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

Summary

Acknowledgements

We would like to extend our gratitude to Play Wales for commissioning this research and to the Welsh Government for providing funding. We would also like to thank the many people, too many to list here, who have responded to requests for information through email or through social media and/or who have shared work that has been pertinent. Using academic search engines to find literature does not always offer up all that is out there, so we have also drawn on the experience, expertise and knowledge of many people whose work would not have otherwise been included.

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Mike Barclay and **Ben Tawil** work together as Ludicology, providing consultancy, research and training on children's play. Since the commencement of the Play Sufficiency Duty, Ben and Mike have been researching and developing approaches to 'doing' play sufficiency at neighbourhood, local authority and national levels, both in England and Wales. Ben and Mike are also mentors for the OPAL programme, working to improve play times in primary schools. Prior to Ludicology, Ben worked in management positions at two adventure playgrounds, as a national play development officer for Play Wales, and lectured in childhood, play and playwork programmes in both Higher and Further Education. Mike was the play sufficiency lead for Wrexham County Borough Council for over 10 years and has a background in open access play provision and out of school childcare. He is also a qualified playworker, design engineer and adult trainer. Ben and Mike regularly present at national and international conferences, they have produced multiple guidance documents on the topics of playwork, play sufficiency and risk management, and their work is published in peer reviewed journals and edited books.

ISBN: 978-1-914361-16-6

Published by Play Wales, Park House, Greyfriars Road, Cardiff, CF10 3AF.

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Note: this summary is a very slightly adapted version of the first chapter of the full literature review, which will be available at www.play.wales

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.

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 United Kingdom, 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

[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).

matters, we have 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.[2] 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.

[2] Montuori, 2005; Toracco, 2016

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.'[3]

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[4] and theory books on play.[5]

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'.[6] 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

[3] Tharps, 2014

[4] For example, Brooker *et al*., 2014; Johnson *et al.*, 2015; Pellegrini, 2011; Smith and Roopnarine, 2019

[5] A few examples include Cohen, 2019; Henricks, 2015a; Lester, 2020; Sicart, 2014; Smith, 2010; Sutton-Smith, 2017

[6] Lester and Russell, 2008, p. 14

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.[7]

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).[8] Relationality decentres 'the child'[9] 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.[10]

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.

1.2.3 Policy changes

At international policy level, the intervening 15 years have 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.

[7] Prout, 2005

[8] Änggård, 2016; Lester, 2020; Mereweather, 2020; Murris, 2019; Prout, 2007; Rautio, 2013a, 2013b; Spyrou, 2017; Taylor and Pacini-Ketchabaw, 2015

[9] Prout, 2007; Spyrou, 2017; Taylor and Pacini-Ketchabaw, 2015

[10] Lester, 2020; Mereweather, 2020; Murris, 2019; Rautio, 2013a, 2013b

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.[11]

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.

1.2.4 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[12] with an estimated 335,000 'excess deaths' (that is, more than would normally be expected) between 2012 and 2019 being attributable to austerity measures.[13] Specifically for children's play, austerity measures saw unprecedented public spending cuts and the loss of many play and playwork services and infrastructure.[14]

The Brexit referendum in 2016 and the UK's subsequent departure from the European Union has added to political and economic uncertainties,[15] being projected to make the UK poorer in the long term.[16] The European Union (EU) Withdrawal Agreement Act 2020 has implications on human rights generally, implicating children's rights.[17] 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.[18]

[11] Jones *et al.*, 2020; Welsh Government, 2015

[12] Marmot *et al.*, 2020

[13] Walsh *et al.*, 2022

[14] Brown and Wragg, 2018; Children's Rights Alliance England, 2015; Gill, 2015b; McKendrick *et al.*, 2015; Voce, 2015b, 2021

[15] Dhingra *et al.*, 2022; Welsh Government, 2021f

[16] Dhingra *et al.*, 2022

[17] British Academy, 2020; Children's Commissioners of the United Kingdom of Great Britain and Northern Ireland, 2020

[18] 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.[19] 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.[20] The impact of this crisis on children adds to the educational and health challenges already faced during the pandemic.[21]

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, 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.[22]

