p. 1) find that one of the key drivers behind opposition to such projects as the Barcelona superblocks is 'the everyday political struggle for municipal authority', as well as deeply rooted and entrenched approaches to urban development that are protected by powerful interests, often compounded by those seeking short term political gains. These combine to create pressure to complete projects within a political term, and makes it more difficult to get plans past other political parties with whom power may be shared (Zografos *et al*., 2020).

While many residents are in favour of this urban renewal, there are counter narratives and resistance from some to what they see as the aggressive imposition of superblocks. This includes criticisms of gaps in the supposedly democratic planning approach, complaints of increased drive times and traffic levels on the main routes around the blocks, as well as claims that noise and pollution levels have not reduced but been shifted to the perimeters (Grazino and Frago, 2021; López *et al*., 2020); a particular problem is the lack of visible advantages for those living outside the blocks (López *et al*., 2020). Similar concerns have been raised about the implementation of 'low traffic neighbourhoods' in the UK.[179] Furthermore, Frago and Graziano (2021, pp. 12-13) offer critiques of policy highlighting the need for more safe public spaces but then tending to support 'new forms of public space privatisation', a 'creeping securitisation rhetoric', and the prescriptive design of public space (including designated play areas) that can overprescribe the social functions of spaces, thereby limiting the potential of public spaces as sites of possibility. They also raise concerns about romanticised notions of harmonious, multicultural communities (Grazino and Frago, 2021) as well as risks associated with gentrification (López *et al*., 2020).

Urban transformation projects such as this need to negotiate socio-political challenges and seek to form coalitions around a common vision (Zografos *et al.*, 2020), with close collaborations between residents, planners and technical teams essential to addressing issues of spatial justice and dispelling myths (López *et al*., 2020). Additionally, radical changes are also being implemented as people are living out their everyday lives and trying to get on with 'business as usual' (López *et al*., 2020). These challenges also highlight that this is as much about transforming mindsets as it is changing the urban infrastructure (López *et al*., 2020), again emphasising the need for facilitation and activation alongside engineering works.

In the case of Barcelona's superblocks, initial strong opposition and relatively short-term conflicts have tended to give way to more mid-and longer-term acceptance, as more people experience the social benefits of such transformations, and more positive narratives emerge from those with direct experiences of the change (López *et al*., 2020; Zografos *et al*., 2020); although this in turn highlights that those who are yet to directly experience the benefits may be more likely to have reservations (a challenge given how long it will take to make such transformation across a whole city). This also emphasises that brave political approaches that can cope with struggles for authority in the short term may be needed to realise such aspirations (Zografos *et al*., 2020), with López *et al*. (2020, p. 12) emphasising that this is 'a long-haul model that is being made reality through gradual and shared implementation throughout the entire city'.

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[179] See section 5.5.3.

5.5.3 Low traffic neighbourhoods

There are similarities between the superblocks model and the implementation of Low Traffic Neighbourhoods (LTNs) in the UK. Both are concerned with low-tech solutions to transport infrastructure and management, and the redirecting of non-residential traffic away from residential streets. LTNs are based on 'filtered permeability', or modal filters (Laverty *et al.*, 2021; Welsh Government, 2021e). Sometimes these are enforced by physical barriers, and in other places by camera (Goodman *et al.*, 2021). Physical barriers such as bollards and planters are used to design a 'non-motorised advantage' into the built environment, enabling pedestrians and (usually) cyclists freedom of movement throughout the existing street network, whilst restricting car users and diverting them around residential areas (Finn, 2022; Hart and Parkhurst, 2011; Laverty *et al.*, 2021; Welsh Government 2021e). As with Barcelona's superblocks these residential streets remain accessible to residents with their cars but prevent through traffic, thereby making spaces within the LTNs safer and more pleasant for other public space uses, including more active forms of travel (Department for Transport, 2021b). For residents, the principle of reducing road traffic and reallocating road space for walking and cycling has high levels of support (Department for Transport, 2021b).

In the UK, most LTNs have been implemented in residential areas of larger towns and cities (with high densities of both people and cars), however, these relatively simple traffic management techniques could be transferred to a range of contexts including more rural settlements (Welsh Government, 2021e). Many LTNs were constructed across the UK, especially in London, through COVID-19 related emergency active travel funding (Aldred and Goodman, 2020; Aldred *et al.*, 2021; Finn, 2022). Like the superblocks, involvement of residents and local business owners is seen as essential at all stages of the planning and implementation process (Welsh Government, 2021e). Temporary and experimental LTNs are also encouraged, to trial and monitor impacts prior to more permanent construction, helping to alleviate local concerns, provide people with time to adapt to the scheme, as well as tweak designs (London Cycling Campaign and Living Streets, 2018; Welsh Government, 2021e). One criticism of LTNs is that they are often introduced in affluent areas and so benefit richer people. However, a study by Aldred *et al*. (2021) of new LTNs introduced during the special measures of the COVID-19 pandemic found that those living in the most deprived quarter of Output Areas were 2.5 times more likely to live in an LTN than those in the least deprived quarter, and that individual districts prioritised their more deprived areas. This may be partly because it may be easier to implement LTNs in more deprived areas with lower car ownership.

Waltham Forest in London is a particularly well-established area of LTNs. Here studies have found a range of benefits associated with living in an LTN and have helped to dispel some of the myths associated with them. This includes a consistent trend towards people living in LTNs becoming less likely to own a car,[180] reducing by as much as 20% over a three-year period (Aldred and Goodman, 2020). This is accompanied by a threefold decline in the number of injuries sustained on roads within LTNs, with no evidence of increased rates on boundary roads (Laverty *et al.*, 2021), as well as no change in response times for emergency vehicles, with delays associated with traffic calming measures offset by time saved for other reasons, particularly reduced traffic (Goodman *et al.*, 2021). Whilst it may take months for traffic patterns to settle, and some drive times may increase, approximately 15% of displaced traffic is also reported as disappearing due to fewer journeys made by cars and changes in routes taken (Huseyin, 2019; London Cycling Campaign and Living Streets, 2018).

Waltham Forest is also part of a wider area affectionately known as Mini Holland, thanks to a £100 million active travel programme, funded through Transport for London's healthy streets initiative, which has been in implementation since 2014 (Aldred and Goodman, 2020). Mini Holland is an example of neighbourhood

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[180] Importantly, Aldred and Goodman's (2020) study focusing on existing residents, excluded those who may have moved into the area because they wanted a less car dependant lifestyle.

infrastructure planning covering a 'small enough spatial area that a dense network of safe and integrated streets and spaces can be created' (Mansfield and Couve, 2020, p. 35). This programme has included a range of built environment interventions including 22km of cycle lanes, forty modal filters, two street closures and fifteen pocket parks, with long term management and maintenance plans in place (Mansfield and Couve, 2020). These infrastructure changes have been complemented by efforts to encourage particular groups of people to take up cycling, road closures between certain times of the day, and 'cracking down' on commuter parking (Huseyin, 2019). According to the Deputy Leader and Cabinet Member for Transport in Waltham Forest, success has also come from broadening the initial focus on cycling, to pay greater attention to pedestrians and other ways in which children may get around, such as scooting (Huseyin, 2019). Significantly, despite some strong resistance from a vocal minority, including failed political and legal challenges, the programme has increased children's freedom of movement, as well as rates of active travel, and the numbers of children cycling to school (Aldred *et al.*, 2019; Huseyin, 2019).

5.5.4 Play streets[181]

The street has always been a contested space for children's play, particularly for working class children. In the early days of urbanisation, it was often seen as a site of moral danger; later, its dangers were extended to motor traffic. The early days of the playground movement both in the UK and elsewhere were partly to remove children from the streets where they were considered to be both at risk and getting up to no good (Brehony, 2003; Hart, 2002). Despite these concerns, the street has been a place to play for many children. However, contemporary conditions (mostly traffic both parked and moving) mean that playing out is not as ubiquitous as it once was, although children do still play out where conditions support it (Russell *et al.*, 2020).

The steep rise in traffic and numbers of children injured or killed by cars from the 1920s onwards led to the introduction of designated play streets. It is interesting to note, given the current renaissance of local parent activism, that these came about both through 'bureaucratic top-down intervention but also a fiercely radical protecting of domestic space campaigned for by working-class mothers' (Ferguson, 2019, p. 21). The first play street legislation was enacted in 1938, after several local initiatives, with play streets running until the 1970s, when the increasing power of business interests and car owners over local mothers led eventually to their demise (Cowman, 2017).

In the intervening period, barriers to children playing on the streets have grown:

'In a nutshell, since 1980, car ownership and traffic volume have both more than doubled … and residential streets have become so physically and psychologically dominated by cars that people – and children in particular – have been pushed out of the space … We know that it is real traffic danger, not imagined "stranger danger" that is parents' main concern …, contrary to what the media would have us believe' (Ferguson, 2019, p. 22).

In more recent times, there has been a growth in projects aimed at reclaiming streets for children's play, through roadscaping, street play projects, play rangers, and local residents' action. The ideas here are steps towards more sustainable solutions, and, according to a 2019 poll commissioned by Living Streets there is still a long way to go. The number of children playing out on the street has declined further over the last decade (a period where many interventions have been made to address the situation), and almost three quarters of parents of four to eleven year-olds felt that traffic had increased in their streets (Living Streets, 2019).

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[181] Some parts of this section are reproduced from Russell *et al*. (2020) with some light amendments.

Globally, there are now many initiatives supporting temporary road closures on residential streets so that children can play, including in Canada, USA, Australia and many European countries (Umstattd Meyer *et al.*, 2019). Belgium, for example has a long history of play street provision albeit a different model to the one commonly seen in the UK. Typically, operational during school holidays, sometimes for one day a week, sometimes for seven consecutive days, and for slightly longer periods of time, for example in Ghent, they run from 2pm until 7pm for a maximum of 14 days in the summer holidays (D'Haese *et al.*, 2015; Gill, 2019). In Quebec, Canada, a father in Beloeil, a suburb of Montreal, whose son had been given a ticket by the police for playing street hockey and breaking anti-noise bye-laws, complained to a councillor, who remembered fondly his own days of playing street hockey. Agreeing that this was not right they began a project 'in my street we play' (*dans ma rue, on joue*) beginning by altering local anti-nuisance byelaws to allow for free play in the street. In 2017, the Quebec National Assembly adopted a law granting municipalities more autonomy, including 'the power to permit free play in the streets' (Peritz, 2019). By 2019, there were 48 residential streets designated as free play zones, with 30kph speed limits and signage asking motorists to slow down and stating free play is permitted between 7am and 9pm.

Play streets in the UK are supported by Playing Out, described on their website as a 'parent and resident led movement restoring children's freedom to play out in the streets and spaces where they live' (Playing Out, nd). Playing Out was started in 2009 by two mothers who had no knowledge of the previous history of play streets but who were concerned about their own children's lack of opportunities for just playing out the way they had done. They began with an experimental session on their own street, having gained local authority permission and neighbour support.

'This first session was a lightbulb moment. Given the opportunity to play safely outside their own front door, with no "activities" provided, children came out in surprising numbers … and played more actively and joyfully than we had thought possible. Adults of all ages also came out to socialise and reminisce about their own childhood. We knew – and others agreed – this was an idea worth pursuing' (Ferguson, 2019, p. 24).

From this initial session, the movement grew steadily, piloting six other Bristol streets to begin with, and then, with growing interest from councillors, working with the local authority to establish Temporary Street Play Orders (TSPO). These TSPOs allowed residents to apply for temporary street closures for a whole year for regular sessions (up to weekly, but most play streets operate once a month). Whereas the Play Streets of the 1930s to the 1970s operated most days at specific times and were unsupervised, contemporary street play sessions are programmed for specific days and times and are stewarded at each point of road closure, usually but not always by residents, to either redirect or escort traffic. Parents are responsible for their own children. Often, neighbours come out into the street and chat, building connections.

The idea and number of streets grew steadily, and in 2011, the Playing Out Community Interest Company was formed to support and promote the movement. The website now has a blog and clear information and resources to support others to establish play streets in their areas. Playing Out was a key partner in a Street Play Project funded by the Department of Health and led by Play England, that ran from 2013 to 2016. At the end of this project, over 400 communities were holding regular street play sessions (Playing Out, nd).

Research, particularly that carried out by University of Bristol for the above Street Play Project (Page *et al.*, 2017),[182] has shown many benefits of the sessions, including improving children's health and wellbeing through an increase in physical activity, socialising and learning new skills such as riding a bike; stronger communities and a sense of belonging through engagement in the sessions and meeting neighbours; active citizenship through the involvement of residents; and longer term culture change such as an anecdotal increase in children calling for each other and being out on the street. These benefits are largely echoed in a broader review of studies on play streets (Umstattd Meyer *et al.*, 2019).

Perhaps one of the most significant outcomes from the campaign's growing movement, evidence gathering, good promotion, high media interest and national lobbying, over and above the large numbers of councils across the UK adopting a street play policy, is that in 2019 the UK government published guidance to English councils on street closure to support children playing out (Department for Transport, 2019a; Ferguson, 2019; Russell *et al.*, 2020). At the time of writing, Playing Out estimates that:

- '• Over 1,300 street communities have "played out" in 100+ different local authority areas across the UK

- • Most of these streets are having at least 12 sessions a year

- • Around 40,170 children and 20,085 adults have been directly involved on their street

- • 92 councils are now actively supporting the playing out model and many have specific street play policies in place' (Playing Out, 2022).

The 2021 residents' survey of Play Streets (Playing Out, 2021) continues to show the benefits for children's physical activity and literacy, supporting children's mental health and social interaction and confidence, particularly after the toll of lockdowns and restrictions in response to the COVID-19 pandemic. In addition, play streets build community connections and a sense of belonging and support. Those who had run play streets before the lockdowns felt that they contributed positively to how people on those streets experienced lockdown. Running street play sessions had resulted in several streets campaigning for more permanent changes to the street such as 20mph speed limits, zebra crossings and parklets (Playing Out, 2021).

Playing Out has also worked with Play Wales to develop resources for residents, local authorities and partners in Wales.

Hackney Play Streets

Commencing in 2012, Hackney Council in London worked in partnership with Hackney Play Association and local residents to provide both funding and support for those wanting to set up play streets projects, including through the employment of a play streets co-ordinator. There are now more than 60 play streets projects across the borough (London Borough of Hackney, 2022a). Three models of supporting play streets have been developed: a residential streets model (similar to the Playing Out model), a school street model and an estates model (more details are given below). Evaluation after one year (Gill, 2015a) found that street closures had a minimal impact on traffic, with an average of nine vehicles diverted or escorted through during each session. The evaluation also found significant increases in physical activity of those attending play streets projects and that people getting to

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[182] This research was part of a broader Department of Health-funded Street Play Project led by Play England in partnership with Playing Out, London Play, Hackney Play Association, Haringey Play Association, House of Objects, Leeds Play Network and Nottingham Playworks, running from 2013 to 2016.

know each other on the street increased the likelihood of children being allowed to play out even when there was no play street session, typified in this statement from a resident, 'I know virtually everyone in the road now. It doesn't feel such a scary place, and I am happier to let my children out to play or to call on their friends' (Gill, 2015a, p. 13). In addition, the project had helped to 'spread play street uptake beyond the initial pattern of the more affluent parts of Hackney to reach a broader demographic, including areas of disadvantage' (Gill, 2015a, p. 3).

Nevertheless, Gill (2018b) found that play streets were easier to establish and sustain in traditional streets and in their form as school streets (run by school staff and parents)[183] than they were on higher density housing estates, despite high levels of support for the idea from residents. The classic street play model, designed for traditional streets, raises challenges for housing estates in terms of gaining support from significantly more residents and also in terms of finding suitable sites for the sessions. The report offered two recommendations. The first was that Hackney Play Association should establish a new project looking specifically at adapting the model for high density estates. The second was that 'children's play opportunities should be an important part of the design brief when estates are being redeveloped and redesigned' (Gill, 2018b, p. 19).

More generally, supporting play streets in disadvantaged areas raises additional challenges, including gaining support from residents, the limits on time residents in such areas can offer, a sense of lower capabilities and confidence than their middle class counterparts as well as issues relating to linguistic diversity influencing confidence in engaging with often first language English bureaucratic systems, complexity of street layout in neighbourhoods and number of residents to coordinate for cooperation (Gill, 2017b).

Leeds Play Streets Enablement Project

Recognising that additional support is required to enable play streets in areas of deprivation, the Leeds Play Streets Enablement Project aimed to work with six identified priority areas, building on the City Council's play streets scheme launched in 2014 and contributing to Leeds' work on becoming a child friendly city (Stenning, 2023; Tawil *et al*., 2023). Despite the challenges faced, 25 play street sessions were organised, attracting hundreds of children and families. Some sessions were held on residential streets that were formally closed to traffic for the duration, others were organised in nearby informal spaces such as car parks and green space.

The obstacles faced by community organisers included questions of responsibility (legally and for addressing issues of safety and anti-social behaviour); anxieties about whether neighbours and local institutions would accept children playing in the street; conflicts between residents; the challenges of living and operating in areas where risky and anti-social practices were commonplace (including drug dealing, sex working, speeding cars); the everyday challenges of socio-economic deprivation; language and cultural differences; concerns about capacity, capability and social capital of residents to take on responsibility and organising of the session (Stenning, 2023; Tawil *et al*., 2023). These challenges could sometimes be mitigated through the involvement of community organisations (particularly in terms of being seen as taking a lead in organising the sessions) and actively building social networks and bridges, sometimes through the street play sessions themselves (Stenning, 2023). In terms of sustainability, the research recommended:

[183] See section 5.5.5.

'• A funded network of experienced individuals (within the council or within local community organisations) to support and enable resident-organisers as they establish and work to maintain play streets (including navigating conflicts and negotiating cultural difference);

• A peer support network, on Facebook or through WhatsApp, for resident-organisers to opt into to share concerns, experiences and ideas, in addition to any informal networks established by individual resident-organisers;

• Smooth and swift procedures for processing applications – delays increase barriers for busy, burdened parents and increase concerns about their ability to manage traffic on the street' (Stenning, 2023, p. 36).

5.5.5 School streets

Designated school streets restrict motor traffic outside primary school gates at drop off and pick up times. The first school streets emerged in Italy in the 1990s, spreading slowly to Belgium and other European countries and North America, increasing significantly during the COVID-19 pandemic. The first UK school street was in East Lothian in 2012 (Clarke, 2022). Today, by far, the largest number of school streets is in London (Clarke, 2022). Here, the first school street was launched in Camden in 2017, and by 2019 there were 90 across 20 London boroughs. During the COVID-19 pandemic, local authorities were encouraged to introduce measures to support active travel, leading to a huge rise in the number of school streets, which in London now stands at 511 (almost a quarter of all state-funded primary schools), with 80 more in the pipeline for 2022/2023 (Mayor of London, 2022).

Key drivers for school streets include improving safety, improving air quality, increasing active travel, encouraging independent mobility, fostering community connection and sociability and reducing traffic congestion (8 80 Cities, 2022), leading to them being described as 'the right idea at the right time' (Clarke, 2022, p. 24). In a review of the literature on the impact of school streets in the UK and Flanders, Davis (2020) found medium strength evidence for a reduction in all cases of traffic volume, both in the school street and neighbouring streets; medium strength evidence that active travel increased; medium strength evidence that there is strong support for school streets, which increases after a trial period; and strong and consistent evidence that traffic displacement does not cause significant road safety issues on neighbouring streets, taking successful mitigating measures into account.

A major motivation for the initiative in London was the need to cut air pollution, notably from nitrogen dioxide (NO_2), which was particularly high outside schools at drop off and pick up time, given that in London the school run accounts for an estimated quarter of peak time vehicle traffic (Thomas *et al.*, 2022). A study commissioned by the Greater London Authority (GLA) (Gellatly and Marner, 2021) found that nitrogen dioxide fell by 23% at participating school streets during the morning drop off. Similarly, an evaluation of Hackney's school streets pilot found a drop of 75% in tailpipe emissions (Mayor of London, 2022). In terms of the distribution of school streets in London, Thomas *et al.* (2022) argue that schools with high levels of air pollution, car dominance, deprivation and non-white populations should be prioritised. They found a complex picture of distribution, in that school streets tended towards deprived schools (measured by numbers of free school meals), but not in more deprived areas. School streets were underrepresented in schools with the highest levels of traffic and therefore pollution, partly possibly because of the difficulties of implementation on more main roads. From this perspective, school streets are inadequately addressing transport inequities.

In October 2022, the Mayor of London announced a further £69m of funding for London boroughs to introduce more school streets to counter air pollution and other dangers from traffic and to encourage active travel to school (Eichler, 2022). Despite this, the mayor of the London borough of Tower Hamlets, who made a manifesto

pledge to re-open roads, is allowing Experimental Traffic Orders that helped to create school streets (put in place by the previous administration) to lapse. On one school street, which also included a small play space partly funded by local residents, children and residents mounted a protest against the dismantling of the barriers and play space, climbing on the barricades to prevent workmen from removing them and gathering outside the school the following morning with placards carrying messages such as 'kids before cars' and 'safer streets for kids' (Muir, 2022; Grant, 2022).

5.6 Greening the built environment

'The lived experience of lockdown has highlighted the benefits of urban greenery for well-being, health and overall place quality and prosperity … Many of this commission's case studies described a local green space as "a lifeline" for the community during lockdowns, as a safe place to come together, exercise and play. The immediate opportunity now is to increase "little and often" greenery, the street trees or low-level planting that very often have the most measurable benefit on residential health and well-being because it is so frequently encountered' (Create Streets Foundation, 2021, p. 42).

A small example of the 'little and often greenery' suggested in this quotation is planting trees in streets. Street trees have been found to improve air quality, increase people's sense of wellbeing and reduce traffic speeds, although there is a strong correlation between low canopy cover (as a marker of environmental deprivation) and social deprivation (Create Streets Foundation, 2021; Trees for Cities, 2021). The Welsh Government's 'Plant!' scheme has, since 2008, planted a tree for every baby born or adopted, and since 2014 has also worked with the charity The Size of Wales to plant a tree in Mbale, Uganda (Natural Resources Wales, 2022).

Urban greening interventions are increasingly being used globally to address a range of environmental, health, social and economic challenges. There is an assumption that such interventions will benefit everyone. However, impacts can produce inequities such as green dispossession, green gentrification and displacement for low-income residents (Anguelovski *et al*., 2020). Traditionally, such injustices have been understood as operating across distribution (which areas attract what kinds of interventions and levels of management and maintenance), recognition (a lack of consideration of historical injustices across intersecting categories of difference) and participation/procedure (not working with all those affected by historic productions of space in imagining future interventions). Anguelovski *et al*. (2020, p. 1761) suggest that thinking instead about 'emancipatory, antisubordination, intersectional, and relational (feminist) urban greening interventions' can support urban greening in just ways through focusing on health and wellbeing and on children's play. Sites for play can, when well-conceived and responsive to marginalised groups, support community connections more broadly across intersections. They give the example of Parc Central de Nou Barris in Barcelona, where the park's design and infrastructure is integrated well into the area's working class social and historic fabric (Pérez del Pulgar *et al*., 2020).[184]

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[184] This example is discussed in detail in chapter 3, section 3.5.11.