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.[23]

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.[24] Overall, however, children's advocates were concerned about the effects of reduced opportunities for playing, particularly with friends.[25]

[19] The Lancet editorial, 2022

[20] The Food Foundation, 2022

[21] The Lancet editorial, 2022

[22] Welsh Government, 2022

[23] Casey and McKendrick, 2022; Children's Commissioner for England, 2020; Cowie and Myers, 2020; Holt and Murray, 2021; Kallio *et al*., 2020; Mukherjee, 2021

[24] Casey and McKendrick, 2022; Cowan *et al*., 2021; Kourti *et al*., 2021; Mukherjee, 2021; Russell and Stenning, 2022

[25] 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,[26] most studies conclude that children were less physically active, particularly outdoors.[27] Others report that disparities in obesity rates between children of different ethnic backgrounds and socio-economic status further increased during the pandemic.[28]

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.[29] 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.[30] Many local authorities made changes to road layouts to make them safer for pedestrians and this was encouraged by the UK government.[31] 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.[32] One international study recommends embedding opportunities for play in policies relating to preparedness for future pandemics and similar crises.[33]

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

[26] Alma Economics, 2021

[27] Kourti *et al*., 2021

[28] Jenssen *et al*., 2021

[29] Casey and McKendrick, 2022

[30] Stenning and Russell, 2020

[31] Russell and Stenning, 2021

[32] Ferguson *et al*., 2021; Stenning and Russell, 2020; Summer of Play Campaign, 2021; Play First UK, 2020

[33] Andres *et al*., 2023

assemblages.[34] 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.[35] 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,[36] is addictive,[37] dangerous, or harmful in other ways.[38] 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 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[39] 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.[40]

[34] 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.

[35] Rautio, 2014; Sutton-Smith, 2017; Woodyer *et al.*, 2016

[36] Bryan, 2019, 2020, 2021; Göncü and Vadeboncoeur, 2015; Grieshaber and McArdle, 2010; Kinard *et al.*, 2021; McDonnell, 2019; Trammell, 2020, 2023

[37] Sicart, 2014

[38] Sutton-Smith, 2017

[39] '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 (Barad, 2007).

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',[41] 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'.[42] This has emerged alongside broader philosophical, political and theoretical moves away from modernist forms of thinking (that sought clarity, truths and 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.[43] 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.[44] Doing so foregrounds movement, the rhythms and flows of everyday life, difference and continual change. Relationality decentres 'the child'[45] and brings into focus the liveliness of material objects, attending to how human and material forms mutually shape and are shaped by each other.[46]

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.[47]

[40] Abebe, 2019; Aitken, 2018; 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

[41] Hammersley, 2016; Holmberg, 2018; James, Jenks and Prout, 1998; James and Prout, 1997, Prout, 2011

[42] Holmberg, 2018; Kraftl and Horton, 2019; Kraftl *et al*., 2019; Ryan, 2011

[43] Prout, 2011

[44] 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

[45] Prout, 2007; Spyrou, 2017; Taylor and Pacini-Ketchabaw, 2015

[46] Lester, 2020; Mereweather, 2020; Murris, 2018; Rautio, 2013a, 2013b

[47] 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,[48] 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,[49] although, as with other sites of subordination and power, single categories can sometimes be useful politically.[50] 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.[51] 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. The 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[52]
- increasing use of digital devices and online activities, including screen time, concerns about addiction and online safety[53]

[48] Cho *et al*., 2013; Konstantoni *et al*., 2014; Konstantoni and Emejulu, 2017

[49] Dahlbeck, 2012; Kraftl, 2020a

[50] Alanen, 2016; James, 2010

[51] Wall, 2022a, 2022b

[52] Bessell, 2017; Giles *et al*., 2019; Barclay and Tawil, 2021; Shaw *et al*., 2015; UNICEF, 2022

[53] 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[54]
- 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[55]
- youth crime and youth violence.[56]

Much of the research shows significant classed, racialised, gendered and dis/ablised disparities in how these concerns are experienced by children and families,[57] 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.[58]

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);[59] such approaches can often further entrench inequalities.[60] Even though the Welsh Government explicitly brings a rights-based approach to policies relating to children,[61] the social investment narrative is still evident.[62]

In addition, since the 1980s, neoliberal[63] 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.[64]

[54] 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

[55] 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

[56] 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

[57] 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

[58] Asenova, 2015; Edwards *et al*., 2015; Edwards and Gillies, 2020; Edwards *et al*., 2022; Gillies *et al*., 2017; Lambert, 2019; Richardson *et al*., 2014; Ryan, 2021

[59] Archer and Albin-Clark, 2022; Bonoli *et al*., 2017; Burman, 2019; Read, 2011; Ryan, 2020; Vignoles and Thomson, 2019; Read, 2011; Ryan, 2020; Vignoles and Thomson, 2019

[60] Edwards *et al*., 2022; Katz, 2019

[61] Butler and Drakeford, 2013; Sullivan and Jones, 2013

[62] Knibbs *et al*., 2013; Wales Centre for Public Policy, 2020; also evident in the Well-being of Future Generations Act 2015

[63] 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.

[64] 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[65] and that of their children.[66] Such responsibilisation can also, albeit inadvertently, produce notions of blame, particularly of poor mothers (in all senses of the word).[67]

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.[68] 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 New 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,[69] 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.[70] It also allows for a shift from a 'damage'[71] 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,[72] 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.[73] 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 more.[74] 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.[75]

[65] Juhila *et al*., 2017

[66] Edwards and Gillies, 2020; Edwards *et al*., 2022; Katz, 2019

[67] Asenova, 2015; Edwards *et al*., 2015, 2020; Gillies *et al*., 2017; Richardson *et al*., 2014; Ryan, 2021; Lambert, 2019

[68] Lester and Russell, 2013a

[69] Lester and Russell, 2013a, 2014a; Russell *et al*., 2019, 2020

[70] Lester, 2020; Pyyry and Tani, 2019; Soja, 2010

[71] Russell and Stenning, 2022; Tuck, 2009, 2010

[72] Ministerial Review of Play Steering Group, 2023

[73] Future Generations Commissioner, 2017; Jones *et al*., 2020

[74] Jones *et al*., 2020; Lester, 2020

[75] 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.[76] 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.[77] 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.[78] There are also critiques of both the concept[79] 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.[80]

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,[81] thereby rendering individuals responsible for their own wellbeing.[82] 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.[83] 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.[84] Such a 'damage' focus locates problems within individuals, requiring professional interventions to fix those 'damaged', thereby obscuring structural forces of power and injustice.[85] 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.[86]

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)[87] and that wellbeing is therefore fundamentally spatial and relational.[88]

[76] Raghavan and Alexandrova, 2015

[77] Atkinson, 2013; Lester, 2020

[78] 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

[79] Andrews and Duff, 2020; Atkinson, 2021; Fattore *et al*., 2021; Laruffa, 2018; Walby, 2012

[80] Atkinson, 2013; Bourdillon, 2014; Camfield *et al*., 2010; Fattore *et al*., 2021

[81] Atkinson, 2013; Coffey, 2020; Fattore *et al*., 2021; Lester, 2020

[82] White, 2017

[83] Atkinson, 2013, 2021; Bradshaw, 2019; Camfield *et al*., 2010; Coffey, 2020; Fattore, 2020

[84] Adams, 2013; Kvist Lindholm and Wickström, 2020

[85] Tuck, 2009; Russell and Stenning, 2022

[86] Kvist Lindholm and Wickström, 2020

[87] Fattore, 2020; Lester, 2020

[88] 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 (CA), with examples drawing on the works of philosopher-economist Amartya Sen and philosopher Martha Nussbaum.[89] 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.[90] 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.[91] 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.[92]

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).

She describes the play capability as 'being able to laugh, to play, to enjoy recreational activities'.[93] 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, and the approach therefore offers much for considering spatial justice[94] 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.

[89] Biggeri *et al*., 2011; Camfield and Tafere, 2011; Domínguez-Serrano *et al*., 2019; Kellock and Lawthom, 2011; Schweiger, 2016

[90] Owens *et al*., 2021

[91] 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

[92] Robeyns, 2017

[93] Nussbaum, 2007

[94] Schweiger, 2016

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.[95] 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.[96]

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.