5.6.1 Parklets

Parklets are small, often temporary spaces that reappropriate roadside parking spaces for community use (Living Streets, 2019; Schneider, 2017; Stevens *et al.*, 2022; Welsh Government, 2021e). While they are not explicitly measures taken in support of children's play, they are an example of how more generic actions in pursuit of sustainable urban development can also create capabilities for playing (Create Streets Foundation, 2021; Living Streets, 2019; Loukaitou-Sideris *et al.*, 2013; Stevens *et al.*, 2022). The idea began in San Francisco, USA as a piece of tactical urbanism, when urban designers 'rented' a parking spot and converted it into a mini park with living grass, a bench and a potted tree and withdrew to observe what happened. Within minutes, someone came and sat down and ate his lunch, and was soon joined by another person and they struck up a conversation. Through sharing the experience online, interest grew and municipalities have taken up the idea (Schneider, 2017). These parklets are often used in urban centres, and were popular during the COVID-19 pandemic, as they allowed people to gather outdoors in front of cafes and restaurants. However, they have also been used in more residential streets (Stevens *et al.*, 2022).

One example is in Hackney, London where a resident wanted to rent a parking space from the council to install a parklet. When she was told that the spaces could only be used by vehicles, she decided to build the parklet anyway. It proved popular, bringing people together and providing a space for children to play and even a book library (Create Streets Foundation, 2021; Living Streets, 2019). Although initially the parklet was 'evicted' by the council, it has since changed its policy and now supports parklets, with 18 officially approved parklets in the borough:

'Approximately 70% of our residents don't own a vehicle, yet the kerbside remains dominated by parking. Our valuable kerbside space could instead be used for something to improve the urban realm for all, rather than simply using it for car storage. Parklets are a means of repurposing a parking space on the street where you live, or near a business premises, for community or business uses rather than for the parking of cars' (London Borough of Hackney Council, 2022b).

5.6.2 Greening alleys and in-between spaces

As with many greening initiatives, the greening of alleyways and back lanes has often been motivated by environmental concerns, for example, stormwater management and reducing urban heat islands (Buckley *et al.*, 2017; Newell *et al.*, 2013). However, they are also promoted for other benefits such as housing revitalisation, regeneration, active transport and health and social benefits (Newell *et al.*, 2013). Such projects have been very popular in North American cities (Buckley *et al.*, 2017; Newell *et al.*, 2013) and in Melbourne, Australia (Global Designing Cities Initiative, 2016), but have also been introduced in some UK cities. For example, Groundwork in Manchester has worked in partnership with Ignition[185] to support groups of residents to 'green up' alleys and other forgotten or degraded space, offering online workshops on nature-based solutions (Giorgi, 2021). Another example is The Grangetown Safe Play Lanes project in Cardiff which is particularly aimed at creating spaces for children to play as well as greening back lanes (Grange Pavilion, 2021). Anguelovski *et al.* (2020) note that when introducing such initiatives in partnership with residents, careful consideration should be given to maintenance as many people will not have the time, knowledge, inclination or money to maintain the changes made.

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[185] Ignition was an EU funded partnership project involving local government, universities, NGOs and businesses aimed at developing 'innovative financing solutions for investment in Greater Manchester's natural environment' (Greater Manchester Combined Authority, 2022).

In terms of other small in-between urban spaces, Belgian NGO Kind en Samenleving, supported by the Bernard van Leer Foundation Urban95 project, has been working in Mechelen and Wilsele to make spaces in front of houses more play-friendly and to encourage playing out. They have run construction workshops with children and have built a pallet tree house, a tipi village, a play hill and a mud kitchen (Bernard van Leer Foundation, 2019; inVlaanderen, 2021).

5.6.3 Greening school playgrounds

Internationally, there is a growing movement to introduce more natural elements to school playgrounds to support children's play and also offer more formal outdoor learning (Chawla *et al.*, 2014; Dyment and Bell, 2008). Children have said that they like these changes (van Dijk-Wesselius *et al.*, 2018) and have been found to engage in a wider range of play forms (Dyment and Bell, 2008) with improved social skills, better creativity and less boredom and injury (Brussoni *et al.*, 2017).

Although the greening of school playgrounds was initially led by educators, it has increasingly been seen by urban planners as a way of managing climate insecurities such as extreme heat and flooding and as such are seen as part of urban resilience projects (Flax *et al.*, 2020). This is the case with the Oasis project in Paris, France which aims to 'green' schoolyards in the city through replacing asphalt surfaces with green planting and opening the spaces for public use out of school hours. The 2003 heatwaves killed 700 people in Paris (Urban Innovative Actions, nd), and the 2017 heatwave closed down many schools for three days (Sitzoglou, 2020). The density of buildings in the city causes a phenomenon known as an Urban Heat Island. In addition, climate change increases the risk of flooding from the river Seine. Greening school yards therefore provides a low-cost solution that can help with cooling and rainwater runoff, with the added benefit of providing additional community and play space out of school hours (Urban Innovative Actions, nd). Similar projects are also being carried out in Chicago, Amsterdam (Flax *et al.*, 2020), Malmö (Mårtensson and Nordström, 2017) and Baltimore (Buckley *et al.*, 2017). These examples add to evidence of the synergies between environmental sustainability actions and play-friendliness and play sufficiency.

5.7 Unstaffed play provision

'The idea of a "playground", in the sense of an open but delimited space, runs through the entire cycle of modernity ... As a control mechanism that can be traced back to the division of the city into separate – and thus controllable – spheres, the figure of the playground seems to appear and reappear over time, reminding us of the need for its reinvention, an urgent appeal to the work time / leisure time binomial that is fundamental to the life of the Western subject. The conflict between spontaneity, control, and the standardization of play, its relationship to reality and power, and its complex delimitation are just some of the debates with which this project engages' (Borja-Villel *et al.*, 2014, p. 9).

This opening quotation reflects the ambiguities and ambivalences that adult researchers and commentators show towards the separated spaces designated for children's play, ambiguities and ambivalences that have also been discussed throughout this review.[186] There is no doubt that designated public playgrounds are an important part of children's play lives (Murnaghan, 2019), especially for those who do not have access to gardens. This became

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[186] See, for example, chapter 2, section 2.3.1 and chapter 4, section 4.3.4.

acutely apparent during the lockdowns of the COVID-19 pandemic (Fitzpatrick *et al*., 2020; Green *et al*., 2022). The British Play Survey found that after playing at home (inside or outside), children spent more time playing in parks and playgrounds than other places (Dodd *et al*., 2021a). However, the Association of Play Industries (API) found an 'alarming decline in the number of playgrounds and in the amount spent by Local Authorities on play provision' in their Freedom of Information requests in 2017 and 2018, although such decline is now reported as having bottomed out (Association of Play Industries, 2022, p. 3).

Playground design in the UK has, over the last 15 to 20 years or so, undergone some significant rethinking, influenced by, and influencing, contemporary ideas about children's play and how to provide for it (Murnaghan, 2019; Voce, 2015a). In England, such changes were accelerated by the first phase of the English Play Strategy that commenced in 2008 (and which, in the end turned out to be the only phase, as it was halted by the incoming Coalition Government in 2010). This phase aimed to deliver 3,500 playgrounds, but it was also controversial, since many in the play movement felt the focus on designated playgrounds reduced understandings of play and sold children short (Voce, 2015a). More recent publications with regards to child-friendly environments have argued strongly for including and looking beyond playgrounds (for example, Arup, 2017; Bishop and Corkery, 2017; Gill, 2021; Krysiak, 2018). Nevertheless, the English Play Strategy focus on playground building and refurbishment allowed Play England to invest in a programme of researching and promoting good practice in the design of play spaces, which promoted more creative design thinking in terms of flexibility, use of natural features and risk (Voce, 2015a). The UK government, in partnership with Play England, published *Design for Play*, which identified ten principles for successful play spaces, which should:

- be 'bespoke'
- be well located
- make use of natural elements
- provide a wide range of play experiences
- be accessible to both disabled and non-disabled children
- meet community needs
- allow children of different ages to play together
- build in opportunities to experience risk and challenge
- be sustainable and appropriately maintained
- allow for change and evolution (Shackell *et al*., 2008, p. 13).

More recently, the Welsh Government's (2014, pp. 16-17) statutory guidance on the Play Sufficiency Duty lists the ingredients of quality play provision (including, but not limited to public playgrounds), stating that it should offer opportunities to interact with:

- other children
- the natural world
- loose parts
- the four elements
- challenge and uncertainty
- changing identity
- movement
- rough and tumble play
- all the senses.

Similar principles can be seen elsewhere, for example, in a report of Canberra's Better Suburbs Play Spaces Forum, which also include the principles of community connectedness and linking play spaces to other community facilities (DemocracyCo, 2018).

Beyond the theories of good play space design, Studio Ludo (2017) carried out in-depth observations of the use of sixteen playgrounds in London. In comparing these with playgrounds of similar size and population density in San Francisco, Los Angeles and New York, USA, Studio Ludo found that the London playgrounds were more popular and better used (with 55% more visitors), had fewer accidents despite designs that supported risk-taking, and were cheaper. The most popular areas were also those where children were most physically active, and were places for climbing and swinging, together with grass and sand. The London playgrounds also incorporated more natural affordances for play such as 'boulders, logs, topography, plantings, and trees' (Studio Ludo, 2017, p. 7), being less prescriptive than their USA counterparts. It also found that many of the playgrounds blurred the boundaries between the playground and the rest of the park, including grassed and 'passive' areas where adults could sit and relax. The authors suggest that such a 'dwell factor' (*ibid*.) accounted for the high proportion of adults present and a community feel to the playgrounds. Empirical research appears to support the theory of good play space design, given that Studio Ludo's recommendations reflected many of the principles outlined above:

'1. DESIGN FOR ALL AGES: Both passive and active spaces are important, blur the lines between play and park. And don't forget cafes and bathrooms!

2. PLAY EVERYWHERE: Provide "play affordances", such as boulders, logs, plants, and topography for inexpensive, but effective fun.

3. THINK OUTSIDE THE CATALOG: All playgrounds should have the top five: grass, sand, climbing, swinging, and sliding. Water and loose parts are another plus.

4. PLAYGROUNDS ARE FOR PLAY: Everything on a playground should be playable, including surfaces. Fun should be prioritized over safety and maintenance.

5. RISK IS A GOOD THING: The best playgrounds look dangerous but are completely safe, offering ways to play based on skill level, strength, and bravery' (Studio Ludo, 2017, p. 7).

However, the idea that playgrounds are 'completely safe' and that fun should be prioritised over safety runs counter to the key messages from the UK Play Safety Forum (Ball *et al*., 2002, 2008, 2012) which includes representatives from the Health and Safety Executive (HSE) and the Royal Society for the Prevention of Accidents (RoSPA). Here the message is one of dynamic risk-benefit assessment, recognising the impossibility and undesirability of aiming for complete safety and also the need to avoid hazards beyond children's control.

In what may appear a countermove, Billingham (2020, 2022) makes the case for multi use games areas (MUGAs) and sports cages. Such provision is often maligned, but Billingham shows how, when well designed and located, it is highly valued by a range of users. Billingham argues that cages should not be pitted against green space (both are important), and that far from representing enclosure, the see-through fences of MUGAs and cages 'enable maximally exuberant and energetic game-playing … Perhaps paradoxically, cages are places that young people can be free' (Billingham, 2020, p. 21). Nevertheless, such spaces can also be unsafe, dominated by older boys and young men, and have in some places become sites for grooming, violence and drug dealing. For such spaces to be successful, they should draw on principles of child-friendly neighbourhood design (Bornat and Shaw, 2019), that is, spaces should be car-free, connected, overlooked, and accessible. Make Space for Girls (2021) suggests

that often single space MUGAs can be dominated by boys, so dividing up the space can encourage use by more diverse groups. Billingham's (2022) research shows that MUGAs work best when actively supported both by the local authority and the community, and when key tensions are addressed, for example, clarifying who is entitled to use them when and for what purpose, who makes governance decisions, balancing structured and free play use, balancing risk and safety, and not 'gentrifying' them in the name of improvements that mean they lose their identity.

The success or otherwise of playgrounds depends on much more than their design, however. The broader spatial practices, histories and cultures of communities affects how children and families feel about them, experience them, and use them (Horton and Kraftl, 2018a, 2018b; Pérez del Pulgar *et al.*, 2020).

5.7.1 The turn to nature

Concerns about children's loss of contact with nature have been voiced by many (Charles and Louv, 2009, 2020; Edwards *et al.*, 2020; Frumkin *et al.*, 2017; Larson *et al.*, 2019; Louv, 2005; Moss, 2012) and the concept of disconnection from nature has also been critiqued as both romantic and anthropocentric (Kraftl *et al.*, 2018; Lester, 2016; Malone, 2016a; Rautio *et al.*, 2017; Taylor, 2017).[187]

The growth of nature playgrounds emerged, at least in Europe, as a response to both the constraining factors of manufactured play equipment standards and urbanisation processes that brought an increase in traffic (moving and parked) and in housing density in the 1970s and 1980s (Bourke, 2014; Verstrate and Karsten, 2016). Combined concerns about children's freedom of movement and the increase in sedentary behaviour, resulting in much reduced active outdoor play (Holloway and Pimlott-Wilson, 2014; Karsten, 2015), led to a significant rise in the nature play movement from the early 2000s (Verstrate and Karsten, 2016). In addition, nature playgrounds, and the initiative to support outdoor play in natural settings, cannot be seen in isolation from the wider socio-political issues and trends associated with climate change, conservation, recycling, healthy living, forest school and forest/outdoor childcare (Derr and Lance, 2012; Nedovic and Morrissey, 2013; Verstrate and Karsten, 2016) as well as what may appear more tangential initiatives such as 'free range kids', anti-helicopter parenting advocacy and heritage trusts that each see associated benefits of children's engagement with green and wilderness spaces (Chawla, 2006; Gill, 2014b). Finally, the growth in natural playgrounds, particularly in suburban areas, has been identified commonly as a result of the combined and coordinated efforts of the professional middle classes, often motivated by the range of factors identified above, who come together to form voluntary community advocacy groups and project working parties to campaign for nature playgrounds in their particular community, often in partnership with their municipality (Authier and Lehman-Frisch, 2013; Jarass and Heinrichs, 2014; Lilius, 2014; Verstrate and Karsten, 2016).

Verstrate and Karsten (2016), acknowledging the variation in exact definition of a nature playground, offer a useful description of the conditions that are invariably provided. First and foremost, the topography and wider landscaping of the terrain is seen as the fundamental play offer rather than traditional play equipment. There must be opportunities to play with water, often in various forms (streams, ponds, water pumps and waterways as well as mud and opportunities to transform the environment with that water (creating a mud slide on an adjacent mound or embankment or by building a dam, making mud pies).

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[187] These debates are reviewed in chapter 3, section 3.11.5.

Other key ingredients can include:

- stepping stones of some form to traverse waterways, and access otherwise water bound islands

- trees for climbing and shade and bushes for hiding in and for fruit growth

- other plants and shrubs, even vegetable plots

- the creation of habitats for creatures/wildlife

- the safeguarding or development of natural ecosystems, where natural processes of growth and decay are perceptible to the user

- fallen trees/logs, rocks and boulders for sitting and clambering on and playing with in combination with natural loose materials, making adaptation of the environment in play more possible by children.

Nature is at the forefront of the environment and the experience even when, as is often the case, a nature playground also includes a piece or some pieces of manufactured fixed play equipment.

5.7.2 Accessibility

Playground design can be based on normative conceptions of children's bodies, ways of being in the world and mobilities, thereby excluding disabled children (Brown *et al.*, 2021; Lynch *et al.*, 2018; Moore *et al.*, 2022). General Comment no. 17 (United Nations Committee on the Rights of the Child, 2013) explicitly recommends drawing on principles of universal design for play environments. Universal design was originally intended for a broad range of applications in the design of services and environments. The quandary for universal design when applied to playgrounds is how to incorporate both accessibility and challenge. Lynch *et al.* (2018) suggest how the seven principles of universal design might inform playground design in ways that embrace this quandary:

1. **Equitable use:** rather than making every piece of equipment fully usable for everyone, this is about designing for complexity and challenge in ways that can cater for a wide range of ages, sizes and abilities.

2. **Flexibility in use:** designing for variety in ways that can accommodate different preferences and play styles.

3. **Simple and intuitive use:** minimising unnecessary complexity whilst maximising play value through variety, including spaces for repetitive and simple play for those who enjoy it.

4. **Perceptible information:** integrating ways of helping all children navigate the space without stigmatisation.

5. **Tolerance for error:** taking a range of cognitive, perceptual, sensory, motor and emotional differences into account when balancing safety and opportunities for risk-taking.

6. **Low physical effort:** acknowledging that whilst much of playing is about the expenditure of effort, at the same time designs should minimise unnecessary fatigue in accessing pieces of equipment.

7. **Size and space for approach and use:** making items big enough to facilitate social participation as well as access.

These principles are not without significant challenge, particularly when other factors such as budget, safety standards and maintenance are taken into account (Lynch *et al.*, 2018). As Casey and Harbottle (2018, p. 37) note:

'On a play area it's unlikely that all children will be able to use every feature in the same way (and they don't usually choose to) but overall children should be able to access a good play experience in a welcoming environment.'

In terms of play provision for teenagers, Seims *et al*. (2022) argue that the usual 'trinity' of skate park, BMX track and MUGA tend to exclude those who prefer less hegemonic masculine forms of play. Research with teenage girls has shown that features such as swings, a stage for performance (including TikTok dances), seating, and design that facilitates sociability are popular (Make Space for Girls, 2021). Corkery and Bishop (2020, citing Owens, 2001), suggest that skateparks often serve as a default feature of public parks giving the impression that young people's needs have been accounted for, when in reality the primary intention behind their provision is to move skateboarders off streets and away from other road users. Consequently, such spaces often consist of 'unimaginative, "off-the-shelf" solutions located in out-of-the-way spots so as to be as unobtrusive as possible to local residents' (Corkery and Bishop, 2020, p. 159). Concerns have also been raised about the masculine design of such spaces and their tendency to be dominated by boys and men, at the expense of girls and other genders (Seims *et al*., 2022). However, participatory design processes can again result in more creative outcomes, better located and used by a wider range of people. Corkery and Bishop (2020) provide an account of one such project in a small, isolated town in Western Australia with a population of approximately 700. Here, following an intensive consultation process involving the local community, facilitated by a team of landscape architects and skatepark designers, the original intention to build a skate park was expanded to create 'a multi-functional youth space *plus* a skatepark' (Corkery and Bishop, 2020, p. 160). An 'ambassador' group of children aged five to sixteen were then involved in co-creating the design for the skatepark, and a programme of events to activate the new space, resulting in a space heavily used by large numbers of children throughout the day (Corkery and Bishop, 2020).

5.8 Change agents and advocates: the importance of people

Children's capability to play is a matter of spatial justice, both in the institutions of childhood and in public space, as has been argued throughout this review.[188] Such justice emerges from the ways that space is produced through the relationships among design of the built environment, legal and governance systems, and the ways these are entangled with political and social norms and everyday practices (Lester, 2020; Pyyry and Tani, 2019; Soja, 2010). As can be seen in this chapter so far, it is impossible to separate out the physical design of environments from spatial practices. In other words, people make a difference to children's capability to play.

This section considers the actions of people, adults and children, in taking actions towards co-producing spaces for play. Many of these actions seek to compensate for spatial injustices, with some acting as catalysts for further physical and/or social changes. However, these events and activities also have value in their own right, bringing people together to co-create times and spaces for playing. Often, physical changes alone struggle to effect change without some form of complementary activation, something that is recognised as an essential element of placemaking (Placemaking Wales, 2020). Equally, changes made to physical infrastructure that do not take account of their socio-material, historical and political context can fail to address issues of access and children's capability to play (Pérez del Pulgar *et al*., 2020). Furthermore, public spaces also require ongoing management and maintenance to ensure they remain welcoming and useable (Gill, 2021; RTPI, 2021). All of this requires the involvement of people, including those who instigate change, drive projects forward, coordinate efforts, bring people together, provide expertise, maintain momentum and more (Gill, 2022; Krysiak, 2019), which in turn requires a joined-up approach and partnership working across professional disciplines.

The section opens with a consideration of working with children in the process of spatial changes in support of play. It then considers the role of play advocates, and in particular those with a playwork background, in animating change, both directly and in terms of working in partnership with other adults.

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[188] See, for example, chapter 2, section 2.3.3 and chapter 4, section 4.1.5.

5.8.1 Working with children as change agents

The Play Sufficiency Duty requires local authorities to consult with children when drawing up their Play Sufficiency Assessments (Welsh Government, 2014). As a minimum, local authorities use an increasingly standardised survey, which yields useful results that show both cross-sectional and longitudinal change (Dallimore, 2019, 2023). Nevertheless, as Hart (2008, p. 10) argues, consultation is a 'very weak form of participation'. In their research into how to support local authorities in Wales to deliver on the Play Sufficiency Duty, Russell *et al.* (2020) emphasise the importance of working with children themselves, often through research using creative methods such as map-making, photography and walkabouts:

'In each of our three case study authorities, research with children was a starting point for actions to support children's play ... Such research focuses on the micro-detail of very specific neighbourhoods. There is ample evidence of the generic issues that support or constrain children's play; these methods help adults to pay attention to the specifics of *this* space at *this* time for *these* children, enabling specific responses' (Russell *et al.*, 2020, p. 10, emphases in the original).

The benefits of involving children and young people in the design and development of public spaces have long been recognised. The benefits include fostering children's sense of social inclusion and attachment, together with the development of public spaces that work well for people of all ages, abilities, ethnicities and interests (Derr *et al.*, 2017; Loebach, 2020). Such processes enable children and young people's access to influential adults with whom they might not otherwise meet, and it is often 'a revelation to many adults to see and hear how competently young people can contribute to these processes' (Corkery and Bishop, 2020, p. 162). Consequently, experiential learning often occurs for both the young people and adults involved (Corkery and Bishop, 2020).

However, while young people's participation should be systematically embedded in planning processes, such practices remain *ad hoc* at best. Reported barriers include lack of time, financial resources, knowledge and practical experience of how to involve children, as well as negative perceptions that it is unnecessary or that children lack the ability to make meaningful contributions, despite many examples to the contrary (Corkery and Bishop, 2020; Loebach, 2020).

Loebach (2020) offers a flexible participatory framework for children's participation 'grounded in children's rights and indicators of effective participation' (p. 192), through which children and young people can be 'genuinely positioned as co-researchers and co-designers of public spaces in their communities' (p. 168). Drawing on Chawla (2001), Loebach lists indicators of effective participation, including:

- working with and building on the knowledge, experience and connections of community organisations and existing structures that support children's participation;

- formulating projects based on children's interests and issues, with children involved in defining the goals of their participation;

- respecting children as 'human beings with essential worth and dignity' (p. 167);

- children's engagement being both informed and voluntary, with a fair selection of participants;

- children having real influence, playing an active and supported role in informed decision making;

- the process of participation resulting in tangible outcomes that benefit the children;

- transparency ensuring that children understand the reason for the outcomes;

- making opportunities for critical reflection and evaluation of the process.