[95] Fattore and Mason, 2017; Walby, 2012

[96] Owens *et al*., 2021

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 and the social investment model of policy described in chapter 2.[97] 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,[98] 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[99] and through appreciating playing as emergent and shifting in its identity.[100] In addition, the literature shows the bi-directionality of playing and its instrumental outcomes such as health and development.[101] 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.[102] 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.[103]

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.[104] 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.[105]

[97] Nielsen, 2018

[98] Laruffa, 2018

[99] Lopez Frías, 2020

[100] Rautio and Winston, 2015

[101] Lillard *et al*., 2013; Lockman and Tamis-LeMonda 2021; Solis *et al*., 2017

[102] Lester, 2020; Russell, 2015

[103] Lester, 2020

[104] Buchanan and Johnson, 2009; Cook, 2016, 2019; Doak, 2020; Göncü and Vadenboncoeur, 2015; Goodley and Runswick-Cole, 2010; Mayeza, 2018; Smith, 2017

[105] 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.[106] 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[107] and between nature and culture.[108] Such binaries obscure the detailed ways that children enact, reproduce and resist gender stereotypical and heteronormative roles in their play.[109] 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[110] or which can over time position Black children as problems within schools.[111]

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.[112] '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.[113] What these broader perspectives imply is that the classic nature/nurture dualism is dissolved, and that a systems approach to development[114] 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,[115] meaning that no

[106] Leadbitter *et al*., 2021

[107] 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

[108] Blaise and Taylor, 2012; Josephidou and Bolshaw, 2020; Osgood, 2014; Prioletta, 2020

[109] Blaise and Taylor, 2012; Renold and Mellor, 2013

[110] Dumas and Nelson, 2016; Pinckney *et al*., 2019

[111] Bryan, 2020; Kinard *et al*., 2021; Meek and Evandra, 2020

[112] Gray, 2019; LaFreniere, 2011, 2013; Sgro and Mychasiuk, 2020; Sharpe, 2019

[113] Bateson, 2015, 2017; Bateson and Martin, 2013; Jablonka and Lamb, 2007, 2014; Panksepp, 2008

[114] Fagen, 2011; Bergen *et al*., 2016; Fromberg, 2015; Oyama, 2016

[115] Burghardt, 2015; Burghardt and Pellis, 2019; Smaldino *et al*., 2019

one theory is sufficient to account for play's and players' diversity.[116] 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.[117] 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.[118]

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.[119] 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.[120] 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.[121] In addition, much of the neuroscientific research into play has been on animals and on rough and tumble play.[122] 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,[123] 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.[124] Computer metaphors abound, for example, wiring (including hard wiring), neural circuits, programming, coding and algorithms,[125] with minds as the software.[126] 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.[127] Other critics argue that life (consciousness, subjectivity, behaviour, movement, emotions) cannot be reduced to electrochemical neural communication.[128] Alternative models suggest more relational perspectives and include

[116] Burghardt and Pellis, 2019; Sutton-Smith, 2017

[117] Bateson, 2015; Burghardt and Pellis, 2019; Pellegrini *et al*., 2007

[118] 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

[119] Altikulaç *et al*., 2019; Borsboom *et al*., 2019; Münch *et al*., 2021; Rose, 2012; Signorelli *et al*., 2021

[120] Altikulaç *et al*., 2019; Borsboom *et al*., 2019; Rose, 2012; Tallis, 2016

[121] Dufford *et al*., 2022; Dumit, 2012; Glover, 2011

[122] Kellman and Radwan, 2022; Sgro and Mychasiuk, 2020

[123] Corris and Chemero, 2022

[124] Bergen *et al*, 2016; Corris and Chemero, 2022; Estrin and Bhavnani, 2020; Koziol *et al*., 2012; Signorelli and Meling, 2021; Steffen *et al*., 2022

[125] Burke *et al*., 2020; Krakauer *et al*., 2017; Redish *et al*., 2019; Rose, 2012; Signorelli and Meling, 2021

[126] Protevi, 2012

[127] Panksepp, 2010, 2012, 2016; Panksepp *et al*., 2019

[128] Signorelli and Meling, 2021

network models,[129] biological modelling based on life processes,[130] and dynamical systems theory and embodied cognition, which sees the brain as one player in brain-body-environment systems.[131]

In summary, neuroscientific research into play suggests that play is a 'bottom-up' neural process or system.[132] 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[133] areas and processes, supporting adaptation to complex physical, social and cultural environments.[134] 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[135] and against stress,[136] 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.[137] For these reasons, a neuroscientific argument has been made that adults should create conditions for children to play.[138]

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.