Two examples from the UK of tools designed to support working with children to make changes to their environments, are offered here. The first, Voice, Opportunity, Power is from ZCD Architects (in partnership with Grosvenor Planning, the Town and Country Planning Association and Sport England) and builds on their experience of working with young people in the making and managing of their neighbourhoods. It is aimed at designers, planners, developers and sports providers and supports them to work with 11- to 18-year-olds in new build and regeneration projects. The toolkit uses mapping, walkabouts, interviews, photos, and videos to develop a manifesto and plan of proposals through an iterative and collaborative process, consisting of five sessions following a typical RIBA design programme. It aims to move young people from the periphery to the centre of urban design, works with their lived experience rather than simply asking what they want, goes beyond specific sites to a more strategic view of the public realm, embeds working with young people throughout the whole process, and aims to be democratic and inclusive (Voice, Opportunity, Power, nd).

The second example comes from Scotland and is a children and young people's version of the Place Standard Tool. The Place Standard Tool feeds into the Scottish Government's National Performance Framework via its Place Principle, which 'promotes a shared understanding of place, and the need to take a more collaborative approach to a place's services and assets to achieve better outcomes for people and communities' (Scottish Government, 2019). The Place Standard Tool is a way of creating 'meaningful, structured conversations around the complex issues within places, allowing local people, decision-makers and other interests a common platform to assess the existing and future potential of an area' (Scottish Government *et al*., 2020, p. 11). Two separate tools, one for children (aged five to twelve years) and one for young people (aged thirteen to eighteen years), were developed by A Place in Childhood in partnership with Play Scotland, having been commissioned by the Scottish Government on behalf of the Place Standard Implementation Partnership. The tools for children and young people also include guides for facilitators. The tool aims to help children and young people to think about the physical and social aspects of their neighbourhoods as a way of supporting children's participation in the planning, design and delivery of child-friendly environments (A Place in Childhood, nd). The tool asks 'How good is my place?' and the children's version has questions across themes of walking, wheeling and cycling; buses, trams, trains, boats; traffic and parking; streets, squares and buildings; nature – parks, trees, animals, plants; places to play; schools, libraries, shops and other services; jobs and places to work; homes, friends and neighbours; meeting and talking with people; feeling proud and part of a place; feeling safe; fixed, clean and looking nice; having our say and being listened to (A Place in Childhood and Play Scotland, 2022).

Over the past 10 to 15 years, developments in digital technologies have opened up new possibilities for involving children and incorporating data about their use of space into planning and decision-making processes (Corkery and Bishop, 2020). This includes public participation geographic information systems (PPGIS) which can add subjective, qualitative data to the 'overall collection of quantitative GIS data sets typically available to urban planners' (Corkery and Bishop, 2020, p. 152). Such systems potentially enable mass participation in the collecting and recording of spatial data associated with people's uses and experiences of public space, using commonly available and familiar technology such as smart phones and apps (Corkery and Bishop, 2020). This might include geolocated photographs and data on favoured places. Importantly, such data are not just of value to urban planners but also other professions working in the interests of children, including public health. In some countries (particular Nordic ones where these practices are more embedded), such data have become an essential part of the knowledge base for city planning, for example using softGIS methodologies (Kyttä *et al*., 2018). However, the influence of such data also relies on those who are in a position to effect change understanding and being able to make practical use of it, with institutional and professional knowledge currently lacking (Corkery and Bishop, 2020).

The fundamental ethical importance of tangible outcomes from children's participation is emphasised repeatedly.[189] Engaging with children, whether through research or other consultation and participation methods, needs to benefit the children themselves directly (Alderson, 2012; Cuevas-Parra and Tisdall, 2019; Derr and Taranti, 2016; Owens, 2018; Terada *et al*., 2018), and this requires the involvement of people who can actually do something with the information and ideas gathered, including municipal planners and designers of public spaces (Corkery and Bishop, 2020; Gill, 2022). As Bornat and Shaw (2019, p. 5) argue:

'Participation needs to be led by children's experiences of space. The expertise of children to be able to bring life and insight to a place through their stories and descriptions is invaluable to professionals working on urban development. The knowledge of children needs to be paired with the expertise of urban professionals in design and delivery. Engagement of children must focus on the lived experience not abstract concepts of urban design'.

In addition to directly researching with children, developing the capacity to pay attention to children's relations with public space can also make an important contribution to collective wisdom, in turn supporting actions to open up space for playing (Russell *et al*., 2023). Some of this is through observation, both formal and in terms of tuning into children on an everyday basis (Bornat, 2016; Bornat and Shaw, 2019; Chatterjee, 2006; Derry, 2021). In addition, it is possible to gain some understanding of children's use of space through the play traces they leave behind (Chatterjee, 2006; Gill, 2021; Lester and Russell, 2013a; Rautio and Jokinen, 2016; Russell *et al*., 2020; Wales *et al*., 2020). Barclay and Tawil (2020) give two examples, one of handrails on some steps that were 'polished to a shine' (p. 20) as a result of children hanging off and swinging on them, the other of a branch across a small stream (what the children called a 'river').

Working with children as change agents is crucial to effective change at both policy and neighbourhood level (Bornat, 2016; Bornat and Shaw, 2019; Brown *et al*., 2019; Corkery and Bishop, 2020; Gill, 2021; Loebach, 2020). There are several examples of changes made at hyperlocal level (Danenberg, 2018; Gill, 2022), but engaging decision makers has proved more difficult at municipal and policy levels (Bishop and Corkery, 2017; Gill, 2021). Commentators and advocates point out that the impact of children's participation on urban design more generally has been disappointing and that progress is 'happening at a glacial pace' (Bishop and Corkery, 2017, p. 4). Despite its powerful potential, the links between findings, policy and practice are tenuous, and 'too often research findings do not reach the right audiences' (Bishop and Corkery, 2017, p. 63), and participation projects involving children often 'fail to engage with cogs elsewhere in the system' (Gill, 2022).

As Brown *et al*. (2019, p. 4) argue:

'this does not mean that participation is irrelevant or unimportant – quite the opposite. But it does suggest that mainstreaming has not yet been achieved, and further work is needed.'

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[189] As discussed in chapter 3, section 3.3.5 on research with children.

Children and their rights and interests remain marginalised in the planning and delivery of most planned settlements (Kraftl and Hadfield-Hill, 2018; Mansfield and Couve, 2020), meaning that children have little influence over the design and construction of the built environment, with their involvement often tokenistic at best (Gill, 2020). However, children have to live with the consequences, with the poorest children often suffering most from bad urban design (Gill, 2020). Numerous studies have therefore called for children to be better represented in planning policy and guidance, with explicit recognition of their right to play, and approaches to providing for play better aligned with children's actual experiences of playing (Bornat, 2016; Bornat and Shaw, 2019). Exceptions to this have been where there are key change agents, often a well-placed municipal officer: 'with both knowledge and know-how about children's urban lives, and the ability to influence colleagues in charge of key local government functions such as transport and land use planning' (Gill, 2022).

Two international municipal leadership programmes have been established to respond precisely to this challenge (Gill, 2022). The first is the Urban95 Academy, which offers, in partnership with the London School of Economics, 'a six-week programme designed to help local governments develop urban strategies and systems that improve the lives of babies, toddlers and caregivers' (Urban95 Academy, 2022). The second is from Global Designing Cities Initiative (GDCI)'s Streets for Kids Leadership Accelerator programme, which 'brings together 60 changemakers from 20 global cities to participate in an eight-month virtual professional leadership program, followed by implementation grants and technical support for up to ten child-focused street projects worldwide' (Global Designing Cities Initiative, 2022).

We offer several examples of working with children to influence decision makers at municipal and local levels.

A Grangetown to Grow Up in

This research project was part of an established partnership between children and young people from Grangetown (a neighbourhood in Cardiff) and Cardiff University, the University's Community Gateway, Cardiff City Council's Child Friendly Cities team, Grange Pavilion and Grange Pavilion Youth Forum. It came about in response to the detrimental inequities experienced by children and young people during the lockdowns associated with the COVID-19 pandemic, with the aim of contributing towards a recovery plan. The project comprised four stages:

'1. co-assessment of neighbourhood quality through application of creative methods, such as mapping, drawing and child-led photo-walks, and which also includes an exploration of children's feelings and emotions as to how the pandemic-associated responses have affected their daily lives;

2. co-creation of a phased recovery strategy through model-making, with methods adapted to be age-appropriate;

3. co-building of one element from the recovery strategy with direct participation of CYP; and, lastly

4. co-creation of an accessible toolkit for planners with inputs from CYP, reflecting the learnings from earlier phases' (Khan *et al.*, 2022, p. 1).

One exercise, looking at places the children and young people liked and did not like, showed that the same places could feature in both lists, highlighting the complexities of children's spatialities. In imagining a future Grangetown they would like to grow up in, the research clustered into four main themes:

- clean and safe (safe and clean streets and neighbourhoods)
- playful (play lanes for young children, equipment, activities and clubs for older ones, play opportunities for girls and young women)
- green (active travel, more green spaces, better parks and playgrounds, more vegetation and biodiversity)
- inclusive (designing for disability, safe spaces for women, facilities and services for mental health, housing, unemployment and activities for older people) (Khan *et al.*, 2023).

The young researchers identified things that needed changing now, in three to four years and in more than five years. The ideas will inform Cardiff Council's Recovery and Renewal Strategy. The participants said that they valued the opportunity to talk about how the pandemic had affected them, and felt positive that the project would lead to real changes that they had influenced (Khan *et al.*, 2022).

Lleisiau Bach Little Voices

Lleisiau Bach Little Voices was a project that ran from 2012 to 2020, building on work by Funky Dragon (the Children and Young People's Assembly for Wales charity that operated from 2002 to 2014) and from 2014 managed by the Observatory on Human Rights of Children at Swansea and Bangor Universities. The approach was based on the UNCRC and developed a programme supporting primary school children as researchers to select issues of importance to them, choose and plan research methods, gather and analyse data, plan for age-inclusive co-production and impact, and support follow-up work (Croke *et al.*, 2021; Dale and Roberts, 2018). Mostly, the issues identified were of local relevance but had wider implications and impact and matched the wellbeing goals of the Well-being of Future Generations (Wales) Act 2015.[190] Play was high up on the list of themes of issues identified, and many of the projects the children worked on focused on what children can do with others in their own communities (Croke *et al.*, 2021).

One case study example was a school in Neath Port Talbot that chose to look at improving the local park. Using the results of an online survey, together with an inspection of the park, the group presented their findings at an action meeting, which included school staff, local authority staff and councillors and the local Assembly Member. Actions and follow up work included ongoing dialogue with local environment officials to make improvements to the park; working with the council play development officer to make improvements to play equipment and paint the buildings in the park; setting up a 'Play Heroes' group supported by the local councillor; as well as other broader actions and processes to keep the area tidy.

In addition to local work, the project also produced and submitted an alternative report to the UN Committee on the Rights of the Child in 2015 for the UK's fifth periodic examination and the report was presented at three different committee stages by young people supported by the project manager (Dale and Roberts, 2018).

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[190] See chapter 2, section 2.3.4 for a review of the literature on this act.

Growing Up Boulder

Growing up Boulder (GUB), established in 2009 in Boulder, USA, is a long-term programme intended to increase young people's participation in urban planning processes, and for their ideas to then be incorporated into city plans and policies (Mintzer and Chawla, 2020). It brings together academic researchers, city officials, community sector representatives, and young people. Whilst working to make all young people heard, GUB aims for 50% of those involved to be from underrepresented backgrounds (Mintzer and Chawla, 2020).

Motivated by a vision to make Boulder a child and youth friendly city, the programme began with the University of Colorado, The City of Boulder, and the Boulder Valley School District signing a memorandum to collaborate on involving young people in issues that affect them. These formal agreements, specifying each party's contribution, together with a balance of partners inside and outside of local government, is described as being critical to the process (Mintzer and Chawla, 2020). The programme employs two part time staff, a director and an education coordinator, located within the Community Engagement Design and Research Centre of the University. Again, funding for these dedicated programme coordinators, who drive the project forward and develop long term working partnerships, is seen as another critical aspect of the project (Mintzer and Chawla, 2020). However, securing sufficient funding for these staff posts has remained a challenge since inception. For the municipality, initial engagement came through the Department of Community Planning and Sustainability but other departments including Transport and Parks and Recreation have joined over time, as well as various community organisations who also contribute. Throughout its implementation GUB has combined a top-down and bottom-up approach, with an executive committee of leaders from partner organisations supporting with strategic direction, and a steering committee of educators, planners and not-for-profit representatives designing the work directly with young people.

In 2012, GUB shifted from a youth leadership board model, with annual events and action groups, towards working in school classrooms and after school projects, which proved to be more sustainable and engaged more young people (Mintzer and Chawla, 2020). Initially, GUB's short term goal was to carry out a few participation projects, with a longer-term aim of creating a culture where such involvement became 'mainstreamed and routine' (Mintzer and Chawla, 2020, p. 137). Now, each year GUB staff meet with city representatives to plan a programme of engagement for the coming year, working with educators to involve young people. Potential projects are suggested by city departments and partner agencies (for example the police) where they want involvement from young people. Those with longer term relationships with GUB tend to provide longer lists, compared to more tentative suggestions from newer partners. Due to capacity, only a small number of these projects can then be selected, with GUB staff and city representatives deciding which are most feasible and which are likely to have greatest impact and influence for both their communities and the wider city (Mintzer and Chawla, 2020). Each project has the same core features: mutually beneficial partnerships, capacity building, bringing participatory design and planning to young people, an approach anchored in children's rights, an investment in children from socially marginalised groups, and children seeing that their ideas have an impact (Mintzer and Chawla, 2020).

Lessons learned from the first ten years of the project are listed as:

'• Create sustained partnerships that make young people's participation in government business as usual

• Go where young people are

• Invest in capacity building with partners

• Use a wide range of communication methods to publicize how young people's voice has contributed positively to the community

• Create cycles of communication from young people to city decision makers and back again

• Make the impact of children's ideas on city planning and design visible through appealing graphics, 1 page summaries, and public plaques

• Put a process in place to assess the impacts of new city proposals on children

• Turn skeptics and adversaries into allies when possible

• Streamline processes to increase capacity and impact' (Mintzer and Chawla, 2020, p. 145).

Shaking the Movers

Shaking the Movers (STM) is a Canadian 'youth-led, youth-driven participation model' (Caputo, 2020, p. 331), created by the Landon Pearson Centre for the Study of Childhood and Children's Rights at the Carlton University in Ottawa. Each year workshops using the STM model are held across Canada, and each workshop focuses on particular articles of the UNCRC associated with public space design. These workshops are co-created and co-delivered by young people, with adults taking a limited supporting and resourcing role, with each event being attended by up to 40 young people aged eight to seventeen, and event budgets ranging from $5,000 to $250,000. Summary reports from these events are then circulated through a network of academics, researchers, policy makers and advocates working on behalf of children's rights. In 2013, STM workshops focused on children's right to play from which two key themes emerged: adults as allies, and access and accessibility. Children highlighted a range of issues that constrained their access to opportunities for play including adults' safety concerns, children's own fears associated with particular spaces, lack of resources and motivation, poverty, geographic isolation, marginalisation, bullying and time constraints. However, they also had a strong sense that adults could support their self-advocacy efforts and enable them to overcome these barriers (Caputo, 2020).

Antwerp's Speelweefselplan ('playspaceweb')

One example of the significant influence of a dedicated municipal officer working consistently over time comes from Antwerp, Belgium and concerns the ongoing development, started in 2006, of numerous networks of car-free cycling and walking routes connecting neighbourhood play spaces, schools and youth centres, supplemented with 'play offers' along the way. Antwerp is divided into clearly defined residential neighbourhoods, and the process begins with the officers walking through each neighbourhood to familiarise themselves with it, and uses the city's comprehensive GIS datasets to draw up an initial child-oriented plan for cycling and walking routes linking spaces that are important for children. The next stage is a public web-based participation process, aimed mostly at six to fourteen year olds. This process generates issues and ideas for public spaces and their connection, which are refined through further consultation. Key to the success of the networks are the city's comprehensive GIS data, a realistic management and maintenance budget, walkabouts and consultation, openness to innovation, and the officer's ongoing commitment over time (Gill, 2018, 2021).

Belfast city centre

Belfast is designated as a World Health Organisation (WHO) Healthy City. Since 1988 Belfast Healthy Cities, a partnership organisation linking Belfast with WHO's European Healthy Cities Network, has provided a platform for inter-disciplinary and multi-agency collaboration. This partnership includes two universities and local government agencies such as health, housing, planning and transport. Through this platform a child-friendly places programme emerged with the UNCRC being a key driver (Monaghan, 2019). From the outset an emphasis was placed on engaging younger, less often heard children using new and experimental approaches. Children aged eight to eleven were identified as the target group due to their growing engagement with the public realm. Participation models developed included a schools-based research project (recognising children are experts in their own lived experiences) and pop-up events to engage families in public spaces (Monaghan, 2019). More recently this experimental approach has been realised at scale with the temporary redevelopment of a neglected space in the centre of the city.

Opened in 2020, Cathedral Gardens is a £300,000 project designed to help bring communities together and promote shared use of the city centre. Children and families were again engaged in the design process, with features including parkour elements, unicorn grass and ramps enabling access to all areas of the site (RTPI, 2021). Public feedback has been positive, emphasising the value of welcoming children and their play into the city. It is intended that a further £30 million worth of improvements to the public realm will build on this project, with ongoing engagement of children identified as an integral part of future planning processes (RTPI, 2021).

The Mission, Queensland

Kreutz (2020) describes working with children in an Indigenous community in Queensland, Australia, noting how children's 'cultural values and meanings … are rarely reflected in the environments in which they live' (Kreutz, 2020, p. 289). A newly developed traditional play area on the fringe of a rural Aboriginal community had initially resulted in high use, but after three months it fell into disuse and disrepair following vandalism and destruction. Kreutz (2020) suggests that contributing factors included the isolated location of the playground, lack of provision for risk taking, and the prescriptive nature of equipment, with destruction of the playground seen as a sign of children's frustrations. In addition, the history of the community is an important factor, since it carries with it the injustices of colonial practices. Although the official name was Cherbourg, locals called it The Mission, a hangover from when it had been established first as a Christian mission by white settlers and then as a 'dumping ground' (Kreutz, 2020, p. 291) reserve for 44 tribes who had been uprooted from their lands and until as recently as the 1970s lacked full citizen status. The design of the town does not reflect the importance its residents place on extended family.

One year after the playground fell into disuse, children aged seven and eight were invited to take part in a co-design process, including a one-day workshop to engage them in reimagining their community's public spaces. Importantly, the lead facilitator had a pre-existing relationship with the community and sought permission from its Elders, relevant local organisations, the children and their guardians. The design process was then also developed in partnership with children, their families and representatives of the local council. This included child-led photography, semi-structured interviews with children and families, and a range of workshop games associated with urban planning, spatial design and managing budgets. Children then presented their ideas to each other and the local council (Kreutz, 2020).

Key themes to emerge were a focus on child-centred and intergenerational gathering spaces within the community, including the greening of school grounds, adding outdoor seating and lighting at the local sports complex, and providing amenities such as toilets and shelter at the playground. In their plans children also surrounded the playground with residential and retail units. One group of children from a lower-socio economic part of the town also took the more radical step of reversing the existing layout of buildings, locating commercial units on the periphery, and bringing abandoned houses into the centre. These abandoned houses were often used by children, either as dens or as places of safety for those from households with domestic violence, drug or alcohol abuse (Kreutz, 2020).

The meetings with the children were attended by councillors from the Cherbourg Aboriginal Shire Council. However, there was no budget for implementation. The children had been aware of this prior to the exercise, and although this raises ethical questions, the principles of the ideas from the children had the potential to influence the decision makers (Kreutz, 2020).

Examples from social housing projects

Two examples from social housing areas in England and Wales illustrate neighbourhood level approaches to working with children to design spaces for play. However, the processes involved also emphasise the importance of passionate lead actors, highly skilled multi-disciplinary teams, partnership working, opportunistic attitudes, and pro-active efforts to involve children. Significantly both examples emerge from play/community workers and landscape architects coming together through multi-agency professional development events, with further support provided by government agencies or NGOs.

The first example comes from a partnership between Sheffield City Council housing department and Sheffield University landscape architecture department, also working with CABE (the UK government's former Commission for Architecture and the Built Environment) and the local wildlife trust. Connections had been made through workshops held to promote cross-professional working as a part of the England Play Strategy. *Living with Nature* was a three-year Big Lottery funded project that aimed to 'improve the play value and biodiversity of a series of playgrounds and green spaces by working with children and communities in 24 social housing areas in the city of Sheffield' (Woolley *et al*., 2020, p. 210). The project worked with social housing residents and staff, firstly to draw up a play strategy and then to develop plans for a number of sites that aimed to go beyond traditional KFC (kit, fence and carpet) playgrounds. Whilst there was limited funding for physical improvements of space, the intention was that communities would apply for additional resources, and five years after the end of the project these communities continue to use and develop the sites. Of the 24 sites identified in the original play strategy, eight were prioritised for capital expenditure, with designs and maintenance plans developed for the rest (Woolley *et al*., 2020).

At the start of the project, observations in the spaces revealed how underused they were and led to an additional aim of re-engaging people with these places. Rather than using more formal design activities and workshops, the project focused on organising, and then helping children and communities organise, a range of playful and artistic activities in or connected to these spaces. These activities served two purposes:

'First, they supported the children and communities to remember, use, feel comfortable using, and enjoy the spaces. Second, the activities were used by the project team to observe how people, especially children, could use the spaces, and to have conversations with people of all ages to understand how they might like to use the spaces. Information gathered in this way informed the redesign of the eight priority sites' (Woolley *et al*., 2020, pp. 218-219).

The authors note that a key lesson from the project is the importance of partnership working and the need ` to recognise the commitment of key individuals in driving work forward.

The second example is from Tre Cwm, a social housing estate in Llandudno, managed by Cartrefi Conwy, a not-for-profit social housing landlord (RTPI, 2021). Here a £1.4 million environmental regeneration programme, with a neighbourhood wide planning approach, has transformed the public realm through a series of 47 relatively small scale but interconnected interventions. This has included improvements to walkways, extensive planting and creating playable spaces using natural materials, 'with a 14-metre caterpillar made from recycled traffic boulders,

and an unused parking area … transformed into a toddler play area' (RTPI, 2021, p. 37). These transformations also emerged from cross-professional connections made through the implementation of policy, in this case the Play Sufficiency Duty. Cartrefi Conwy's environmental development officer, who led on many of these improvements, has a background in landscape architecture. Whilst attending a regional event on play space design, facilitated by Play Wales and a network of play sufficiency lead officers across north Wales, the officer was both motivated by what they heard and had the opportunity to meet with Conwy's principal play officer. The working relationship that emerged encouraged the environmental development officer to think beyond designated play spaces and how affordances for play could be incorporated throughout the public realm. This was complemented by Cartrefi Conwy having a progressive and socially orientated organisational culture that supported innovation and creativity. A playwork team then began facilitating playscheme sessions on the estate, observing how and where children played as well as talking to them about potential improvements. The findings from this informal research process informed the design brief for spaces around the estate (Russell *et al.*, 2020).

Many of the examples given here would not have been possible without the particular people being well-established in their posts, the sustaining of the institutions and organisations they work for, the qualifications and experience these individuals hold, their complementary skill sets, their willingness to work together, their passion for involving residents in the design process, and their determination to see the project through (Russell *et al.*, 2020; Woolley *et al.*, 2020).

5.8.2 The contribution of playworkers to children's capability to play

In many of the examples in the UK, and especially in Wales, key advocates working on behalf of children have a background in playwork (Barclay and Tawil, 2020c; Russell *et al.*, 2019, 2020; Tawil and Barclay, 2020). This section focuses on the significant potential for playworkers to work as advocates for children's right to play (Patte and Brown, 2011; Stonehouse, 2015). In the UK, the playwork field is guided by the Playwork Principles, which state that the role of the playworker is 'to support all children and young people in the creation of a space in which they can play' (Playwork Principles Scrutiny Group, 2005). This has mostly been interpreted as a specific space within a playwork service,[191] but the Principles also recognise that playworkers 'act as advocates for children's play'. A small-scale survey of playworkers found that there was still broad agreement on this advocacy role (Newstead and King, 2021a). Such a role is arguably more important today given the constraints on children's access to the public realm and their capability to find spaces for play (Hart, 2014). Voce (2015b, p. 221) notes that 'advocacy work by the playwork community is a consistent and important thread throughout the development of play policy, not just in the UK but internationally'. Examples include the campaign for and development of the United Nations Committeed on the Rights of the Child General Comment no. 17; national policy across the four nations of the UK (Newstead and King, 2021b; Voce, 2015b), including playing a major role in the Play Sufficiency Duty (Barclay and Tawil, 2020c; Russell *et al.*, 2019, 2020); revitalising a play movement in the USA (Almon, 2017; Almon and Keeler, 2018; Voce, 2015b); and developing support for play in European countries through EU funding (Russell and Schuur, 2018; Voce, 2015b).

However, since the financial crisis of 2008 and the ensuing austerity agenda, national and local support for children's play and playwork has faced disproportionate cuts across the UK, but particularly in England (Children's Rights Alliance for England, 2016; Gill, 2015b; McKendrick *et al.*, 2015b; Voce, 2015b, 2021), having a long-lasting negative impact on what had been an extensive playwork infrastructure and qualifications system across England (Brown and Wragg, 2018). Funding for play in Northern Ireland, Wales and Scotland has also been subject to significant reductions as a result of UK government austerity policies, which have filtered down to the devolved nations and then to local authority level (McKendrick and Martin, 2015; Russell *et al.*, 2019, 2020). However, the

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[191] Discussed in section 5.9.

three devolved governments have retained a responsibility for children's play and each of the devolved nations still has a live play policy, influenced by playworkers (Newstead and King, 2021b) and a funded national non-governmental organisation (NGO) for play. Austerity measures also accelerated the established trend, begun in the 1980s, towards local authorities outsourcing their statutory responsibilities through commissioning (Bovaird and Loeffler, 2019). This shift has changed the landscape of not only provision for play but also those who work on behalf of children's play. While community and voluntary organisations have traditionally played a significant role in the delivery of both direct and indirect play and playwork services, the commissioning process has meant that an increasing number of community and voluntary organisations are taking on the role, often with reduced resources (McKendrick and Martin, 2015; Russell *et al.*, 2019; Voce, 2021).

The influence of the playwork sector has been particularly noticeable in relation to the Play Sufficiency Duty (Barclay and Tawil, 2020c). As Russell *et al.* (2020, p. 11) note:

'Those with playwork backgrounds and/or remits have repeatedly been the instigators or enablers for actions, pulling people together, developing collective wisdom, facilitating and developing responses to research with children, promoting the value of Play Sufficiency to relevant departments and organisations at national and local level.'

The potential for such influence has been significantly boosted by the requirement of the duty for cross-professional working. Children's capability to play is affected by a whole range of professional policies and practices, referred to as 'the play workforce' (Play Wales, 2020a), including 'those working in local and national government, town and country planning, highways, health and social care, education, community development and youth work as well as those elected to positions in Welsh Government, local authorities and town and community councils' (Play Wales, 2020a, p. 5). Playworkers are often at the centre of a growing network of people working to improve conditions for play, providing the expertise, networks and driving force required to bring about these changes (Barclay and Tawil, 2020c). Research by Russell *et al.* (2020) highlighted numerous accounts where those working on behalf of children's play had the knowledge, experience, passion and authority, coupled with the time, space and permission necessary, to instigate, inspire and nurture partnerships across professional domains. Some of the examples, mostly arising from the Play Sufficiency Duty, are summarised below.

Influencing national policy

The Welsh Government's approach to partnership working has enabled the fostering of key relationships between themselves and Play Wales, a third sector NGO that has played a pivotal role in the development of the national Play Policy and the play sufficiency legislation, guidance and support, and in the Ministerial Review of Play. As Russell *et al.* (2019, p. 33) describe, Play Wales' work to support local authorities to deliver on the Play Sufficiency Duty has included:

'Regional meetings to support local authorities with Play Sufficiency; commissioning and disseminating research; national reviews of local authority Play Sufficiency documents; commissioning professional development programmes; running a series of cross-professional conferences; developing playwork qualifications …; commissioning, writing and publishing information sheets and toolkits; and personal officer support.'

Developing policy on risk in children's play

Two examples are offered here of how playwork professionals worked at policy level to support those working directly with children. In Wrexham, a general disposition of risk aversion had been identified amongst practitioners who had expressed a lack of confidence in supporting children's risk-taking without the support and guidance of a clear policy. Partnership working supported by the play sufficiency lead officer resulted in the development and adoption of a county-wide risk management policy for play services that promoted and provided a framework for making risk-benefit decisions aimed at enabling children to engage with a reasonable level of risk (Wrexham County Borough Council, 2013).

In Conwy, a much more specific issue arose with foster carers and Social Services. Foster carers reported being particularly fearful about perceived repercussions that may arise from their foster child/children sustaining minor injuries through play, saying that they were more relaxed about their own children taking risks than they were about the children they fostered. This was exacerbated by a reported lack of confidence amongst social workers in determining what a duty of care might look like in respect of foster children taking risks in their play. The county's play development team, supported by Play Wales, worked with professionals from the Social Services Looked After Children Team to develop a tailormade play policy implementation plan and guidance for risk management for the foster carers (Play Wales, nd). This has led to social workers and foster carers feeling more confident in enabling children in their care to engage in rough and tumble play, climb trees and generally play more freely than they had been previously (Russell *et al.*, 2020).

Supporting children's participation to improve their opportunities to play

In Monmouthshire, the play sufficiency lead officer worked in partnership with the Communities and Partnerships Development Team, an officer from the countryside section and a cluster of schools to bring children together in different neighbourhoods to design and carry out research and develop recommendations to present to the town council. As a consequence of the research, funding (Section 106)[192] was allocated to the community to help them act on the recommendations. From this initial piece of work a toolkit has been developed to support other school clusters to participate (Russell *et al.*, 2020).

Leasing of a woodland space

When a time limited staffed play project came to an end in a specific community in Wrexham, community development support led to the owner of the local industrial estate offering to lease a piece of woodland on a 'peppercorn' rent to the local community council so that they could open it up to children for playing. Wrexham County Borough Council's Play Development Team helped to develop a risk-benefit assessment for the site, which included gaining advice from representatives of the local authority's planning and health and safety departments who both visited the site. No major changes were made to the site except for building a fence between it and the adjacent industrial estate (which was partly paid for by Wrexham County Borough Council using the additional money for play sufficiency from the Welsh Government), cleaning out the stream that runs through it and having the condition of the trees inspected. The Community Council then agreed a lease with the landowner and arranged for their insurance to cover public use of the land. Some staffed play sessions were initially facilitated in the space to encourage people to use it but after that the space was left open for the children to use (Russell *et al.*, 2020).

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[192] Section 106 is part of the Town and Country Planning Act (1990) which allows a planning authority to place obligations on landowners seeking planning permission under a Section 106 agreement. Such agreements usually require the landowners to provide funding for resources that can be used by the local community, including play, sport or recreation facilities. Following the Levelling Up and Regeneration Act (2023), both Section 106 and the Community Infrastructure Levy (introduced in the Planning Act 2008) are likely to be gradually replaced over a ten year period by an Infrastructure Levy.

Since this time, a new landowner has fenced off the area (learned from a conversation in February 2024 with the play sufficiency lead as part of a current ongoing research study by the authors). This shows how fragile such arrangements can be and the complex interplay of policy, individuals, history, relationships and many other factors.

Professional development, support networks and partnerships

In north Wales the opportunity to collaborate on issues related to play sufficiency enabled the six local authority play sufficiency lead officers to work together on shared issues arising from Play Sufficiency Assessments in each of their areas. A key issue identified by all was the need for a range of professionals to have a better understanding of their role in supporting children's play. In response, a series of professional development conferences on children's play were designed and facilitated across the themes of 'school life', 'park life', 'home life' and 'street life'. Each conference was aimed at different groups of professionals associated with children's play and provided a forum both for training and networking, forging further partnerships and leading to changes in thinking and working practices (Russell *et al*., 2019, 2020).

5.8.3 Community play development

It should be noted that the influence of advocacy for children's play, by playworkers or others, spreads across policy, neighbourhoods and specific playwork services, and so the separation of sections 5.8 and 5.9 is purely for ease of organising the material. For example, influencing policy makers sometimes includes working directly with children (Russell *et al*., 2020); similarly, those running play provision, whether in public space or more bounded playgrounds or other sites, also work with adults to advocate for children's right to play (Bullough *et al*., 2018). The playworkers in Beunderman's (2010, p. 37) research 'did not see their workplace as disconnected from the locality, but rather as part of the fabric of the neighbourhood, either physically or organisationally, and conceived of themselves as part of the localised infrastructure for children and young people'.

Battram (2015) suggests that playwork thinking has often fallen into one of two dualistic modes: either 'intervention' playwork, which creates 'resource-intensive enclaves' (p. 287) such as adventure playgrounds or 'environmental playwork', which seeks to mitigate the barriers to children playing out, for example, play streets. He argues that neither on their own can address the complex adaptive systems that might support or constrain children's capability to play. Battram argues for what he calls 'systemic playwork', which would focus on experimentation and learning, working in interdisciplinary ways and with a critical pragmatism. Increasingly, such opportunities are emerging with the Play Sufficiency Duty[193] including, ironically, through a lack of secure funding for play services that necessitates invention (Russell *et al*., 2019, 2020).

With that caveat, this section reviews some of the literature on direct work within communities to improve children's opportunities for play.

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[193] See Barclay and Tawil (2020c) for a discussion on the ways that playworkers contribute both directly and indirectly to the play sufficiency process.

Find your village: growing play and community on a tower block estate

'Lots of people feel that they have no power to change things. Authority can be intimidating – council, police, housing management – and they are afraid to speak up. People can also feel there is no point as "nothing will ever change". The people who have been here the longest or who grew up in the UK have normalised this situation. The newest struggle much more.

But if you don't speak up, nothing will ever change. And things could be different! Like with the play street. It's like being back home. You come outside, talk to neighbours, there are people all around, children playing. It's like the village' (Musse, 2022).

This quotation comes from a parent and community activist living in a Somali community in Bristol. She talks about the difficulties of building social connections when living in high rise tower blocks and how different this is to the feel of the villages in Somalia.[194] Barriers to children playing out included fear of the drug users and experiences of racism in the local park. Isolation became an even bigger issue during the COVID-19 pandemic lockdowns. Musse, with some friends, started with an activity club in a local community space, and when the weather became warmer, they moved outside to parks and other community spaces, attracting about 40 mothers and children. This work led to her attending a meeting about improvements to the park, which in turn led to a collaboration with Bristol University to make a film entitled *Find Your Village* (Relevant Films, 2019). With support from the Community Interest Company Playing Out, she also started a regular play street on a small road next to the tower block. These forms of community activation have brought children and families together and helped to build a sense of community (Musse, 2020).

The Neighbourhood Play Project

An example of community play development by playwork practitioners can be seen in the Neighbourhood Play Project, an experimental research and activation project in south east Queensland, Australia (Moser *et al*., 2021). The project aimed to develop a network of friends for children to play with and of adults that are keen to support play and provide some informal oversight, community vigilance and tolerance. Responding to concerns about increasing sedentary screen time activity, reductions of outdoor play and physical activity, the playworkers planned to work over six months in two communities using a combination of community focus groups and experiences of outdoor play. The aim was to understand barriers and opportunities and generate ideas for further action through walking tours of the community and weekly play sessions on the street or in local spaces over a six month period. Through the events, children could play and get to know one another, as could the adults, whilst working with the playworkers to address barriers to play, overcome misconceptions, challenge preconceived ideas and increase neighbourhood connection and trust.

Through the early project introduction and orientation work it was found parents and other adult community members did not know one another, that there was no culture of neighbourliness, public socialisation or outdoor play, and that people generally kept themselves to themselves. Opportune moments to facilitate socialisation

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[194] A study of the constraints Somali refugee families feel on their children's capability to play out is reviewed in chapter 4, section 4.5.1.

were designed out as a result of remote control garage doors meaning people entered and exited their vehicles in the privacy of their home, and gardens or back yards were fenced. An overriding fear of stranger danger and child abduction, and to a lesser extent road traffic accidents, also meant all families limited their children's play to inside the house. Equally, parents were concerned about their children's isolation, their lack of confidence and capability for social negotiation, and their social and emotional competence. Children did not play out, did not expect that they should be able to play out, did not see the lack of this opportunity as negatively affecting their lived experience, did not know their neighbourhood or how to access friends in their neighbourhood, and as a consequence had no play networks. They also accepted their parents' fears about abduction, stranger danger and fear of traffic accidents as legitimate concerns for their safety and routinely had taken on board the sense that they should be fearful of people they did not know (Moser *et al*., 2021).

Although the project was not able to work with the planned numbers of families, what developed was a critical mass of children who were quick to recognise the value of playing out, developing a play network of friends to call on and developing a culture of playing out in their communities. Parents too recognised the value for their children and also for them as community residents, acknowledging that they were in the early days of developing community networks. Residents quickly learned to slow down in their cars whilst driving through the community and children too learned quickly to use the cue 'Car!' removing themselves from the street and calling 'Play on!' when safe to resume playing. Whilst participation in the project was sporadic, numbers increased through its duration as trust in the process and the playworkers increased. This culture of playing out continued to develop as did children's and adults' community networks. The project is now being piloted in five more communities in the region. The project coordinator notes that the length of time necessary to change existing play cultures may well require a more extended period of activation than was possible and that this type of project may be best suited to low traffic neighbourhoods, and less effective in communities based around high volume traffic road networks (Moser *et al*., 2021).

The Land/We Are Plas Madoc

In Plas Madoc, a housing estate in Wrexham, the playworkers approach their work from a rights-based perspective. Although there is now a dedicated adventure playground on the estate, the project began as a mobile project with two objectives. The first was to provide a play service for the children on the estate and the second was to make playing publicly acceptable (Bullough *et al*., 2018). In meeting the first objective, the playworkers worked for many years across the estate, facilitating play sessions on patches of waste ground, open green space and pavements directly outside children's homes. This work continually created opportunities to increase parental trust, both in the playworkers and in their own children to move around the estate to the various spaces where the play provision was being delivered. In terms of addressing the second objective, playworkers chatted with parents and other local residents about the need for children to be able to play and their right to do so (Bullough *et al*., 2018).

The adventure playground grew out of this community playwork, but it is a core belief of the playworkers that the playground is seen as part of the children's play ecosystem and not the only place where children could or should play. Given this, the playworkers have continued to work across the estate. A story related by the playworkers captures the strategy's intent and effect:

'When the playground closes in the evening, the play and playworkers sometimes spill out into the local community. The playworker tells the story of being with a group of children where one boy was decked out in leopard skin wellies and a top hat and was carrying an old vacuum cleaner hose, all items brought from the playground. This spill-over makes playworkers and children highly visible in playful ways and the playworker said that since they started working, first in the community prior to the opening of the playground and then on the playground with this spill-over, local adults have become aware of children's play, and attitudes towards it have changed. This example highlights the ways in which everyday actions and relationships, over a period of time, have a powerful influence in shaping community attitudes and engagement. Of course it will raise issues; not all adults 'get it' and certainly many of the things that happen on this particular estate "would be weird somewhere else"' (Lester and Russell, 2013a, p. 2).

The combination of increased tolerance and appreciation of children's right to play and the availability of resources that can be borrowed and repurposed from the adventure playground create the conditions where children can play (Lester and Russell, 2013a). Even after the opening of the adventure playground, the playworkers have continued this peripatetic work alongside advocating for children's play with the adults in the community. When the community received a large allocation of grant funding to distribute to local projects, residents chose to provide five years of continuity funding to the playwork team. This was in recognition of the direct benefits to the estates' children and the multiple wider community benefits that this community focused approach to playwork had brought about and was maintaining (Bullough *et al*., 2018).

5.9 Facilitating play in specific contexts

This section considers the spaces and contexts where adults directly facilitate children's play in some way. It begins with a review of playwork, understanding playwork as the only practitioner role that has as its primary purpose the creation of a space where children can play (PPSG, 2005; Tawil and Barclay, 2021b; Voce, 2021). Other practitioners may support and have an interest in play, but their primary concern is elsewhere, for example, education or health (Wragg, 2016). The rest of this section reviews efforts to facilitate children's play in situations of crisis, hospitals, prisons, schools, early years settings, out of school hours childcare and cultural venues.

5.9.1 Playwork provision

Playwork itself is an intervention in support of children's play. Over the last few decades there has been a growth in academic playwork research, much (but not all) of it qualitative and much of it theorising about playwork even if it includes empirical research (for example, Brown, 2014a; Brown and Hughes, 2018; Brown and Taylor, 2008; Cartmel and Worch, 2021; Hughes, 2012; King and Newstead, 2017, 2021a, 2021b; King and Sturrock, 2020; Russell *et al*., 2017, 2021, many of these being edited collections). McKendrick (2021) suggests that there is resistance to quantitative research in playwork for several reasons. These include the feeling that it might compromise playwork practice through a focus on issues not deemed to be directly pertinent; that it imposes quantification on play to meet an adult agenda; that it risks drawing playwork towards specific non-play outcomes; that results may be misinterpreted; that the skills for such research cannot be found within the sector and so it relies on those outside it; that the aggregate nature of quantification obscures the particular; that there is more to playwork than that which can be counted; and that even if the benefits of playwork could be counted, it may not be desirable to do so. Despite these arguments, McKendrick makes the case for embracing multiple ways of evidencing the value of playwork, including through quantitative methods, which can yield insights beyond those

from qualitative research and need not be constrained by the objections listed. The sector itself should gain the skills in such research approaches, he argues, thereby allowing research to speak to playwork agendas, to embrace complexity in relevant and ethical ways and to promote playworkers' expertise on children's play.

Section 5.1.2 reviews the limited academic research on the impact of staffed play provision. What follows here is a review of contemporary research and writing on playwork that highlights both conceptual and practice-based aspects of the work including the contemporary issues faced by the sector.

Contemporary perspectives on playwork

Contemporary playwork, as an approach to working with children in support of their play, grew out of the post-war adventure playground movement in the UK (Almon and Keeler, 2018; Chilton, 2018; Leichter-Saxby and Law, 2015; Newstead and King, 2021a, 2021b; Russell *et al.*, 2021; Wilson, 2010). Today, playworkers work in a range of settings including adventure playgrounds, public parks and open spaces, community centres, schools, hospitals, prisons, and more (Almon, 2017; Goldsmith, 2021; Leichter-Saxby, 2021). Given this, and the ways that playwork has evolved, both in the UK and beyond, there is not one standard model of playwork, despite its broad convergence on the Playwork Principles (Goldsmith, 2021; Guilbaud, 2015; Newstead and King, 2021a).

Throughout playwork's history, some have argued that the field of playwork has suffered because it has been unable to articulate clearly to those outside what its purpose is and has therefore found itself shifting in response to policy and adult agendas over time, rendering it a 'conceptual chameleon' (Newstead and King, 2021a, p. 2). Others, whilst acknowledging the need to find a language to articulate the work, see a strength in its indefinability, drawing parallels with play itself, arguing in favour of playwork's focus on process and experimentation that can be constrained by overly prescriptive definitions (Davy, 2007), embracing the unknowable and the uncertain and resisting capture and reification (Guilbaud, 2015; Russell, 2018a), and pointing out that playwork is 'deliberately oxymoronic' (Wilson, 2010, p. 8). Playwork has been described as 'multivoiced, although some voices are louder than others' (Russell, 2018a, p. 41).

Nevertheless, changes in the socio-political landscape have raised challenges for operating with such fluidity, including the introduction of health and safety legislation, inspection and registration regimes, a growing focus on measuring performance and outcomes, and the introduction of technical qualifications that defined the functions of playwork in atomised and fixed ways, together with an accompanying sociocultural shift from co-operation, sharing and mutual support towards competition, individualism, insularity and independence (Battram, 2015; Chilton, 2018; Cullen and Johnston, 2018; Roraburgh, 2019; Russell, 2015, 2018a; Wragg, 2018). Against these powerful forces, playwork's countercultural origins and ethos are still evident (Chilton, 2018; Russell, 2015; Wragg, 2018). Russell (2015) argues that these changes position dissent and recalcitrance as important components of playwork ethics, more evident in the small moments of everyday work than in grand political gestures. Wragg (2018, p. 29) suggests that playwork 'represents a shrinking bastion of resistance to the principles of neoliberalism that have come to govern contemporary childhoods'.

At a more pragmatic level, Cullen and Johnston (2018) argue that the austerity agenda positions playwork, a non-statutory public service with limited recognition and power, as precarious and vulnerable to cuts[195] and has led to playworkers diversifying what they can offer to raise funds, something which also has the potential to position playwork as 'a sort of cuckoo field of practice, laying its values, principles, and enactments in foreign nests where it might be nurtured and grow' (Shaw, 2023, p. 63). Playworkers have also been responsive in diverse ways to the impact of austerity on the children and families with whom they work, and particularly so through the

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[195] See the discussion on this in section 5.8.2.

COVID-19 pandemic (King, 2021). Many playworkers are now regularly feeding children, often funded in school holidays through government programmes. In Wales, government funding to address holiday hunger was made available to the playwork sector, recognising that 'the playwork sector has good access to children in deprived areas and good local knowledge of families and their situations. Playwork settings are already well established and well placed to distribute healthy meals to children at risk of holiday hunger' (Geary *et al.*, 2019, p. 1).