1.5.3 Playing with movement and the senses

There is surprisingly little attention paid to movement within play research[139] other than its role in physical activity and obesity reduction. Here, benefits can include:

- muscular strength, aerobic fitness[140]
- increased agility, range of motion, flexibility, co-ordination and balance, and decreased fatigue, stress and depression[141]
- 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.[142]

[129] Borsboom *et al*., 2019

[130] Signorelli and Meling, 2021

[131] Corris and Chemero, 2022

[132] Panksepp 2010, 2012, 2016; Panksepp *et al*., 2019; Pellis *et al*., 2019

[133] 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.

[134] Kellman and Radwan, 2022; Panksepp, 2016; Siviy, 2016

[135] Panksepp, 2008, 2010, 2015; Sgro and Mychasiuk, 2020

[136] Burgdorf *et al*., 2017; Sharpe, 2019

[137] Panksepp, 2007, 2008, 2017; Siviy and Panksepp, 2011

[138] Panksepp, 2015

[139] Eberle, 2014; Pellegrini, 2011

[140] Martins *et al*., 2015

[141] Yogman *et al*., 2018

[142] Janssen and LeBlanc, 2010

In addition, movement helps increase blood flow and oxygen intake, and activates the lymphatic system, protecting against illnesses and allergies.[143] Other benefits can include:

- protection from conditions such as cardiovascular disease, diabetes, cancer, osteoporosis, hypertension, depression and obesity[144]
- improved mental health[145]
- improved self-esteem and cognitive functioning,[146]

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.[147] 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.[148]

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.[149] 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.[150] It is almost a truism to say that through play children *make sense* of their world and of themselves, their capacities and potential.[151] 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,[152] 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.[153] Equally, sensory integration[154] as a process influences the development of play,[155] with children's sensory processing preferences affecting their play preferences, although not in uniform ways.[156] Neurodivergent children are more likely to have sensory processing differences from neurotypical children (often described as problems),[157] and may play in ways that may be perceived as disruptive, attracting censure in some contexts.[158]

[143] Hanscom, 2016

[144] Block *et al*., 2017; Boddy *et al*., 2014; de Rossi, 2020

[145] Ahn *et al*., 2011

[146] Biddle *et al*., 2019

[147] de Rossi, 2020

[148] Alexander *et al*., 2014, 2019

[149] Eberle, 2014; Lester, 2020

[150] Corris and Chemero, 2022; Sheets-Johnstone, 2018

[151] Atmakur-Javdekar, 2016; Brown *et al*., 2019; Hakkarainen and Bredikyte, 2008; Henricks, 2014, 2015

[152] Olson, 2022

[153] Bundy *et al*., 2007; Fearn, 2014; Prendiville and Fearn, 2017; Hanscom, 2016; Roberts *et al*., 2018

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

[155] Watts *et al*., 2014

[156] Binder, 2021; Bundy *et al*., 2007; Mische Lawson and Dunn, 2008; Roberts *et al*., 2018; Watts *et al*., 2014

[157] Dellapiazza *et al*., 2021; Jorquera-Cabrera *et al*., 2017; Pfeiffer *et al*., 2014

[158] 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.[159] Kinaesthesia and touch are the earliest sensory systems to develop, developing prenatally.[160] Many forms of play involve touch between human bodies, for example, rough and tumble play, tickling, games of tag[161] and pretend play.[162] 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.[163] 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,[164] which in turn are all connected to movement.[165]

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.[166] Such forms of play are affected by and affect the vestibular system,[167] 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.[168] Moreover, stimulation of the vestibular system, as with touch, engenders positive affect,[169] evident in the squeals and screams of children engaging in such disequilibrial forms of play.[170]

1.5.4 Playing with affect/emotion

Rational thought and action are not possible without the sensory information from movement, feelings and emotions.[171] 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'.[172]

Affect, emotions and feelings are terms that are often used interchangeably and sometimes distinguished and defined in different ways across disciplines.[173] 'Affect' is sometimes used as an umbrella term for emotions and feelings.[174] A more relational understanding sees affect as emerging from encounters rather than something

[159] 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).