Since the early 1980s, the playwork sector has been focusing on the facilitation of play as its rationale (Newstead and King, 2021a), often describing it as an intervention aimed at compensating for the lack of opportunities to play out in the public realm (Hughes, 2012; Wilson, 2010). The paradoxes of this stance have been pointed out by several contemporary writers. One paradox is that 'the very ambiguity of play itself produces key challenges for its [playwork's] recognition and status' (Cullen and Johnston, 2018, p. 470). A second paradox is that between promoting the intrinsic value of play and seeking to meet funders' agendas for more instrumental outcomes (Russell, 2012, 2018a; Wragg, 2018). A third is the espousal of play as child-led and child-directed and the authority of playworkers in how they provide for children's play and manage such spaces (Newstead and King, 2021b; Russell, 2018a), since 'practitioners continually determine whether, when, and how to involve themselves in children's play' (Leichter-Saxby, 2021, p. 137). However, this tension can also be what keeps playworkers aware of their potential to 'adulterate' children's play (King and Sturrock, 2020; Wilson, 2010; Sturrock and Else, 1998) and of the idea that playwork should be working towards its own obsolescence (Martin, 2021).

Some speak of playwork's 'cloak of invisibility', of being 'present and not present at the same time' (Wilson, 2010, p. 10), or the idea that playwork is about the 'not': '*not* intervening unless requested by the child or for safety reasons; *not* having specific outcomes; *not* planning daily, weekly or termly tasks for children to complete; and *not* implementing adult-centred notions about how to occupy children's time' (Willans, 2021, p. 26; see also Russell, 2015). In a similar vein, Fisher (2008, p. 178) argues for adopting the poet Keats' concept of negative capability:

'Negative capability … describes the paradox, that by sometimes appearing to do nothing, we enable ourselves to do the most … negative capability is not passivity; it is not sitting back, spacing out and doing nothing. It is really being aware of the situation without jumping to conclusions and leaping to intervene.'

At the same time, much of the literature on playwork focuses on relationships. Children's relationships with playworkers are important to them and are unlike other relationships with adults. Beunderman (2010) named his report into the value of staffed play provision *People Make Play*, saying that the stories from the children in the research showed clearly that for them 'it was the staff that made the difference' (p. xiv). Few adults are in a position to have such a personal and trusted relationship with children (Beunderman, 2010). Playworkers are often seen by children as someone they can trust and confide in (Chilton, 2018). This has sometimes been called a 'horizontal relationship' grounded in children's rights and respect for children (Hart, 2008), and Leichter-Saxby (2021, p. 30) suggests that 'playworkers seek to embody particular affordances' in their relationships with children. Russell (2013, 2018a) suggests that playwork's narrow focus on non-intervention fails to take account of the broader atmospheres and relationships in playwork settings that are built up over time. The playworker's presence is a significant and continual part of the production of the space, however invisible they try to be. Shared moments of playfulness and nonsense, together with genuinely caring about 'what some might see as "petty" details of the children's relationships, power struggles and fallings out' (Russell, 2018a, p. 23) give children the sense that playworkers are 'on their side' (Leichter-Saxby, 2021, p. 213). This brings a different timbre to the moments when things 'kick off' and the atmosphere tips from the 'edge of chaos' into violence and playworkers have to intervene directly (Russell, 2013, 2018a).

The permissiveness of the playworker-child relationship can mean there is an intimacy of some relationships between children and playworkers, for example, through children asking personal questions of playworkers, or the thorny issues of touch – two issues rarely discussed in the literature. Children often use playworkers as a resource, engaging them in rough and tumble play or having piggy-backs, and it is not unusual for children to initiate cuddles if they are upset (Leichter-Saxby, 2021; Russell, 2013). Touch is also a key aspect of playwork with some disabled children. Smith (2017) questions how the principle of low intervention can apply in settings where playworkers work with children with profound and multiple learning disabilities. The modes of communication and high levels of support needed with the children in his study meant that the playworkers felt the playwork definition of play as freely chosen and personally directed was not applicable to, and potentially excluded, their work. Despite this, observations of the playworkers in action showed that a sensitivity to metacommunication coupled with playfulness both during care routines and more designated play activities meant that the playworkers were creating a space where the children could play.

An openness to difference on the part of playworkers can also help with different appreciations of how children play. Willans' (2021) experience of working on an adventure playground for disabled children and her observations of autistic children at play ran counter to the dominant narrative of deficit and therapeutic interventions.[196] She saw autistic children engaging enthusiastically in play, but in different ways from their neurotypical peers. Willans (2021) argues that judging children's play skills from the perspective of different types of play (for example, imaginative or social play), or from an age-and-stage developmentalist perspective will inevitably conclude that autistic children lack the skills required to engage in such play forms. However, observing play through the lens of playfulness allows for a more open perception of play that is embedded in autistic culture. For example, the delight of throwing sand up into the air to watch the grains 'float on the breeze' (Willans, 2021, p. 23) can be understood as playing rather than challenging behaviour.

Playwork practice is inevitably influenced by how playworkers locate themselves politically and socially, including their own identities at the intersections of gender, class, race, age, queerness and more (Leichter-Saxby, 2021). However, this is a subject rarely broached in the playwork literature. Willans (2021) notes that the playwork literature on disability is sparse (Smith, 2017; Smith and Willans, 2007). This holds similarly for gender (Cowman, 2019; Goldsmith, 2021; Kilvington and Wood, 2016; Shaw, 2023), race (Shaw, 2023) and class (Russell, 2013; Shaw, 2023). Although playwork itself is under-researched, Shaw (2023, p. 71) suggests that playwork spaces 'provide an opportunity to trouble notions of adulthood and childhood as contested sites of inequality, and unequal rights'. However, in the absence of existing research, the 'children' spoken of in playwork literature inevitably fall into the void of the universal child, apart from stories and research of particular moments where children's intersecting identities may or may not be revealed.

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[196] See chapter 3, section 3.3.3.

Adventure playgrounds

'An adventure playground can be described as a space dedicated solely to children's play, where skilled playworkers enable and facilitate the ownership, development and design — physically, socially and culturally — by the children playing there. It is enclosed by a boundary to signal that the space within is dedicated to children's play and to enable and encourage activities not usually condoned in other spaces where children play, such as digging, making fires or building and demolishing dens and other constructions. It is a place where children can engage in a full range of play behaviours. The children and playworkers continually create and adapt challenging and exciting play structures and features to make a place that children feel belongs to them and where anything is possible' (Play England, 2017, p. 2).

From over 500 adventure playgrounds in the UK in the 1970s (Chilton, 2018), England now has an estimated 126, 68 of which are in London (Play England, 2021) and many of which are under threat (Roraburgh, 2019). Given that there are an estimated 12.7m children under 16 (Office for National Statistics, 2020b), the percentage of children who have access to an adventure playground is very small and has been historically even in the heyday of adventure playgrounds. In its report on play, the All Party Parliamentary Group on a Fit and Healthy Childhood (2015), whilst acknowledging the value of adventure playgrounds, stated that if the government response to providing for children's play was to be through universal provision of adventure playgrounds, there would need to be more of them than primary schools. Nevertheless, adventure playgrounds are included in the Greater London Authority's (GLA, 2012) Supplementary Planning Guidance on play and informal recreation as a form of provision to address deficits in local authorities' play strategies.

The adventure playgrounds that remain adhere to varying extents to the original ethos of the junk playground imported from Denmark and subsequent developments of the concept in the UK (Chilton, 2018; Roraburgh, 2019). By necessity, they have become more formalised (Roraburgh, 2019), whilst still making efforts to stay true to this ethos (Play England, 2017). Although most in the UK were established in working class areas of high deprivation, some of these neighbourhoods have been regenerated which has to some extent changed the demographic (Roraburgh, 2019). Some commentators (for example, Chilton, 2018) mourn the loss of the 1970s ethos of self-build, fires, risk and constant change. Others (for example, Delorme, 2018; Roraburgh, 2019) question whether there has been too much focus on returning to origins and not enough flexibility to adapt to changes in children's play cultures and practices. Nevertheless, the model of adventure playgrounds has significant support within the broader children's advocacy movement (for example, All Party Parliamentary Group on a Fit and Healthy Childhood, 2015; Hart, 2014; Henricks, 2015a; Moore, 2014; Poulsen, 2022), and is arguably enjoying a renaissance in the United States (Almon and Keller, 2018; Leichter-Saxby and Law, 2015; Patte *et al.*, 2018).

In parallel with the rationales for playwork more generally, adventure playgrounds have been promoted in terms of their instrumental value and their contribution to children's physical and mental health and wellbeing (Gill, 2014a; Matrix Evidence, 2010; The Means, 2016), to crime prevention (Cowman, 2019; Russell, 2018a), to citizenship development (Kozlovsky, 2008), to building social and community networks (Beunderman, 2010) and children's social capital (Jester and Leichter-Saxby, 2014).

Williams (2017, p. 53) selects a few historical and contemporary quotations to highlight the uniqueness of adventure playgrounds as expressed by advocates:

- 'as old as history, as fundamental as childhood' (Mays, 1957, p. 6)

- a 'revolutionary experiment' (Allen, 1972, p. 8)

- adventure playgrounds 'exist on the lunatic fringe of orthodox recreation' and are 'a hybrid of the strip cartoon and the junk yard' (Mays, 1957, p. 5)

- 'models for a totally radical and extremely valuable form of public space' (Norman, 2003, p. 8)

- 'a free society in miniature' (Ward, 1961, p. 194)

- 'a new form of radical social work' (Cranwell, 2007, p. 70)

- 'one of the most libertarian models for public space the world has seen' (Nuttall, 2010, p. 78).

Research with adults sharing memories of adventure playgrounds shows just how much the adventure playgrounds had meant to them as children. As one participant said, looking through old photos,

'"God, look at that, Jeez man, it makes me have a lump in my throat, it really does!"

"Everyone's all smiling in the photos."

"Cos it was an amazing time, like everyone had a crap life in the house but as soon as you got to the adventure it was like, it was a really good time"' (Williams *et al.*, 2016, p. 10).

The stories showed how adventure playgrounds were places of safety, excitement, belonging, places that were a bit on the edge, but places that were important to the participants as children and still, for many of them, now as parents and grandparents (Williams *et al.*, 2016). Nonetheless, it should also be noted that adventure playgrounds are spaces where the structural and symbolic violence of poverty together with the exuberances and tragedies of children's play can tip into violence and aggression, and family or community conflicts can spill into the space despite efforts to protect it (Bullough *et al.*, 2018; Leichter-Saxby, 2021; Russell, 2018a).

Much of the available contemporary literature on specific adventure playgrounds has been on ones that have been established more recently (Bullough *et al.*, 2018; Dall, 2014; Russell *et al.*, 2021; Wragg, 2018).[197] These offer a unique perspective on contemporary understandings of playwork precisely because of the greater opportunity for proactively and deliberately considering their development from the start with the benefit of contemporary theorising.

[197] Exceptions include the study of The Venture in Wrexham by Brown (2007), or the research into memories of adventure playgrounds by Williams *et al.* (2016).

For example, Dall (2014) describes the deliberate collaborative process at Baltic Street Adventure Playground in Glasgow of working with the 'groan-ups' (p. 193) to produce a mission statement. Recognising that mission statements do not guarantee that an organisation will uphold the vision, the process was part of a strategy to foster relationships that could support and enable the nascent organisation and its playworkers. The statement had two parts. The first was a straight description of the ethos, vision and objectives for the adventure playground. The second was intended as a live document outlining in detail how each objective might be met on a day-to-day basis, covering working democratically with the children, the community and wider networks.

Another example was the deliberate decision at The Land, in Wrexham, not to build what have come to be seen as defining large and semi-permanent play structures (Chilton, 2018; Leichter-Saxby, 2021; Wilson and MacIntyre, 2008). Apart from the fence, the only constant is the land itself and two shipping containers used as an office and for storage. The Land has been described as consisting of grass, mud, trees, a mound of earth with holes and tunnels, slopes, child-made paths, a watercourse and a load of junk that included 'tyres, wooden pallets, exercise bikes, a piano, a "dead" boat and the charred remains of fires' (Bullough *et al.*, 2018, p. 129). Dens appear and disappear, bridges are built and destroyed, zip lines made and removed, wild garlic planted, bonfires built. A similar approach was taken at Lester's Yard on the Isle of Man (Isle of Play, nd), which opened in 2020. The website playfully reports the following statistics:

- 783: number of children every month

- 783: number of smiles made

- 78,345: number of nails used (Isle of Play, nd).

Other newer adventure playgrounds have made the seemingly opposite decision to build high and semi-permanent structures. One particularly iconic structure is the tango swing. Sometimes called an American swing or a cat and mouse swing, the structure has a ring-shaped platform with two rope swings suspended from a high cross bar, enabling multiple versions of chase-and-swing games. The story goes that the tango swing name came from one London adventure playground over 25 years ago where the 'cat' counted to ten before chasing the two 'mice' on the ropes, shouting 'Ten, go!' at the end (Conway, 2014). Gwealan Tops adventure playground in Cornwall took the deliberate decision to position a seven-metre high tango swing clearly visible from the street, thereby making a statement that the space had been reclaimed as an adventure playground. As the playground was the first of its kind in Cornwall, the children had no prior experience of the swing and so its use needed to be watched in the early days to prevent collisions. Rather than an act of 'management', standing on the platform was a chance to get to know the children and 'an opportunity for banter, for having a laugh and working towards an atmosphere and culture for the playground of a prevailing playful feel' (Russell, 2018b, p. 13; see also Russell *et al.*, 2021). A similar swing at Eccleshill adventure playground in Bradford equally defined the playground such that it has become known locally as the Big Swing (Wragg, 2015).

An argument has been made that such large-scale and high structures offer excitement and adventure (Wilson and MacIntyre, 2008), and that in urban spaces they can offer what trees might in less built-up spaces (Wilson, 2010). Nonetheless, there is also the suggestion that a focus on such 'thrusting structures' downplays the importance of smaller more containing and private spaces and other ways of playing (Wilson and MacIntyre, 2008). It is, however, possible for both to co-exist to some extent (Russell *et al.*, 2021).

A major concern of those taking on the responsibility of new adventure playgrounds has been that of risk-taking and the threat of litigation. Wragg (2015, p. 325) explains that, to face up to such a concern, the early developers of the Big Swing adventure playground needed 'a strong degree of commitment and integrity, … a sound understanding of the legislative requirements governing such provision… [and] a preparedness and determination to advocate for the child's right and need to play'. This was evident in their *Risk and Play Policy Statement*, which promotes children's right to engage in the full range of play types and states:

'The playground responds to the child's instinct to experience risk in their play, and whilst facilitating opportunities to do so in compliance with relevant health & safety and risk-benefit management policy and procedure, acknowledges that an element of real danger must be present for such opportunities to be truly beneficial to the child. Therefore it is inevitable that children attending the playground will incur injury' (Wragg, 2015, p. 328).

The final deliberately provocative sentence opened the floor for a way of thinking about children's capabilities that resisted the increasing protectionist views of the time and was also intended to forestall legal action from caregivers. During discussions about the playground's approach to health and safety, senior officials from the local authority reminisced about their own childhood play and compared scars. The timing of the development of the Big Swing adventure playground coincided with the beginnings of a movement that sought to challenge the over-protection of children, including the statement from the UK Play Safety Forum on *Managing Risk in Play Provision*, published in 2002 and subsequent implementation guide (Ball *et al*., 2008, 2012) and further research and publications promoting the benefits of risk-taking in play (Ball and Ball-King, 2013, 2014; Ball *et al*., 2019; Gill, 2007).[198] More recently, Leichter-Saxby and Wood's (2018) statistical analysis comparing injury rates on adventure playgrounds and in a traditional primary school recess provision found that the adventure playground was statistically safer, with injury rates just above four times less prevalent on the adventure playground than the traditional school recess period when considered over equal exposure time.

Nevertheless, the Big Swing faced its first litigation from the family of a child who had been regularly attending for the past seven years. Wragg (2015) suggests that the litigation could have been a consequence of austerity through the attraction of a pay-out. However, despite the professionalism, diligence and legality of the playground's approach to risk, the power lies with the insurance company, who demanded that '"dangerous" play structures upon which thousands of children have played for over a decade without issue, are modified or demolished' (Wragg, 2015, p. 331). More generally, adventure playgrounds have been finding it more difficult to find insurers willing to provide cover at a reasonable rate, with key historical insurers refusing cover entirely, partly due to questions over maintenance of structures due to funding cuts and partly because one company's 'appetite [had] changed towards adventure playgrounds' (Savage, 2019).

Playwork in public spaces

As has been noted,[199] interventions that are limited to changes to the physical landscape, either through the provision of public playgrounds or other infrastructure changes, often fail to improve children's capability to play if other prevailing conditions are not supportive (Krysiak, 2018; Lee, 2015; Pérez del Pulgar *et al*., 2020). In these situations, activation can significantly improve the likelihood of children and other people making better use of available space, as it can in situations where no physical changes have been made, highlighting the relational nature of both space and children's capability to play. Such activation is often by playworkers and allied professionals, who aim to 'hold' the space, often temporarily, as a place for playing. These activators provide permission for play, facilitating connections both between children and between adults, thereby breaking down barriers, improving people's sense of safety and modelling a way of working and being with playing children (Juster and Leichter-Saxby, 2014; King and Sills-Jones, 2018; Krysiak, 2019; Leichter-Saxby and Law, 2015; Wilson, 2019; Wilson and Nuttall, 2020).

[198] See chapter 3, section 3.7.6.
[199] See section 5.8.2.

One example is of Play KX, where it was argued that such animation of public space can bring wider benefits than installing a public playground. This example also illustrates the influence of an award-winning architecture studio with a track record of working to support play. Assemble, the same collective involved in the Baltic Street adventure playground,[200] were invited by the managers of the newly regenerated 67-acre King's Cross development in London (costing around £4 billion), to design a playground for one of the largest open spaces on the site. Wilson (2019, p. 11) describes their response:

'Assemble … looked at the space and said no. They pointed out that a playground is actually a very poor play offer. That it is used by a small demographic for a small amount of time and that it fills up empty space which otherwise could be used for a huge variety of purposes by a huge number of people. By way of an alternative they suggested employing a team of Playworkers and loose parts with a Playwork presence on site for the majority of each week. The developer agreed. This was a bold decision that would never have happened in this place with a voluntary sector play organisation. But being under the aegis of Assemble lent the right credentials and kudos enough to be acceptable.'

From 2018 to 2020 the team activated sites across the development with a collection of loose parts and with playworkers. As well as practising playwork with the children, the playworkers engaged with parents and adults, and used social media as a key promotional and advocacy tool (Wilson and Nuttall, 2020). Their aim was to activate the space, to imbue the space with examples of playing through modelling a playwork approach, to develop a culture of play, to help people to feel safe and confident to continue playing once the project was over, and to challenge existing notions about how play is provided and how spatial practices are organised.

Such modelling has also been at the heart of the Pop-up Adventure Playground model, which aims to blend the ethos of adventure playgrounds with what is reasonably practicable for communities, using readily available resources (for example, cardboard boxes, string, tape, fabric) in public open spaces (Leichter-Saxby and Law, 2015). The model 'allows adults the exceedingly rare opportunity to not only witness children as experts in their own play, but to celebrate children at play publicly' (Juster and Leichter-Saxby, 2014, p. 83). Working with local agencies allows the organisation to introduce parents, teachers, camp counsellors and other adults to the idea of children's self-organised play and the principle of playwork as supporting play rather than directing it. Asking local businesses to donate materials also offers the opportunity to advocate for play and children as participating community members. Inviting families to attend the pop-up events demonstrates ways of being with children that can support their play. The aim is that 'by creating multiple methods for community involvement and investment, we are able to support sustainable change at a broader local level' (Juster and Leichter-Saxby, 2014, p. 84).

Another model of playworkers animating public space is that of play rangers. The concept grew from concerns that public parks and playgrounds were often not used by children unless with their caregivers (King and Sills-Jones, 2018; Krysiak, 2019). As well as offering facilitated play sessions, broader aims are for children to visibly occupy and build relationships with parks, meet other children in their local neighbourhood (Krysiak, 2019) and to advocate for children's right to play in public space (Play Gloucestershire, 2020). Whilst the Play Rangers in the Park project in Tokyo did lead to more children playing out when the rangers were not there (Krysiak, 2019), the same cannot be said of similar projects in the UK (King and Sills-Jones, 2018). In one research project that sought

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[200] See previous section on adventure playgrounds.

to explore the relationship between a play ranger project (Play Gloucestershire) and children's wellbeing, the children consistently spoke about the importance of the play rangers, confirming the value of trusted relationships with adults that are different from relationships with parents and other professionals. In addition, a sense of agency was important for the children, together with a sense of being appreciated and valued (Matthews *et al*., 2017). Play Gloucestershire also run a young volunteer scheme, now linked to an apprenticeship scheme, meaning that several of the staff are 'home grown' (Play Gloucestershire, 2020).

Some play ranger projects work with specific groups of children, for example North Ayrshire Council, which appointed play rangers to work with families and children from the Gypsy and Traveller community, with the aim of building trust and relationships. One outcome was the installation of a playground on the designated Traveller site. As a result of the project, relationships between the Gypsy and Traveller community and the council have improved, and there is a better understanding of the value of play and better engagement with other services from the community (Scottish Housing Regulator, 2015).

Another example is the PlayCan project, a partnership between an organisation with longstanding experience of play ranger services, advocacy and training (East Lothian Play Association – ELPA) and one with longstanding experience in offering playschemes, youth clubs and activities for children with additional support needs (Can Do). It aims to support children with additional support needs to attend outdoor play ranger sessions in local parks alongside their friends and siblings, particularly those with complex needs who have not been accessing the play ranger sessions organised by ELPA. Collaborative planning with families is a core principle of the project, as is capacity development for ELPA in including children with more complex support needs in their practice (East Lothian Play Association and Can Do, 2022).

5.9.2 Play in situations of crisis

Both during and after crisis situations, opportunities for playing can serve both to generate a sense of normality and strengthen resilience (Chatterjee, 2017; Cohen *et al*., 2014). Equally, and perhaps as a result of the spontaneous and context-adaptive nature of play, children often play through experiences over which they have little control and which trouble or traumatise them (Casey and McKendrick, 2022), helping them understand and come to terms with their experience (Cohen *et al*., 2014). Recently, studies of children's play during the COVID-19 pandemic showed how the pandemic featured in children's play, particularly in the early days (Cowan *et al*., 2022; McKinty and Hazleton, 2022). Tonkin and Whitaker (2021) found that the ability to play during the pandemic helped to mitigate its potentially deleterious impact. Casey and McKendrick (2022, pp. 6-7) argue that to enable play to flourish in situations of crisis the same 13 factors for an optimum play environment as recommended in General Comment no. 17 should be considered, summarised as:

'A necessity for space (where they feel relaxed and safe enough to play), time (which is free of other demands), some resources (materials, things to play with) and permission (an atmosphere of at least tolerance for play or absence of severe restrictions). Rather than requiring a specific designated location, a play space is created through children's shifting and dynamic interactions with each other and the materials and symbols present in any space; children's performance of play both takes and makes place.'