[160] Fearn and Troccoli, 2017; Hanscom, 2016; Jackson and McGlone, 2020; Sheets-Johnstone, 2020

[161] Jackson and McGlone, 2020; Panksepp, 2010

[162] Roberts *et al*., 2018

[163] Jackson and McGlone, 2020; Panksepp, 2010

[164] Hanscom, 2016

[165] Bundy *et al*., 2008; Gibson *et al*., 2017; Prendiville and Fearn, 2017

[166] Fagen, 2011; Goddard Blythe, 2017; Hanscom, 2016

[167] 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.

[168] Brodie, 2021; Hanscom, 2016; van Hecke *et al*., 2021

[169] Miller *et al*., 2017; Rajagopalan *et al*., 2017

[170] Eberle, 2014; Work-Slivka, 2017

[171] Damasio, 2018, 2021; Marks-Tarlow, 2010; Panksepp, 2010

[172] LaFreniere, 2013, p. 192

[173] Burghardt, 2019; Damasio, 2018; Russ, 2014; Stanley, 2017; Tembo, 2021b

[174] Burghardt, 2019; Damasio, 2018; Russ, 2014

inside individuals, and includes the reciprocal ability both to affect and be affected by the world.[175] All three – affect, feelings and emotions – aim for homeostasis, 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. However, homeostasis is more than merely being steady and stable, it is a dynamic process of seeking opportunities to flourish.[176]

It is often asserted that play generates positive affect, or that positive affect is a key characteristic of play,[177] although there are also critiques of adults' unproblematic association between play and joy.[178] Children themselves often associate playing with positive emotions.[179] 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.[180]

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;[181] can broaden social interactions and build more lasting bonds and attachments;[182] and can motivate further playing.[183]
- 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.[184]
- Play both requires emotion regulation[185] and affords a relatively safe frame for experiencing and practising the regulation of emotions,[186] with variations across gender and children with high or low impulsivity and/or anxiety.[187]
- 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,[188] as long as the surprise falls within acceptable limits of being neither too predictable nor too chaotic.[189]

[175] Harker, 2005; Johansson and Hultgren, 2016; Lester, 2020; Leyshon, 2016; McPhail and Huynh, 2016; Stanley, 2017

[176] Billman, 2020; Damasio, 2018; Nirmalan and Nirmalan, 2020; Rose, 2012

[177] 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

[178] Cook, 2019

[179] Brockman *et al*., 2011; Goodhall and Atkinson, 2019; Howard *et al*., 2017; Moore and Lynch, 2018

[180] Lester, 2020; Sutton-Smith, 2017

[181] Burgdorf *et al*., 2017; Panksepp, 2008, 2010; Trezza *et al*., 2019

[182] Tugade *et al*., 2021

[183] Lester and Russell, 2010; Sutton-Smith, 2017

[184] Panksepp, 2008; Sutton-Smith, 2017

[185] 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.

[186] 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

[187] Rao and Gibson, 2019

[188] 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

[189] Andersen *et al*., 2022

- Children also deliberately seek out fear and risk in their play, again within manageable extremes.[190] Such forms of playing can engender feelings of exhilaration, bringing benefits of positive affect;[191] and can prime neurological systems to cope with uncertainty and novelty.[192]

1.5.5 The therapeutic role of play

It is well documented that long-term toxic stress[193] can be harmful for children.[194] 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.[195]

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).[196]

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.[197] Examples of this were seen during the COVID-19 pandemic, including some children incorporating the virus into their play narratives.[198] 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.[199]

[190] Dodd and Lester, 2021; Sandseter, 2009, 2010

[191] Hinchion *et al*., 2021; Hyndman and Telford, 2015; Lester and Russell, 2014b; Sando *et al*., 2021; Sandseter, 2009, 2010

[192] Gray, 2020; Lester and Russell, 2014b; Sandseter, 2010; Sandseter and Kennair, 2011

[193] 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).

[194] Foley, 2017; Garner *et al*., 2021

[195] Bateman *et al*., 2013; Clark, 2018

[196] Drewes and Schaeffer, 2014

[197] Clark, 2018; McKinty and Hazleton, 2022

[198] Casey and McKendrick, 2022; Cowan *et al*., 2021; Graber *et al*., 2021; Kourti, 2021; Mukherjee, 2021; Russell and Stenning, 2021, 2022

[199] 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.[200] Early infant attachment to caregivers is strongly linked to wellbeing through infancy, childhood, adolescence and later in life.[201] 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.[202] 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.[203] A relational approach acknowledges attachment as a system that is contingent upon effective caregiver systems and broader socio-political contexts.[204]

For older children, although attachment to caregivers remains important, friendships offer different experiences, particularly through playing.[205] As typically developing children grow, they build more enduring friendships with peers.[206] Play is one of the social exchanges that both defines friendships[207] and provides the context for friendships to be formed and maintained.[208] 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.[209] 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.[210] In the choreography for group acceptance or status, children use direct competition, aggression, teasing, excluding, bullying and gossiping in gendered ways.[211] 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 out differently across social differences in complex ways.[212]

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.[213] Although research into these play forms often foregrounds children's ingenuity, nonsense and more taboo forms of playing,[214] there are also clear links to children's wellbeing.[215] Participation in play cultures

[200] Masten, 2014

[201] Gorrese, 2016; Gorrese and Ruggieri, 2012; Jackson and McGlone, 2020; Masten, 2014; McGinley and Evans, 2020; Panksepp, 2010

[202] Bergen *et al*., 2016; Gordon, 2015; Jackson and McGlone, 2020

[203] Gordon, 2015

[204] Carlyle *et al*., 2020; Duschinsky *et al*., 2015

[205] Balluerka *et al*., 2016; Gorrese, 2016; McGinley and Evans, 2020

[206] Fattore and Mason, 2017; Holder and Coleman, 2015

[207] Bagwell and Schmidt, 2013; Brogaard-Clausen and Robson, 2019

[208] Beazidou and Botsoglou, 2016; Carter and Nutbrown, 2016

[209] Brogaard-Clausen and Robson, 2019; Fattore and Mason, 2017; Holder and Coleman, 2015

[210] Del Giudice, 2015

[211] LaFreniere, 2011; Madrid, 2013

[212] McDonnell, 2019; Trammell, 2020, 2023

[213] Breathnach *et al*., 2018; Corsaro, 2020; Johanson, 2010; Marsh and Bishop, 2013; Potter and Cowan, 2020; Karoff and Jessen, 2008

[214] Koch, 2018; Lester, 2020; Marsh and Bishop, 2013; Rosen, 2015a, 2015b; Sutton-Smith, 2017

[215] Corsaro, 2020; Marsh and Bishop, 2013

is a form of communal sharing,[216] which brings an emotional buzz through a sense of belonging.[217] 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.[218] 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.[219]

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,[220] although children's attraction to animals is not universal.[221] 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.[222] 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.[223]

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,[224] there are some studies on block or construction play,[225] a small body of work considering the role of therapeutic toys in play therapy[226] and a growing literature on the benefits of playing with loose parts.[227, 228] 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.