The International Play Association (IPA) has produced a guidance toolkit for those living and/or working in situations of crisis to aid the development of spaces that are suitable for children's play (King-Sheard and Mannello, 2017). However, examples of play-friendly responses to situations of crisis are not well documented (Chatterjee, 2017). Guidance on the development of child friendly spaces in situations of crisis has been produced both by UNICEF (2009) and Save the Children (2008) and these include acknowledgement of the right to play and of play's recovery and normalising potential. Three international examples are offered here of specific interventions to support play in situations of crisis.

Land of the Child

One high profile example of a play-centred response was the underground playground near Damascus in Syria, named Land of the Child by its creators, who were predominantly university student volunteers, some with a design/engineering background. In 2015, during the Syrian conflict, volunteers transformed dark basements into a huge children's playground with a self-built Ferris wheel, ball pool, play equipment, materials and props for play and a multitude of other playful affordances (UNICEF, 2016). Similar projects have been developed in other places devastated by the conflict (Feldman, 2019). Whilst such a response is laudable, it also 'reflects a cruel and devastating truth engendered by the brutal civil war: after years of escalating conflict, children's play in Syria has been driven underground' (Feldman, 2019, p. 294).

Adventure play responses to disasters in Japan

Another example of a play-centred response to crisis comes from Japan. Japan has a strong history of adventure playground and adventure play provision with some 400 known projects in 2014 (Kinoshita and Woolley, 2015). These spaces operate according to a similar framework of principles as in the UK.[201] Perhaps because of its embedded nature, adventure play projects have been used as interventions in circumstances of crisis, initially in response to the Kobe earthquake in 1995. Playwork volunteers set up an adventure playground in a city park where hundreds of families were taking temporary shelter in the days after the earthquake, and they continued working there for the following five months. Initially, the project had to manage challenges from adults who perceived the frivolity of playing to be misplaced during such a time of grief and trauma. In addition, children took time to engage, being withdrawn, uncooperative, becoming easily irritated and at some points aggressive – all symptoms of Post-Traumatic Stress Disorder (PTSD). Over time, however, the children worked through these issues and began to re-enact the disaster in their play, changing the narrative into a more fun or successful one and finding less confrontational ways of expressing their feelings of anger and frustration (Kinoshita and Woolley, 2015). As one playworker commented, 'a child has power to heal themself. Therefore there should be enough places for play' (Hideaki Amano, 2011, cited in Kinoshita and Woolley, 2015, p. 45).

In 2011, a second triple disaster hit Tohuku. It began with Japan's biggest ever earthquake, which triggered a tsunami and in turn led to one of the world's biggest nuclear disasters as three of the six nuclear reactors at Fukushima nuclear power station went into meltdown (Kinoshita and Woolley, 2015). Chatterjee (2017) notes that after the disaster, there was no formal state response to either use play interventions, or in recognition of the play spaces and opportunities lost to children because of it. However, not for profit organisations and playworkers from across the country operating as volunteers did take action. During the aftermath, the Japan Adventure Playground Association responded by working with children and the wider community in the Ohya district to build an adventure playground. One playworker recounted stories of tsunami play where children incorporated a slide and barrels of water into their play narrative, creating scenarios in which players would announce the coming tsunami and one child would slide down the slide as other children threw on water, with those under the slide

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variously rescued or lost to the waves in different play episodes. The success of the response as perceived by the community and visitors gave rise to approximately 25 similar projects across the disaster affected area (Kinoshita and Woolley, 2015).

Play in a Romanian hospital orphanage

In this example, a playworker-led, play based project was initiated as a response to supporting the recovery and development of children who had experienced abuse and neglect and who had spent years of their lives (sometimes up to ten years) in the same ward, tied into their cots in a Romanian paediatric hospital (Brown, 2014b). After regime change following the overthrowing of the Ceaușescu Government and raised awareness of the plight of the appalling conditions these children were experiencing in the country's care system, the Director of Hospitals contacted the UK charity, White Rose Initiative to implement a play project in one of the hospitals (Brown, 2014b). Working with 16 children aged from one to ten years, the project, together with a parallel research project, was carried out over 18 months. At the start of the project, most children had little or no communication, were emotionally withdrawn, expressed few if any social skills, were experiencing significant delay in their physical growth and showed poor cognitive development in comparison with traditional expectations for age (Brown, 2014b; Webb, 2014). The playworkers created a rich play environment fostering child-initiated play, taking a broadly non-interventionist approach, observing play cues, joining in when invited and withdrawing when appropriate. Working to each individual child's agenda through careful observations of expressed capabilities and play preferences, playworkers were able to introduce props and materials to enable children to continue their exploration and engagement, discovery, and creativity, using play as the means to interact and relate with the children, whilst avoiding wherever possible any temptation to impose adults' agendas of behavioural regulation (Brown, 2014b, 2018; Webb, 2014). All of this was underpinned with good quality care as part of the playwork project, releasing children from being tethered to their cots on arrival, changing nappies after bathing children and ensuring the children were well fed. When the playworkers were not there, and despite the wishes and pleas from the playworkers, the children were tied to their cots with no interaction with staff or other children, were poorly fed and bathed, as before the start of the playwork project (Brown, 2014b).

Whilst changes varied significantly for each of the children due to their different ages and developmental complexities, all children showed significant changes as a result of the project (Brown, 2014a, 2014b; Webb, 2014). Changes in the children's socio-emotional behaviour became apparent within weeks as did evidence of developments in cognitive and communication capabilities. Children explored the materials and resources available and began communicating through play with one another and the playworkers. Children who had never walked or talked began to, and some gained significant height over the period of the project (Brown, 2014b; Webb, 2014). In a follow-up study six years later, Brown (2014b) found that three children were still institutionalised and on visiting appeared under some sedation, as such any evidence of the project's efficacy was difficult to establish. However, 13 of the children had been fostered into Romanian families, something unlikely to have happened had the children remained as they were prior to the project. Brown managed to locate seven of these children. One child reportedly had initially built strong relations with a foster grandparent, but this person had died when the child had been temporarily hospitalised and on returning to the foster home the child had never spoken again. The other six children appeared to be enjoying life, had friends, were engaging in education and their physical growth and development was comparable with their peers. Despite such significant changes becoming apparent throughout the course of the project and seemingly continuing for many of the children since, Brown (2014b) suggests that it was the playworkers' creation of a rich play environment that enabled children to self-direct their play and to play with one another that was the major catalyst for change.

5.9.3 Play in healthcare settings

Children who use acute or specialist healthcare, particularly those with long term conditions and repeated or lengthy hospital stays, often have limited opportunities for play, social interaction and physical activity. This means not only do they miss out on the benefits gained from playing, but this happens alongside experiencing the possible trauma and challenges to their mental and physical health that has either caused their hospitalisation or can come as a result of it (Starlight, 2021).

Internationally, many hospitals, hospices, trusts and charities provide play specialists in their paediatric care settings (Perasso *et al.*, 2021). Despite variations of title there is broad consensus about the role and two broad functions of the play specialist. The first is the use of play as a normalising tool, helping children feel more comfortable and relaxed in the hospital situations (Care Quality Commission, 2015; Gulyurtlu *et al.*, 2020; Perasso *et al.*, 2021; Roberts, 2015). The second has a more medical function, using play in a range of ways that helps distract children from, or enables them to cope with or come to terms with, a medical procedure, thereby aiding the process of recovery from illness or such a procedure (Burns-Nader and Hernandez-Reif, 2016; Perasso *et al.*, 2021; Roberts, 2015; Walsh, 2021). Health play specialists and health playworkers approach their work with similar foundations to those of playwork but with additional knowledge and experience of helping children cope with illness, medical treatments and procedures (Roberts, 2015; Walsh, 2021). Despite significant support for play specialists and recommendations from national and international governmental and non-governmental bodies, not all acute or specialist healthcare settings have managed to integrate the role and many more are not able to provide adequate resourcing from within their own budgets. Starlight, a UK non-governmental organisation supporting health play specialists, found that half of the providers using its services had no allocated budget for play, fundraising money throughout the year through various events and funding applications. Over a third of the almost 500 hospices and hospitals that apply for Starlight services have no play specialist as a part of their team (Starlight, 2020).

When play specialists are incorporated into paediatric care, evidence suggests a range of positive outcomes. Play specialists support children to develop coping strategies, which reduces levels of anxiety and stress brought about through the process of hospitalisation, thereby improving children's sense of wellbeing (Gulyurtlu *et al.*, 2020; Perasso *et al.*, 2021). In addition, children's pain management is improved during procedures when distracted by engagement in play with a play specialist (Gulyurtlu *et al.*, 2020). Where play specialists have been able to support children in the development of pain management strategies, reduced pharmacological pain relief and or sedation has been possible (Perasso *et al.*, 2021). Play specialists also help children come to terms with their illness or with medical procedures, with sociodramatic or role play being effective in increasing children's compliance with medical procedures, which can also have a significant cost saving influence. For example, children who understand the need to stay very still whilst undergoing an MRI scan are likely to both have a successful scan at the first attempt and are able to do so without a general anaesthetic. Play specialists can also be key to palliative care, facilitating play that compensates for the often extreme loss of opportunity and being a consistent presence for parents, easing the family's experience in ways that other hospital staff may not be able to do (Gulyurtlu *et al.*, 2020; Perasso *et al.*, 2021).

Great Ormond Street Hospital

In the UK, Great Ormond Street Hospital for Children (GOSH) in London has one of the largest play teams in any hospital in Europe (GOSH, 2022). The team takes a rights approach to its work with children, including recognising children's right to play. Through playful engagement the team works with children to prepare them for treatment and or intervention, using distraction techniques to lessen the impact of such processes and supporting with post-procedural play activities. The hospital employs playworkers and play specialists, both of whom support children and families in terms of normalising play, with play specialists also providing support with medical procedures and associated recovery (GOSH, 2022).

GOSH (2021) provides the example of four-year-old Jake and his mother. Jake was diagnosed with brain cancer and was losing his sight, just before the first COVID-19 lockdown. Members of the play team were able to build relationships with Jake and gain his trust. They found out that at home he would put on dance parties, and the play team worked to recreate this at the hospital, drawing up flyers and giving him musical instruments, playing music, pulling down the blinds and having disco lights. Playing in this way gave Jake some sense of control in a situation that was otherwise completely out of his control. Jake's mother, Danielle, said:

'Through our experience of working with the play team, I now realise and appreciate the vital role play can have during difficult experiences, like being in hospital, or being stuck at home in lockdown … Even though it can be a dark time, play offers you some light, allows the child to express themselves, and gives them the opportunity to be a child' (GOSH, 2021, p. 10).

5.9.4 Play in prisons

Wragg (2016, p. 5) observes that playwork often appears 'in the nooks and niches overlooked or considered to be beyond the remit of the wider children's workforce'. One example of this might be family visitor centres in prisons. Traditionally, family visits to prison would entail the family and the prisoner sitting round a table with little else to facilitate relations than perhaps a few children's books and some well used toys. These typical conditions can make visits emotionally stressful, since the stark environmental context inhibits natural connection and makes for stilted conversation and artificial relations rather than supporting family members to cope with the emotional burden of separation (Lockwood *et al*., 2022; Woodall and Kinsella, 2017). Adding this to the stresses involved in getting to the prison and the searches that are a part of security measures can often result in children not wanting to attend family visits (Woodall and Kinsella, 2017). Family breakup due to incarceration is common and is a key factor in recidivism (reoffending). Prisoners' children are subject to the trauma of separation from a parent, resulting in increased likelihood of mental and emotional ill health in comparison to other children. Additionally, children are more likely to become offenders themselves with the potential for incarceration (Woodall and Kinsella, 2017).

Playwork-staffed visitation play projects are becoming more common in prisons. However, due to access challenges and ethical demands of studying these projects and populations, research is still limited on their efficacy, particularly in terms of longitudinal evidence. Given ethical concerns, the example we use here, unlike many others we have been able to cite, is anonymised.

Playwork-staffed projects in prisons work in various forms, facilitating play with visiting children whilst other family members can talk, creating the conditions in a visitor room that make for relaxed engaging encounters where the families with children can play together, providing play resources to facilitate family play or modelling playful interactions for parents who feel they need that support (Davis, 2008; Hart and Clutterbrook, 2008; Woodall *et al*., 2014; Wragg, 2016). Such projects report a range of holistic benefits for children and their parents both incarcerated and non-incarcerated. Woodall and Kinsella's (2017) study of a playwork visitation project in a prison in the north of England established that opportunity to play, and the relaxed environment this created, improved the quality of family visiting time, enabling prisoner and family to interact with one another more normally, giving rise to increased physical contact and freer, more authentic physical movement and interaction. Furthermore, this meant that the imprisoned parent could understand more about their child's developing competencies, providing further opportunities for conversation, engagement and understanding, and so improving their sense of family wellbeing (Woodall and Kinsella, 2017; Woodall *et al*., 2014). The relaxed atmosphere and the ability to

play enabled families to chat whilst at play, often being able to talk through things more freely as well as using more of the available time allocated for a visits because the visit was more enjoyable for all (Woodall and Kinsella, 2017). Importantly, children experiencing these visits were much more likely to want to accompany parents on subsequent family visit because the visits were more fun, easing the trauma of separation and building and maintaining family bonds, as demonstrated in this quote from a prisoner focus group:

'One of my daughters wrote to me the other day. But she said, "dad, why did you leave me, mum, and then put all her sisters' names, in this situation?" So when she's come up and we've been on a play visit, we've managed to have a conversation. Our conversation has been very open. She's only five. Oh yes, she can see what's going on. And ever since then, our connection has been stronger, because we've managed to speak, because of them visits. That's what she's got out of them. She's got to sit down, find some space to sit and enjoy me as a person' (Woodall and Kinsella, 2017, p. 848).

5.9.5 Play in schools

Playtime in UK primary schools, despite significant reduction over the last 30 years (Bains and Blatchford, 2019), accounts for around 20% of the school day with up to 600 play times per school each year (Ardelean *et al*., 2021; Follett, 2017). The associated cost of supervising this time has been estimated as totalling some £750 million (Ardelean *et al*., 2021). As such, playtime in school accounts for a significant proportion of the time children can spend playing and there is a range of playtime interventions aiming to influence how children spend their playtimes. Many interventions are primarily aimed at improving children's levels of physical activity (Parrish *et al*., 2020) as a response to concerns about sedentary lifestyles, inactivity, obesity and associated health outcomes.

Playtime supervision during the lunchtime period in the UK is predominantly staffed by auxiliary staff on low rates of pay (Bains and Blatchford, 2019) with little support for the role by way of training, planning and reflection time or leadership (Ardelean *et al*., 2021; Follet, 2017). These factors influence Bains and Blatchford's (2019, p. 93) argument that playtime supervision 'needs to be seen as important and worthy of as much planning and forethought as that given to supervision and teaching within the classroom'. In their review of the literature on play in schools, Ardelean *et al*. (2021) draw on Holden (2006) and Beunderman (2010) to suggest that three interrelated values can be brought about through playtime interventions to improve children's opportunities for play. These are:

- instrumental value, the potential for play to contribute to a range of development benefits
- institutional value, the benefits to be gained by the institution in respect of educational outcomes, concentration in class and less time spent resolving issues arising from negative experiences of playtime
- intrinsic value, the benefits of playing for its own sake, manifest in children's enjoyment of play times.

Without this intrinsic value, the other two forms of value will be limited.

Ardelean *et al*. (2021) go on to identify three main interventions to improve playtimes: interventions to improve physical activity levels, the introduction of loose parts, and the greening of school playgrounds.[202]

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[202] The greening of school playgrounds is reviewed in section 5.6.3.

Many of the interventions to increase physical activity have focused on playground markings or permanent physical changes such as introducing particular pieces of play equipment. Such interventions have been found to increase levels of moderate to vigorous activity, but results have not been sustained over time (Ridgers *et al*., 2010). The introduction of loose parts into playgrounds has also been effective in raising physical activity levels but in a more sustained manner (Bundy *et al*., 2017; Engelen *et al*., 2018; Hyndman *et al*., 2014a; Tawil, 2017; Taylor *et al*., 2014). This includes the kinds of movements that cannot be captured by accelerometers, heart monitors or pedometers, such as lifting, construction, tugging and dragging heavy items (Bundy *et al*., 2017). Other benefits of introducing loose parts to school playtimes (often with the addition of staff training and/or mentoring support) include children engaging in more complex and varied forms of play (Bundy *et al*., 2009; Verberne *et al*., 2014), more collaboration and creativity, and fewer incidents and accidents (Lester *et al*., 2011; McLachlan, 2014; Sterman *et al*., 2020). A review of loose parts Play Pods in schools, some of which had been in operation for several years, also found that:

- children were more inclusive in their play of those previously on the periphery

- there was better integration of boys and girls playing and of collaboration across year groups

- there was less boredom and aggression

- staff were more motivated and children happier, with better engagement back into lessons after playtime (James, 2012).

The Sydney Playground Project

An initial 11-week study introducing loose parts to a primary school playground found that along with significant increases in both aerobic and resistive physical activity (such as lifting, dragging, constructing), children also engaged in more collaborative, imaginative, creative and social play, but that teachers tended to be risk-averse. This led to a broader research project that operated in two phases: the first from 2011 to 2014, was a cluster-randomised controlled trial with 12 Sydney primary schools and the second from 2014 to 2017, working with five school-based programmes for disabled children (The Sydney Playground Project, 2017). Both projects had two elements:

'(a) placing novel loose materials with no obvious play value on the school playground; and (b) conducting risk reframing sessions with teachers and allied health professionals (educators) and parents to allow children to have increased choice and control in play through reflection, observation, and practice. A key aspect of the intervention is that educators are asked to allow children to engage with the materials with minimal adult direction' (Sterman *et al*., 2020, p. 1).

The first three-year study also found increases in children's physical activity and decreases in sedentary behaviour. Children again engaged in creative, social and active play but staff now also understood the benefits of risk-taking and felt pleased to be thinking about what children could do rather than what they could not (Bundy *et al*., 2015).

The second study, working with disabled children, chose loose parts that, in addition to their general characteristics, encouraged gross motor play and provided interesting sensory experiences (Sterman *et al*., 2019). Although appreciating the benefits of risk-taking for disabled children, staff were more keenly aware of their duty of care to the children. Staff reported that initially, they had low expectations because they viewed the loose parts as (useless) junk, had been asked to step back in their supervision, and had underestimated the children's imagination. Nevertheless, as with the first study, the children played imaginatively, co-operatively and creatively, sometimes surprising the staff with their ability to negotiate risk. In this way, 'The introduction of the loose parts challenged educators' low expectations. The loose parts acted as a catalyst to support new understandings of children's abilities and promote play' (Sterman *et al*., 2019, p. 71).

The Isle of Man Play Bins Programme

The Play Bin Programme is another playwork-led, loose parts-based playtime intervention. The project is facilitated by a team of playworkers that work with schools intensively but over a short period (around one month) introducing loose parts and modelling playwork practice during the lunchtime break period, and providing training in respect of risk management practices and support with associated policy development. After this, ongoing delivery of the programme is handed back to schools, with the playworkers providing support remotely or via short school visits (Tawil, 2017).

Tawil's (2017) study included children, lunchtime supervisors, teaching staff and head teachers from two schools, one in its first six months of delivering the programme and one in its third year. Findings of the study included:

- an improved experience of playtime resulting in reductions in perceived disruptive behaviour and occurrences of accidents and injury

- increases in physical activity, in inter-age play and inter-gender play, all evident within the earliest months of the programme as well as the third year of delivery

- reduction in marginalisation and isolation of individuals or groups of children, with improvements in inclusion

- reduction in the dominance of football.

Confidence and competence of school staff to deliver the programme to its potential developed over time. Holistic benefits of the programme in respect of socio-emotional, intellectual, creative, and physical domains were observed immediately and maintained over time. Positive influence of the programme to teachers' pedagogical approaches appeared emergent at six months and profound at three years. Mentoring and modelling accompanied by sustained support contributes substantially to the confidence and competence of school staff to deliver the programme (Tawil, 2017).

As so often is the case, children were acutely aware of their experience and that of those around them, and many of the children commented on how the staff were more relaxed and happier, trusting them in their play. One Year 6 child, reflecting on the influence of the programme on school staff in their third year of programme delivery, said, 'They take more notice, they are more aware of what you're doing, and they are thinking about it, and so are we!' (Tawil, 2017, p. 90).

Outdoor Play and Learning[203]

Outdoor Play and Learning (OPAL) is a whole school culture change programme with foundations in playwork theory and practice. Over 18 to 24 months an OPAL mentor works with the school to align issues of policy, practice, resources, and spatial development so that these combine to create the conditions for optimal playtimes (Follett, 2017). An independent evaluation (Lester *et al*., 2011) established positive influences on school staff attitudes and school culture and practices, particularly in relation to risk management, adult control, and all-weather play. Furthermore, because of the programme, schools often creatively altered their grounds, opening up more opportunities for play. Children's patterns of play subsequently changed to incorporate a greater variety of play behaviours as a result of improved access to time, space, and resources for play (including loose parts). Reductions of perceived disruptive behaviour and increases in children's enjoyment of playtimes were also established (Lester *et al*., 2011).

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[203] In the interests of transparency, we wish to add that at the time of writing this review, Ben Tawil and Mike Barclay as Ludicology are OPAL franchise owners, delivering OPAL as a part of their play consultancy services across Merseyside, Cheshire and Shropshire.

A more recent evaluation of a pilot of the OPAL programme in six primary schools in Toronto, Canada, found that more children were playing outdoors more of the time. The children's play was more engaging, inclusive and imaginative, with children saying they were happier and had more friends to play with than prior to the intervention. Staff also felt more comfortable intervening less often and felt that the children had become more resilient, with improved communication, negotiation and risk management skills. Support from parents meant that children were coming to school dressed for outdoor play, and when it rained 'not one child was knocking on the window to come back in' (Mitra *et al*., 2020, p. 30). However, schools found some challenges regarding the sustainability of the programme, including adequate training for supervisors and the continual replenishing of loose parts (Mitra *et al*., 2020).

5.9.6 Play in early years settings

There are many forms of provision for very young children and given that this is primarily a review of the literature, it has not been possible to include the diversity of organisations and individuals that offer informal workshops and sessions for young children, for example in community settings, outdoors, in cultural venues and so on. Here we have focused on registered early years childcare and settings that prioritise play. Given the requirements of registration across most minority world countries, the focus of both promotional and academic literature has been on early learning.

Brooker (2014, p. 154) describes the play-pedagogy interface as a site of 'unresolved tensions [that] continue to pose challenges to researchers and practitioners'. The assumption that children learn through play has been described as an unassailable orthodoxy, with advocacy and professional practice historically swinging between adult-led ('pedagogy') to child-led ('play') approaches (Brooker, 2018), to which more recently has been added a 'technicist' approach to educational play (Brooker, 2014). Technicist approaches can be seen in policies for the early years, for example the Early Years Foundation Stage in England (covering children aged two to five years) and the Foundation Phase in Wales (covering children aged three to seven years). These are outcomes frameworks that specify age/stage developmental milestones against which children are assessed (Department for Education, 2022; Welsh Government, 2015). The EYFS statutory framework states that 'children learn by leading their own play, and by taking part in play which is guided by adults' (Department for Education, 2021, p. 16). The Foundation Phase Framework in Wales makes numerous mentions of play, stating that 'children learn through first-hand experiential activities with the serious business of "play" providing the vehicle' (Welsh Government, 2015, p. 3), adding that 'there must be a balance between structured learning through child-initiated activities and those directed by practitioners' (*ibid*., p. 4). In this way, play is bound up in tensions between freedom and guidance and between play and required, pre-defined learning outcomes (Hewes, 2014; Leggett and Newman, 2017; Loizou, 2017; Rekers and Waters-Davies, 2021; Santer *et al*., 2007; Wood, 2010, 2014, 2019). Some have suggested a continuum with self-organised play at one end, adult direction at the other and adult responsiveness in between (for example, Wood, 2014, 2019). Hewes (2014), drawing on Somerville and Green (2011), suggests that supporting spontaneous free play in early years settings requires a pedagogy of 'organized chaos, one that calls upon the educator to be "responsibly uncertain," and "willing to risk the unknown"' (p. 293) alongside pro-active working towards co-creating the conditions for a culture of play embedded in ideas of community and citizenship.

Outdoor nurseries

Generally, there has been a move towards encouraging outdoor play, with accompanying recognition of alignment with the values of the Foundation Phase Framework in Wales (Rekers and Waters-Davies, 2021) and parallel frameworks in other countries. Nevertheless, the tensions remain, particularly between bottom-up observations of children's play and top-down pressures to encourage self-regulation as a part of school readiness. In a vignette where children play with a muddy puddle, Rekers and Waters-Davies (2021) show how the teacher intervenes to encourage approved ways of playing, and later in interview comments that the children 'need to learn how to play without being so out of control' (p. 153). The children involved, the researchers and forest school practitioners all had different interpretations of the videoed vignette, highlighting the tensions between a focus on pedagogical outcomes and children's play.

Similarly, Moore's (2015) study highlighted the mismatch between adult pedagogic intentions for children's outdoor play and the importance to children themselves of secret places. Although this study began with the intention of finding out which areas of the playground the children liked, the researcher was struck by the mention of secret places and how this resonated with her long-forgotten memories of affective relationships with secret places in her own childhood play. Given this, the researcher switched to talking to the children about these special places with which they had formed attachments, and the children responded willingly, often whispering their stories of where they played. These secret places were often out of sight of adults, but some were also 'hidden in plain sight' (Moore, 2015, p. 27), their secrecy being in the fact that no-one knew that these places were secret and special to those children. Rather than revealing the children's secrets, the research aims more ethically to highlight to adults the importance of children having time, space and permission to create such places for themselves.

In one example of an outdoor nursery in 25 acres of woodland in Fyfe, Scotland, Latto (2020) describes the unhurried atmosphere and how what the woods offer the children, together with a few simple resources, is enough to spark many forms of playing. She also talks about the various areas of the woods that the children have named: the Moon Den, the Cooking Tree, Where the Dragons Live, the Tree with the Hole.

Loose parts in early years settings

Outdoor play in natural settings will by default involve loose parts (see, for example, Elliott, 2021). One study found that children engaged in more, and more complex, sociodramatic play in outdoor areas with natural features than they did in a traditional early years playground (Morrissey *et al.*, 2017). The authors suggest that this may be due to both the openness of the landscape and resources and a greater sense of seclusion (see also Moore, 2015, described above).

Alongside this, there is a growing interest in the use of loose parts in early years practice more broadly (Branje *et al.*, 2022; Flannigan and Dietze, 2017), although we could find few academic articles focusing on this. The Physical Literacy in Early Years (PLEY) project used a randomised control, multi-methods approach to the introduction of loose parts into 19 early years settings across Nova Scotia, Canada. Qualitative data from staff focus groups showed that they felt children were very active, engaging in a wider, more complex range and combination of movements with increased confidence in skills such as balancing and co-ordination. The loose parts offered challenges to children that meant they engaged in more risk-taking. In addition, staff reported children playing more imaginatively, creatively and collaboratively, problem solving together. Staff also commented on the enjoyment children drew from playing with the loose parts, with lots of laughter and smiling (Spencer *et al.*, 2019).

These findings align with Flannigan and Dietze's (2017) study of loose parts use in one early years setting, particularly in terms of children playing collaboratively and co-operatively, and engaging in a broader range of play forms including risk-taking. In addition, they found that a common theme was weapon or war play, playing out narratives of goodies and baddies. The authors suggest that this may be due to a combination of the open

space, flexibility of resources and staff openness to 'movement and verbal expression, such as running, chasing, fleeing, climbing, and screaming, which are all common movements of weapon play' (p. 56). Boys and girls played together, and although boys were more likely to engage in war play, good versus bad narratives and rough and tumble, the girls did too; similarly, boys engaged in play with themes of the home and family.

5.9.7 Out of school childcare

Whilst there is a small body of literature on the economic value and availability of out of school childcare internationally (see, for example, Plantenga and Remery, 2017), there is even less recent research that looks at children's play or the role of adults in out-of-school care (Holloway and Pimlott-Wilson, 2018; Jackson, 2017; Kane, 2015). This is in contrast to the growing body of literature that looks at play during break times in schools. In the UK, out of school clubs are often but not always staffed by playworkers. Kane (2015), comparing free-time pedagogues in two Swedish after school free-time centres with playworkers in an English out of school club with a playwork ethos notes the differences and similarities in how staff talk about play; finding that this is influenced by their respective 'practice architectures' and how educational and play practice architectures interrelate.

In the UK, it can be difficult to bring a playwork ethos to out of school care if the clubs are held in school premises, due in no small part to the sharing of space both physically and culturally, and associated competing values (Jackson, 2017). Staff often feel they have a duty both to facilitate children's play and to regulate their behaviour in ways that are acceptable to the school (Smith, 2010). Despite this, children often value out of school care clubs for the opportunities they provide for playing with friends (Holloway and Pimlott-Wilson, 2018; Moir and Brunker, 2021), although many are not keen to go every day (Holloway and Pimlott-Wilson, 2018). For those left at the end of the session as children are progressively collected and the opportunities for play diminish, the main activity becomes 'waiting' (Hurst, 2019).

5.9.8 Play in museums and other cultural institutions

'All cultural processes within a civilisation are likewise born in play and nourished on play. From poetry to music, from ritual to philosophy, and everything else besides, all owe key aspects of their original existence and form to certain patterns of play' (Lester, 2020, p. 119).

'Places that support and accommodate play have the potential to help visitors feel welcomed, overcome barriers to visiting and to change how families feel in museum spaces. This enables visitors – children and families in particular – to be more relaxed and to worry less about doing something wrong' (Derry, 2021, p. 3).

These two opening quotations make the case for encouraging playfulness within cultural institutions. Although cultural institutions have been keen to encourage children and families to visit, often their play offer has consisted of a separate play area, either inside or outside. More recently, there have been moves to make cultural institutions generally more play-friendly and playful (Gill, 2010; Lester *et al*., 2014). Drawing on the work of the National Trust, Derry (2021, p. 4) suggests four principles that can support playfulness across sites, whether indoors or outdoors:

'sociable spaces for people to relax or be playful; a network of places to go, things to play with on the way and planned interventions to travel through and on; giving invitations – children will find their own stories if you let them; loose parts, which can be changed and controlled with multiple outcomes.'

Whilst there is still little that we could source written on the playful approach taken in cultural and heritage sites in the academic literature nor in high level statements of commitment from, for example the Arts Council Wales, Heritage Lottery Fund or the museums, there does appear to be evidence of a growing interest in the provision of play in these institutions and documentation of this can be found at both policy level and in the applied literature/ blogs/conference papers and presentations.

Some examples of cultural institutions paying attention to children's play include: artist and play advocate Nils Norman working with the National Museum of History, St Fagans in Cardiff, to develop a play space complementing the historic buildings on the site (Norman, 2017); the Victoria and Albert Museum's redevelopment of their Museum of Childhood to make it more experimental and interactive, focusing on imagination, play and design (V&A Museum, 2022); and South London Gallery's continued commitment to play since 2008, taking its form through various spatial and interactive instillations both at the gallery and in the wider community bringing together ideas from both the art world and playwork (South London Gallery, 2022).

The Happy Museums Project

The Happy Museums Project operates across England and Wales supporting museums to take a holistic approach to sustainability and wellbeing and become more play friendly, and it encourages museums to consider how they might create the conditions within and across sites that enable 'opportunities for playfulness, creativity, activity, interaction and aesthetics' (Butler, 2012). One example is an action research project funded through the Happy Museums Project at Manchester Museum with the aim of embedding playfulness across strategic development, policy and practice of the museum thereby enhancing the wellbeing and happiness of children and families visiting. Play specialists with playwork backgrounds worked with front of house staff through a series of workshops to support an understanding of children's playful disposition and to consider what this meant for the practice and spatial arrangements and expectations of visitors at the site (Happy Museum, 2016; Lester *et al*., 2014). Alongside this, staff were encouraged to document and share observations and to reflect on these. Working practices were adapted to support children's playfulness across the museum site, encouraging adults to join in if they wanted and to be more sympathetic to children's playful expressions. Following this, museum staff were supported to develop ways of reflecting critically on how they might better incorporate playfulness not only through front of house and visitor experience but also in strategy and policy documentation and the means by which efforts to improve playability can be monitored and evaluated and further developed. Their work became more about 'paying attention to the conditions under which children's playful dispositions may be actualised' (Lester *et al*., 2014, p. 3) rather than thinking in more traditional terms of play provision that is situated and bounded. In a follow-on project, Manchester Museum worked with play consultants to develop 'a playful and accessible handbook … [that] celebrates and promotes play in our shared public, cultural space and sets down some key ideas for changing or improving museum and gallery approaches towards play' (Jennings, 2016).

Chester Zoo

Since 2016, Chester Zoo has been working with a range of play consultants to develop how they support children's play (Chester Zoo, 2022). Initially the zoo commissioned a review of how one of its green open spaces was used with the intention of refurbishing it for play. The investigation became much wider, looking at how the whole site worked for children and families and led to both the refurbishing of the play area and a broader investment in making the zoo more playful (Tawil and Barclay, 2018). Workshops were held with zoo staff 'to help us recognise playful behaviours, enhance play through our interactions with guests, get to grips with play principles and test different playful interventions' (Chester Zoo, 2022). As well as dedicated play areas, there is also a range of playful invitations across the whole site (one example being markings and a sign designating a 'skipping lane' where adults and children were seen to skip). The motivation for such a focus stems from the belief that being able to play across the zoo will enhance children's experiences of the zoo with knock-on benefits for attachment to the zoo and engagement with conservation-focused learning experiences (Chester Zoo, 2022). In their evaluation of the zoo's work to enhance their play offer, Tawil and Barclay (2018) found that staff felt the play improvements had led to increased membership and visits, that there was greater satisfaction with both the dedicated play areas and the zoo-wide games and invitations, with more fun and laughter as children and adults engaged with the play invitations. However, there was a need to balance playfulness with the educational purpose of the zoo. Observations showed that the two destination play areas were well designed, popular, well used and could cope with a range of ages through the diversity of what was on offer. The play invitations varied from being playful to educational, some being play prompts and others more directly referring to knowledge about the animals. Alongside these invitations were a range of 'liminal play spaces' with objects that clearly attracted children, like bronze animal statues. Some of these were intentional, others less so (for example, puddles or low rope fences). The overall feeling was of a cultural promotion of playfulness throughout the zoo (Tawil and Barclay, 2018; Barclay and Tawil, 2020b).

Occuplay Museums

Occuplay Museums was a temporary collaborative project that worked in the UK and the USA in 2018 to 'explore the potential for playfulness in museums, galleries and cultural spaces' (Dickerson and Derry, 2021, p. 161). The curators emailed playful prompts to participating institutions over a four-week period and acted as guides, and the institutions carried out those prompts and documented what happened. Examples of prompts included drawing maps of childhood play memories (carried out by both staff and visitors) and setting up hopscotch somewhere on the site. The level of participation and engagement varied enormously. Sometimes the prompts gave permission for minor disruptions to the habits of the workings of the museum and got people talking about play, infusing a sense of enchantment. Elsewhere, on the suggestion of their guide, one institution turned the prompt to carry out a risk-benefit assessment (RBA) of a playful activity into a RBA on one of their many rules for behaviour, namely the rule that there was no sitting on the floor. The rule came into being because sitting on the floor was a form of protest and the institution could not support that. The RBA process allowed them to see it more playfully and to open up the possibility of dismissing the rule, even though the rule still existed when the authors wrote about their experiences. Dickerson suggests that the rule, along with other rules such as no running and being quiet, was ultimately about giving a sense of control and saying that the collections were more important than people. In such institutions, change towards playfulness would be very gradual: 'Occuplay, for me, is not about glamouring a flock of taxidermied birds to go pooping through the museum. Occuplay is about little things and trying to figure out what our scale of play is in museums' (Dickerson and Derry, 2021, p. 170).

5.10 Returning to a relational capability approach: closing thoughts on adults' response-ability for children's play

Having presented our review of a selection of the literature spanning childhood studies and policy for children (chapter 2), the role of play in children's wellbeing (chapter 3), and the patterns of children's play today (chapter 4), this chapter has considered adult responses to supporting children's play. In this final section, we offer a brief summary of the key themes emerging from contemporary research and practice to bring together the conceptual tools introduced, namely the concept of a relational capability approach, the twin processes of account-ability and response-ability and Amin's (2006) four register of a good city (applicable to any size settlement, although in diverse ways).

5.10.1 A relational capability approach

In chapter 2 we put forward the idea of a relational capability approach to thinking about the relationship between children's play, their wellbeing and broader political agendas, particularly the Well-being of Future Generations (Wales) Act 2015. The capability approach has been explored by a growing number of children's wellbeing researchers (for example, Biggeri *et al*., 2011; Camfield and Tafere, 2011; Domínguez-Serrano *et al*., 2019; Kellock and Lawthom, 2011; Schweiger, 2016), drawing on the works of philosopher-economist Amartya Sen and philosopher Martha Nussbaum.

Capabilities are about the existence of the resources, opportunities and freedoms for people to be able to be and do what is of value to them. They also refer to whether people can 'convert' the resources and opportunities available into 'functionings' (people *actually* do and are the things they value) across personal, social and environmental factors (Robeyns, 2017). A key criticism of this approach has been its emphasis on individual freedom and rational choice (Fattore and Mason, 2017). Throughout this review, we have worked with contemporary ideas from childhood and wellbeing studies that put forward a more relational perspective, recognising that play and wellbeing do not reside inside the bodies and minds of individual children but are dynamic and fluid processes that emerge both from and as the entanglements of bodies, space, material objects, desires, histories and much more (Andrews *et al*., 2014; Coffey, 2020; Lester, 2020).

Given this, we proposed a relational capability approach that pays attention to the 'material and discursive entanglements that render children capable' (Murris, 2019, p. 56). Such a proposal has the potential to work with both a rights-based (intrinsic) and a social investment (instrumental) policy understanding of both play and wellbeing, whilst also recognising the powerful forces of neoliberalism described in chapter 2 and elsewhere throughout the review.

Chapter 3 highlights how much of the contemporary research into playing and being well emphasises the entanglements of mind, body, senses, affect, movement and *milieu* (the physical, social, economic and political environments that children are affected by and also affect). This is the case with research from evolutionary studies, neuroscience, postdevelopmental psychology, sociology, anthropology, geography, philosophy and more.

The biological process of homeostasis (an automatic response to the assemblage of mind-body-senses-environment conditions) means that people constantly seek out ways of feeling better (Damasio, 2018) and for children this is often through playing (Lester, 2020). When children can participate fully in playing, the pleasure this gives rise to is central to wellbeing, health and adaptiveness, both for the time of playing and beyond (Burgdorf *et al*., 2017; Coffey *et al*., 2015; Fredrickson, 2013; Granic *et al*., 2014; Panksepp, 2010, 2016; Tugade *et al*., 2021). This statement is more than the truism that play is fun. Children's engagement may be serious and engrossed (Henricks, 2015a; McDonnell, 2019), or even harmful (Sicart, 2014; Sutton-Smith, 2017). Sometimes, those involved in games are mistreated to the extent that the experience is not good for them (Bryan, 2019, 2020,

2021; Cook, 2019; Göncü and Vadeboncoeur, 2015; Grieshaber and McArdle, 2010; Kinard *et al*., 2021; McDonnell, 2019; Saltmarsh and Lee, 2021; Sutton-Smith, 2017; Trammell, 2020). Playing is not exclusively a force for good, depending on the conditions from which it emerges. This is why we talk about playing well: when children can play well, life is better for that moment. Playing well, however, is not only a matter of personal responsibility or skill. The pleasure of playing well motivates children to seek out more playing (di Domenico and Ryan, 2017; Trezza *et al*., 2019). It also releases neurotrophins that can provide lasting protection against depression (Panksepp, 2010, 2012, 2016; Panksepp *et al*., 2019).

The pleasure of playing arises from experiencing the vitality of emotions such as fear, anger, disgust and surprise and overcoming them, for example through pretend play, rough and tumble play, risk-taking, rude rhymes, horror stories, video games and generally mucking about (Eberle, 2014; Granic *et al*., 2014; Panksepp, 2010, 2016; Panksepp and Panksepp, 2013; Panksepp *et al*., 2012; Pellis and Pellis, 2017; Pellis *et al*., 2014; Sharpe, 2019; Sutton-Smith, 2017; Vanderschuren and Trezza, 2014). Such forms of playing help to prime neural networks to respond flexibly and creatively to novel situations without over-reacting, learning how to deal emotionally with being surprised or temporarily out of control (Andersen *et al*., 2022; Gray, 2019; Kellman and Radwan, 2022; Pellis *et al*., 2014; Pellis *et al*., 2018; Sgro and Mychasiuk, 2020; Sharpe, 2019; Siviy, 2016; Vandervert, 2017). In this way, play's entangled embodied, sensual, dynamic and affective dimensions can add to its vitality and contribute to physical health and strength, emotion regulation and healthy stress response systems.

Alongside this, playing well also provides the relational context for developing healthy attachment systems to:

- caregivers (through early forms of play such as peek-a-boo and tickling) (Bergen *et al*., 2016; Gordon, 2015; Gorrese, 2016; Gorrese and Ruggieri, 2012; Jackson and McGlone, 2020; Masten, 2014; McGinley and Evans, 2020; Panksepp, 2010);

- friends (characterised by conflicts as well as affective solidarity and support) (Bagwell and Schmidt, 2013; Beazidou and Botsoglou, 2016; Brogaard-Clausen and Robson, 2019; Carter and Nutbrown, 2016; Del Giudice, 2015; Fattore and Mason, 2017; Holder and Coleman, 2015; Offer and Schneider, 2007; Petrina *et al*., 2014; Stenning, 2020; Weller and Bruegel, 2009; Wells, 2011b; Wood *et al*., 2013);

- other non-human animals (Christian *et al*., 2020; Dueñas *et al*., 2021; Moore and Lynch, 2018; O'Haire *et al*., 2015; Rautio, 2013b; Tipper, 2011);

- place (Bartos, 2013; Bauer *et al*., 2022; Bourke, 2017; Jack, 2015, 2016; Jansson *et al*., 2016; Kearns *et al*., 2016; Koller and Farley, 2019; Long *et al*., 2014; Malone, 2013, 2015; Wales *et al*., 2021; Weir *et al*., 2022; Witten *et al*., 2019).

Such attachments contribute to a sense of security and belonging and the sense for children of being able to affect their own lives and the lives of others.

All this means that, when conditions are right, **children can create their own wellbeing**. This presents a strong ethical, moral, economic and social argument for adults to work towards producing those conditions through both policies and practices. If playing is seen as one of the ten central human capabilities (for all ages), as it is in Nussbaum's list of core capabilities (Nussbaum, 2007), then a relational capability approach to wellbeing would need to pay attention to the spatial, temporal and affective conditions that support the resources, opportunities, freedoms and capability to play. Such attention can be developed through the twin processes of account-ability (accounting for children's *capability* to find time and space for playing) and response-ability (responsiveness in terms of rethinking habits and routines to enhance children's *capability* to play).

5.10.2 A model for considering response-ability for children's play

Since play permeates all aspects of the everyday lives of children and families and the institutions and spaces they frequent, children's capability for play is influenced by initiatives far broader than those solely focused on improving opportunities for playing. For example, actions to improve children's freedom of movement will inevitably influence possibilities for children to find time and space for playing, although the walkability of a neighbourhood cannot be absolutely equated to its playability (Aarts *et al.*, 2012). This makes it difficult to separate interventions whose primary purpose may initially appear tangential, such as the design of the built environment, from children's capability to find time and space for playing. Furthermore, no project or intervention takes place in a vacuum, in isolation from historical policy or practical contingencies. Whilst the research on a project may imply a single starting point – a local activist, a new housing development, a new policy or regulation, for example – any initiative will be part of a greater whole or ecosystem.

Appreciating this interdependence and interrelatedness requires an understanding of space as constantly being produced through the entanglements of design, everyday spatial practices and people's desires to bring meaning to life. For children, this manifests through constantly seeking opportunities to play wherever and whenever the conditions allow. Given the far-reaching benefits of play outlined in chapter 3, this is a question both of spatial justice and of children's capability to realise their desires to play (Lester, 2020; Russell *et al.*, 2019, 2020).

Here we offer a model that can be useful in making sense of the complex interrelationships between space, power, a relational capability approach to children's right to play and the twin processes of account-ability and response-ability. The model draws on and adapts the work of geographer Ash Amin's (2006) ideas on what constitutes a 'good city', applying his four registers of repair, rights, relatedness and re-enchantment. These registers can work together to nurture a play-friendly country and create environments that are more 'open to children's playful presence' (Lester and Russell, 2014a, p. 12). This framework has been a core feature of research into the Welsh Government's Play Sufficiency Duty since 2013 (Lester and Russell, 2013a, 2014a; Russell *et al.*, 2019, 2020) and continues to influence thinking about the interdependent, relational ways in which partners and stakeholders both account for and respond to issues influencing and influenced by children's play (see for example, Tawil and Barclay, 2020). Furthermore, this conceptualisation serves to underscore the relational capability approach promoted throughout this review.

We introduce these concepts here to describe the range of ways efforts to support children's capability to play operate across the strategic and the practical.

Repair and maintenance

The repair and maintenance register incorporates the work that needs to be done to protect and maintain the times and spaces currently available for children's play and to make reparations for spatial injustices for children. 'For environments to support children's play, the basics need to be in good repair, and habits of practice need to be held up to scrutiny to see how spaces might exclude children' (Russell *et al.*, 2019, p. 5). Some of this is as basic as maintaining children's neighbourhoods, including playgrounds, in a good state of repair, something that has become more challenging due to austerity measures. For example, Russell *et al.* (2019) found that playground maintenance budgets in some local authorities in Wales had been cut to as little as £20 per play area per year. Beyond this, the register also applies to the domains of policy development and implementation; strategic partnerships; and a range of forms of knowledge exchange practices including research, advocacy, education and training. This register also includes making sure that play is considered during the planning of public services and spatial developments; securing funding for play provision and evidencing the influence of play interventions against funding outcomes; and negotiating permission for children's use of spaces for play. These indirect actions may appear to be 'remote', but they are essential partners to the more direct responses that take place at a local neighbourhood level, together contributing to the co-production of conditions that support children's ability to find time and space for playing (Barclay and Tawil, 2020c; Lester and Russell, 2013a, 2014a; Russell *et al.*, 2019, 2020).

Rights

For Amin, rights are held in common rather than individually. The rights register incorporates approaches that respect children's participation as citizens, including their right to play alongside other rights of freedom of thought, freedom of expression, freedom of association and peaceful assembly (gathering together), and freedom to participate in the public realm. Much of adult response-ability for this register is in terms of advocacy, linking it closely to the register of relatedness (see below). Advocacy can operate through influencing strategy and may include, for example, facilitating research with children about their opportunities for play; identifying groups of children or communities experiencing insufficient opportunities for play and taking action to address this; ensuring attention is paid to all children's right to play through impact assessment processes; and challenging organisational practices that unnecessarily constrain children's ability to play (Barclay and Tawil, 2020c). Advocacy can also be operationalised through:

• direct activation work with children at neighbourhood level

• developing local collective wisdom of where children play and working to protect those places

• identifying and providing additional support to individual children who are experiencing barriers to their right to play

• helping address other problems in children's lives that may be preventing them from being able to play

• enabling children to participate in local decision-making processes that impact on their opportunities for play, for example housing developments, road traffic plans, changes to spatial design or provision (Barclay and Tawil, 2020c, 2021; Russell *et al.*, 2019, 2020; Russell *et al.*, 2023; Tawil and Barclay, 2020).

Relatedness

Given the focus on relatedness in contemporary research in childhood studies and in wellbeing, and given that this review argues for a relational capability approach to play and wellbeing, this register becomes particularly pertinent. Relatedness is also very closely linked to the register of rights. Working in this register involves acknowledging interrelatedness and the value of working with difference. One such difference is the ways in which different children experience space, recognising that 'children inhabit the same environment as adults, experience it differently, and have a right to actualise what the environment offers for them as children' (Lester and Russell, 2013a, p. 8). At strategic level, it involves building cross-professional networks and partnerships, whilst at neighbourhood level it requires fostering relationships with communities, families and local businesses (Barclay and Tawil, 2020c; Russell *et al.*, 2019, 2020).

Re-enchantment

This register is mostly about reconnecting adults with the joy of playing and recognising how children's environments can support the moments of vitality that playing produces, whilst avoiding over-romanticising children's play. Sometimes this may be through talking to adults about memories of childhood play (linking to the other three registers). Sometimes it might be encouraging adults to disturb their habits, routines and attitudes and to think experimentally about how to make spaces more open to playing. Playworkers and other activators of public space may do this directly through demonstration, at play events or through their everyday practice. Others may disturb the habits of space by leaving play invitations (for example, chalk), or by pointing out the traces of children's play to make visible children's playful relationship with space (Barclay and Tawil, 2020c; Lester, 2020; Lester and Russell, 2013a, 2014a; Russell *et al.*, 2019, 2020).

5.10.3 Bringing the ideas together with research reviewed

Amin's (2006) four registers for a good city (repair, rights, relatedness and re-enchantment) also need to be considered relationally rather than as discrete categories for reviewing adult response-ability for children's capability to play. As such **relatedness** can be seen in the broadening out of research on adult support for play from designated play provision to children's capability to play in the public realm (Arup, 2017; Bornat, 2016, 2018; Bornat and Shaw, 2019; Gill, 2021; Jansson *et al*., 2022). Our review highlights in chapters 4 and 5 that one, if not the, major constraint on children's capability to play out comes from traffic, either moving or stationary. This offers increasing synergies between play advocacy and the political agenda for environmental sustainability, including active travel, low traffic neighbourhoods and greening the built environment. **Relatedness** is also evident in the ways that play advocates are increasingly working cross-professionally with those working in planning, highways, housing, parks and open spaces, green infrastructure, education and more. This is particularly apparent in Wales given the requirement to do so in the Play Sufficiency Duty, a requirement that has, according to Russell *et al*. (2019, 2020), been one of the biggest successes of the duty. Equally, response-ability for children's capability to play works in tandem with developing an account-ability for children's satisfaction with their opportunities to play. This too can be developed both through networking and professional development and also through ethical research with children to map their neighbourhoods (Russell *et al*., 2019, 2020). In addition, facilitating play in a range of settings including hospitals, prisons and cultural institutions further builds **relatedness**.

In terms of **repair** (and maintenance), play advocates have had a significant influence, particularly in Wales, across multiple and interrelated scales including national and local policy and strategy, engaging with adults while supporting playing in the public realm, and the broader community work of playworkers working in play provision, each of which affects the other (Russell *et al*., 2023). Such advocacy work operates across all four registers.

The austerity agenda has had a big impact both on play and playwork provision and the infrastructure to support this. Attempts to **repair** the effects of such cuts have included diversification of services and roles, both in attempts to generate income and also to work more closely with families struggling because of austerity measures, particularly through feeding children.

Repair can also be seen through the reparations made in the physical infrastructure of urban environments, many of which have been implemented through broader sustainability agendas as described above. Yet, as we have noted in this chapter, whilst physical changes can alter everyday spatial practices (such as removing traffic), children's capability to play out also depends on such changes being sensitive to local context and histories (Pérez del Pulgar *et al*., 2020) and often also needs changes to the social production of space through activation, recognised as an essential element of placemaking (Placemaking Wales, 2020).

Such activation can be provided by playworkers and other play advocates who can appreciate forms of children's playfulness often obscured in over-simplified, individual and instrumental understandings of play's value, including children's ingenuity, nonsense and more taboo forms of playing (Koch, 2018; Lester, 2020; Marsh and Bishop, 2013; Rosen, 2015a, 2015b; Russell, 2018a; Sutton-Smith, 2017).[204] Nussbaum (2007), in identifying play as a core human capability, specifically mentions the value of laughter. Neuroscientific studies of play highlight the importance of the joy of playing and its role in preventing depression (Panksepp, 2008, 2010, 2015; Sgro and Mychasiuk, 2020). Equally, studies of children's play cultures show its capacity for nonsense, sophisticated subversion and imagining the world anew (Corsaro, 2020; Koch, 2018; Lester, 2020).

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[204] See chapter 3, section 3.9.4.

What happens when play advocates work with other adults to bring these forms of playfulness to light, either through encouragement to pay attention to children or through sharing their own memories of play as a child, is that they become animated and begin to smile (Dickerson and Derry, 2021; Russell *et al.*, 2020; Russell *et al.*, 2023). These are powerful engagements that surface a **re-enchantment** with play, although it is important not to over-romanticise them:

'One of the key features of adult account-ability is increasing attentiveness to the everyday mo(ve)ments of children … This ability can be developed with practice as a form of enchantment, not in a naive, idealised, over-optimistic or romantic sense, or a refusal to accept the intolerable cruelties that are present in the world, but rather an openness to the delights and wonders that the everyday contains. Being alert to this and the possibilities that are always present for reworking these conditions reveals the world to be a lively place … Even in the most mundane environment, moments of enchantment are ever-present' (Lester, 2020, p. 59).

Paying attention to such moments can counter the forces of contemporary disenchantment with childhood evident in the negatively-valanced – and very real – concerns about obesity, mental health, crime and more (Lester, 2020). Enchanting adults through reconnecting them to the vitality, thrill, pleasure and nonsense that playing can offer is often an effective and affective way of showing that playing is how children help themselves to be well.
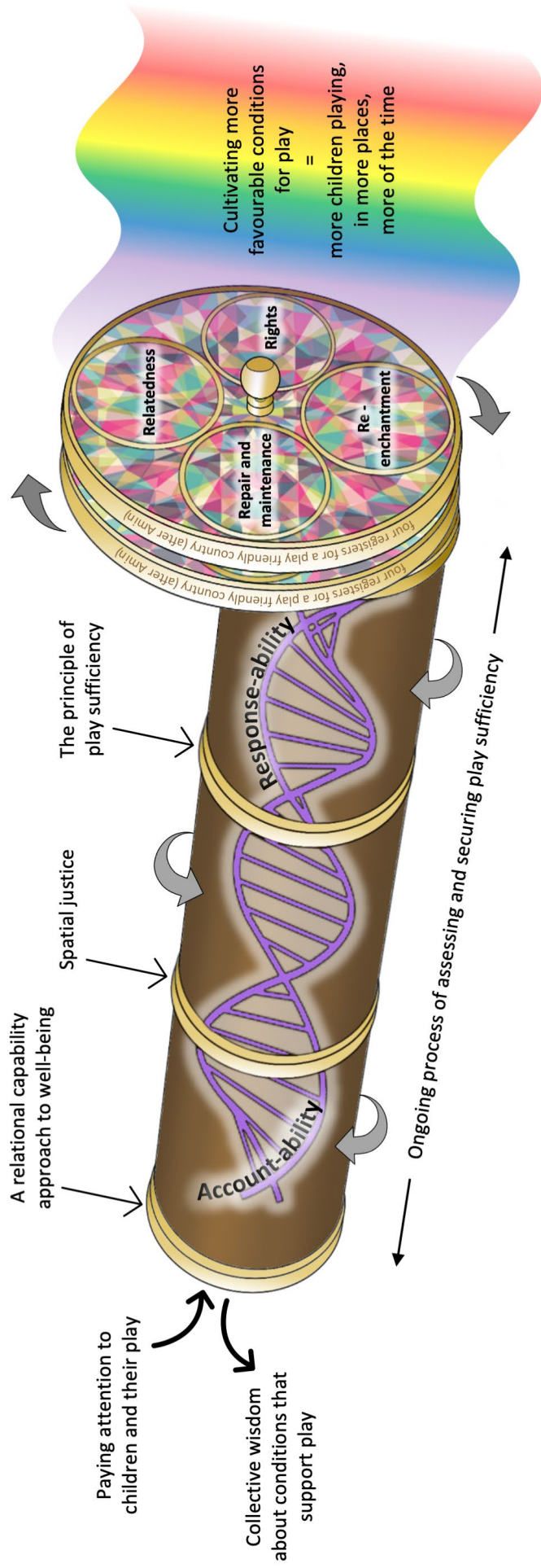
Running through all this is Amin's (2006) register of **rights**. As with many theories of wellbeing and play, rights are often conceived as being possessed by individual rights-holders. In Amin's vision, a good city is a 'socially just city, with strong obligations towards those marginalised' (Amin, 2006, p. 1015). His register of rights is closely linked to Lefebvre's (1969) idea of the right to the city, which includes but goes beyond important rights to services and goods: 'it is about the right to everyday social participation, to webs of connection, to making the city in ways that are not driven purely by the forces of capital, to shared moments that transcend daily drudgery' (Russell, 2020, p. 16). Such a view connects rights very closely to the register of **relatedness**. It makes possible a relational perspective on rights that can sit alongside a relational capability approach to children's wellbeing through adult account-ability and response-ability. It allows for an appreciation of public space as 'the urban commons … that should be available to all, highlighting also the relational nature of space itself … From this perspective, playing is a political act of making the city, producing something different, something better' (Russell, 2020, p. 18).

At this point, we offer a playful visual conceptual tool, the Lester Kaleidoscope, named after our late friend and colleague Stuart Lester. The double wheel allows for endless combinations of lenses, what Barad (2007) calls 'cuts', on adult advocacy and support for children's capability to play. The lenses comprise Amin's registers of repair, rights, relatedness and re-enchantment. Feeding into these lenses are key principles of a relational capability approach, spatial justice and play sufficiency, all activated through the 'DNA' helix of account-ability and response-ability. The visionary outcome would be more favourable conditions for children's play, evident in seeing more children playing, in more places, more of the time. Bringing all these ideas and the literature reviewed together, we suggest that bringing a relational capability approach to children's wellbeing requires paying attention to the spatial, temporal and affective conditions that support children's capability to play. The twin processes of account-ability and response-ability, together with Amin's four registers of repair, relatedness, rights and re-enchantment offer a framework for doing this that can embrace the interrelatedness of children, communities, the built environment, environmental sustainability, economies and more across multiple scales.

The Lester Kaleidoscope ™ © V1

- A Baradian Apparatus

An open source, conceptual tool for assessing and securing play sufficiency

Cultivating more favourable conditions for play

=

more children playing, in more places, more of the time

Relatedness

Rights

Re - enchantment

Repair and maintenance

four registers for a play friendly country (after Amin)

four registers for a play friendly country (after Amin)

The principle of play sufficiency

Response-ability

Spatial justice

A relational capability approach to well-being

Account-ability

Ongoing process of assessing and securing play sufficiency

Paying attention to children and their play

Collective wisdom about conditions that support play

Extend your scope by involving others with different knowledge, experiences and expertise!

Designed by Russell, Barclay, Tawil and Co. Produced by Play Wales. Always read the labels.

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Glossary

Note: we have tried here to describe briefly and in plain language the terms used in some of the sources included in this review. However, in doing so we risk reducing the complex and often contested meanings of these terms, for which we apologise.

Ableism/disablism	Ableism refers to the ways that practices, relationships and environments are structured around the fundamentally neoliberal assumption that individuals are 'ready and able to work and contribute' (Goodley, 2014, p. xi). Ableism allows for disablism, 'the oppressive practices of contemporary society that threaten to exclude, eradicate and neutralise those individuals, bodies, minds and community practices that fail to fit the capitalist imperative' (*ibid*.). Goodley argues that disability should not be studied in isolation from ability.
Account-ability and response-ability	Account-ability in this context refers to the ability of adults to take account of and to account for children's everyday lived experiences, the extent of their capabilities to play, and the diverse flows and forces that influence those capabilities (see chapter 4). Response-ability involves using this evidence to critically examine habits of thought, language and practice that make spaces more or less open to the possibilities for play to emerge (see chapter 5).
Agency	Agency is broadly understood as the ability to act, or to choose to act.
Amygdala	The amygdala is the name for a collection of nuclei, part of the limbic system of the brain that has a role in affective behaviours.
Anthropocene	The term anthropocene is the unofficial name given to the current epoch when human activity has had a significant impact on climate and ecosystems (Natural Geographic, 2022).
Anthropocentrism	Anthropocentrism means human-centred and refers to the pervasive belief that humans are at the centre of life.
Assemblage	The concept of the assemblage is drawn from the work of Deleuze and Guattari (1998) and refers to *ad hoc* groupings of diverse phenomena that can include people and their relationships, histories, material and symbolic artefacts, technologies, desires, and so on. Assemblages are not fixed entities but are more akin to 'events'; they and the phenomena that combine to co-create them have properties of emergence, opportunism, multiplicity and indeterminacy, meaning that they are open and responsive to what happens along the way.
Autotelic	An autotelic activity is one that is carried out for its own sake rather than for external reward or to avoid punishment.
Binaries and dualisms	The terms binary and dualism refer to phenomena that are assumed to be opposites and that exist only in relation to that opposite, such as child/adult, male/female, nature/culture, play/not play. They have been criticised for fixing categories as separate and opposite, obscuring the potential for considering more fluid, nuanced and relational perspectives.

Brain plasticity	Brain plasticity refers to the ability of the brain to change its structure in response to experience, drugs, hormones or injury.
Capability approach	The capability approach is a social justice approach to wellbeing, based on work by Amartya Sen and Martha Nussbaum. It considers the capabilities for people to live lives they value, including opportunities/resources to do and be well and whether people can make the most of such opportunities.
Cerebral cortex	The cerebral cortex is the outermost layer of the brain that is associated with higher mental capabilities and processes (for example, decision-making), with lobes having specialised areas including sensory processing, language and voluntary movement. The sub-cortex is the older (in evolutionary terms) area of the brain associated with more immediate responses to environmental stimuli.
Cisheteronormativity	Cisheteronormativity refers to the powerful macro-structural process that both assumes and requires alignment between anatomy at birth, gender and a heterosexual orientation.
Cognition	Cognition is the act or process of knowing; in psychology it refers to the processes of thought.
Communitas	Communitas is a term coined by Victor Turner who described it as communal bonding, a sense of solidarity that comes from shared cultural rituals.
Critical period	The term critical period refers to a period in development where the brain and nervous system are particularly sensitive to environmental stimuli; often referred to as a sensitive period.
Developmentalism	Developmentalism refers to the dominance of an over-simplified application of theories of ages and stages of child development, particularly cognitive development, that has become fixed and normative.
Disablism	See ableism/disablism.
Emotion regulation	Emotion regulation refers to a broad range of processes and strategies to respond effectively to emotional experiences.
Entanglements	Entanglements is a term used by Barad (2007) to describe the idea that life is not an individual matter but continually emerges through encounters, always entangled with other phenomena.
Epigenetic inheritance	Epigenetic inheritance is a form of inheritance where acquired behaviour patterns can be passed on to future generations through epigenetic markers.
Epistemology	Epistemology is the name for the study of knowledge.
Essentialism	Essentialism refers to the belief that the essence of something, particularly group characteristics and traits, is biologically determined, fixed and unchanging.
Genes	Genes are the smallest hereditary unit. A gene is a section of DNA that encodes a protein, and proteins in turn contribute to the shaping of many aspects of an organism.

Hegemony	Hegemony refers to the control or dominating influence by one person or group over others or to the process of domination in which one set of ideas subverts or co-opts another.
Limbic system	The limbic system is a complex set of structures and neural networks that support emotions, homeostasis, memory, motivations, unconscious drives, and olfaction.
Linear causality	Linear causality refers to the belief that one thing/process/event directly, exclusively and consistently causes a particular outcome.
Majority world	See minority world.
Material discursive practices	'"Material-discursive" is a term … from the work of Karen Barad (2007) and refers to the dynamic and ongoing entanglements of meanings, language, practices, matter and so on, in ways that produce "common-sense" understandings and practices. Ideas and language do not exist separately from everyday practices and relations; thus, dominant narratives have powerful effects on the way we live our lives and relate to each other' (Lester, 2020, p. 39).
Metacommunication	Metacommunication refers to ways of communicating other than direct speech, including body language, tone or pitch of voice, facial expressions. In play, children use metacommunication to communicate the message 'this is play' (Bateson, 1955).
Minority world	The term minority world refers to what is more commonly called developed or Western countries, or more recently, the Global North. Its converse, the majority world, is so called because the majority of the world's population inhabit those countries that are often termed developing. Although the terms majority and minority world risk oversimplification, they do seek to 'shift the balance of our world views that frequently privilege "western" and "northern" populations and issues' (Punch and Tisdall, 2012, p. 241).
Modernism	Modernism refers to the kinds of thinking predominant during the project in Europe and the American colonies of the seventeenth and eighteenth centuries that were based on the idea that empirical scientific reasoning could bring to light objectively existing and universal truths about the world (previously explained through superstition, religion or philosophy) and how humans could therefore control events (see postmodernism).
Neoliberalism	Neoliberalism refers to political and economic ideologies and practices that see human wellbeing as arising from 'individual entrepreneurial freedoms' (Harvey, 2007, p. 2) and the accumulation of wealth. It has emerged from policies in the 1970s onwards that have seen a withdrawal of the state from a traditional social welfare role, the increasing incursion of the markets and associated managerial ideologies into public services and the deregulation of finance and other systems seen as restricting market forces.
Neurodivergent	Neurodivergent means not neurotypical: differing in some way from what is considered 'normal' neurological and/or cognitive functioning. The term is often used to describe autistic people or those with ADHD, dyspraxia and similar labels.

Neurogenesis	Neurogenesis refers to the creation of neurons.
Neuron	A neuron is a nerve cell that transmits nerve impulses.
Neurotransmitter	Neurotransmitters are chemicals that are secreted to carry signals from a neuron to a target cell (in the nervous system, muscles or glands).
New materialisms	New materialisms refers to a collection of relational and ontological philosophical perspectives that pay attention to matter and the liveliness of objects, seeking to dissolve binaries such as nature/culture and body/mind.
Non-representational theory	Non-representational theory is a term coined by geographer Nigel Thrift (2008) to refer to efforts to move beyond representational perspectives (that assume a stable fixed reality that can be represented truthfully in language) towards looking at relationality, movement, the rhythms and flows of everyday life, difference and continual change.
Ontogeny	Ontogeny refers to the development of individual humans (see phylogeny).
Ontology	Ontology is the study and/or nature of being and existence.
Paradigm	A paradigm is the belief and/or value system that underpins the way people make sense of the world.
Performativity	Performativity refers to 'the power of language to effect change in the world: language does not simply describe the world but may instead (or also) function as a form of social action' (Cavanaugh, 2018).
Phenomenon	A phenomenon is something that can be perceived or experienced by the senses; often used to refer to seemingly inexplicable phenomena, in the sciences this meaning is not necessarily implied.
Phylogeny	Phylogeny refers to the evolution of species (see ontogeny).
Posthumanism	Posthumanism is a philosophical perspective that challenges humanism for its assumptions about humans' autonomy, intentionality and exceptionality, seeing agency as distributed and humans as dynamically entangled with other phenomena.
Postmodernism	Postmodernism refers to a broad collection of diverse ways of thinking that challenge the certainties, fixities and grand narratives of modernist thinking and the Enlightenment, seeing 'reality' as fragmented, unstable and multiple.
Queer theory	Queer theory refers to a range of perspectives on gender and sexuality that seek to move beyond the essentialism of identity politics and to consider gender fluidity and plurality and critique heteronormativity. The concept is also used more broadly to refer to approaches that seek to 'queer' or disrupt historical and taken-for-granted power relations.
Relational capability approach	A relational capability approach to children's play accounts for the entanglements of the personal, social and environmental conditions that affect the extent to which children can convert opportunities for play into actually playing, and all that offers for both moments of being well and more long-term wellbeing.

Relational ontologies	Relational ontologies is a term to describe a group of philosophical perspectives that see the nature of being as emerging through relations with other phenomena rather than individual or substantive. 'Entities are what they are because of their relations with other entities' (Spyrou, 2022).
Response-ability	See account-ability and response-ability.
Reward system in the brain	Reward system is a commonly used but contested term for the subcortical positive affect networks that include sensory and motor networks.
Social construction of childhood	The social construction of childhood refers to the belief that ideas about childhood and children are constructed by society rather than being biologically natural.
Spatial justice	'Spatial justice as such is not a substitute or alternative to social, economic, or other forms of justice but rather a way of looking at justice from a critical spatial perspective' (Soja, 2010, p. 60).
Stratification	Stratification is a term used in sociology to describe the social standing of people by categories, for example, race, class, gender, dis/ability, sexuality and more.
Sub-cortex	See cerebral cortex.
Synaptic pruning	Synaptic pruning is the adaptive loss of unused synapses that helps with efficiency and speed of neural processes.
Synaptogenesis	Synaptogenesis is the formation of the connections between neurons that is integral to the architecture of networks and connectivity.

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Play Wales is the national organisation for children's play, an independent charity supported by the Welsh Government to uphold children's right to play and to provide advice and guidance on play-related matters.