[216] Corsaro, 2020

[217] Marsh and Bishop, 2013

[218] Corsaro, 2020

[219] Corsaro, 2020; Koch, 2018

[220] Moore and Lynch, 2018; Tipper, 2011

[221] Irvine and Cilia, 2017; Tipper, 2011

[222] Tipper, 2011

[223] Rautio, 2013b

[224] 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

[225] Gold *et al*., 2021; Ness and Farenga, 2016; Tian *et al*., 2020

[226] Kottman, 2011; Parker *et al*., 2021; Ray *et al*., 2013

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

[228] 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

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[229] and of the real and imaginary[230] 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.[231] Such studies consider the liveliness of material objects and their part in how playing unfolds.[232] 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*'.[233] 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.[234] 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.[235]

Children's consumption of commercial toys (both digital and non-digital) is deeply embedded in their social lives and friendships and therefore wellbeing.[236] Possessing certain consumer items allows children, particularly those from poorer backgrounds and disrupted family lives, to belong and to be heard amongst peers.[237] Toys can also be sites of cultural and social participation,[238] 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.[239]

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,[240] engagement in more complex play forms,[241] more creativity, engagement and enjoyment of playtimes,[242] and more diverse groups of children playing together.[243]

[229] Woodyer, 2008

[230] Wohlwend, 2020

[231] Rautio and Winston, 2015

[232] Thiel, 2015

[233] Levinovitz, 2017, p. 271

[234] Parker *et al*., 2021

[235] Lee and Hood, 2021

[236] Buckingham, 2011; Mertala *et al*., 2016; Wilson, 2016

[237] Wilson, 2016

[238] Wohlwend, 2020

[239] Carter and Nutbrown, 2016

[240] 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

[241] Bundy, 2009; Luchs and Fikus, 2013; Lester *et al*., 2011; Verberne *et al*., 2014

[242] Bundy *et al*., 2008; James, 2012; Lester *et al*., 2011; McLachlan, 2014; Sterman *et al*., 2020

[243] 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.[244] 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.[245] Children's play is inherently spatial: all play *takes place* somewhere.[246] This is more than a material and social emplacement, it is an ongoing relational and emergent process experienced through the senses, movement and imagination.[247]

Playing out and being well

When children can play out, they build an intimate knowledge of neighbourhoods.[248] 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.[249] In this way, children develop a *sense* of place, an affective and embodied connection and place attachment.[250] Place attachments offer a sense of security and belonging, social affiliation and opportunities for creative expression and exploration.[251] 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)[252] 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.[253] Playing out and having special places, to which children often give their own names,[254] fosters a sense of belonging and self-efficacy, protecting and enhancing wellbeing.[255]

Children build attachments to special places of refuge from the demands of everyday life.[256] These are places to which children return repeatedly, and which may have particular value for marginalised or at-risk children and youth.[257] Refuge is not something that is taken from a static and unchanging space, but is embedded in ongoing relations and practices.[258]

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.[259]

[244] Holloway *et al*., 2019; Lester, 2020; Malone, 2015; Soreaunu and Hurducaș, 2016

[245] Carroll *et al*., 2019; Lester, 2020; Pyyry, 2016; Pyyry and Tani, 2019; Soreaunu and Hurducaș, 2016

[246] Lester, 2020; United Nations Committee on the Rights of the Child, 2013

[247] Joelsson, 2022

[248] Bauer *et al*., 2022; Jansson *et al*., 2016; Wales *et al*., 2021

[249] Joelsson, 2022

[250] Bartos, 2013

[251] Koller and Farley, 2019; Weir *et al*., 2022

[252] Bauer *et al*., 2022

[253] Weir *et al*., 2022

[254] Bauer *et al*., 2022; Russell *et al*., 2023; Wales *et al*., 2021

[255] Bourke, 2017; Hooper *et al*., 2015; Wales *et al*., 2021

[256] Arvidsen and Beames, 2019; Malone, 2015; Vanderstede, 2011

[257] Malone, 2015

[258] Arvidsen and Beames, 2019

[259] 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.[260] This brings with it benefits including the capacity to cope with surprise and novel situations,[261] reduced anxiety[262] and a sense of belonging arising from shared play episodes,[263] 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.[264]

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,[265] higher levels of hyperactivity and attention deficit, reduced sense of wellbeing and quality of life,[266] 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.[267]

Playing in the digital realm

Children's digital and non-digital lives are intimately interwoven.[268] Children's virtual worlds and other connected digital games can support children's wellbeing through their inherent sociality,[269] although they carry with them the potential for harm and exclusion, just as offline spaces do.[270] Familiarity with the language, lore, myths and rituals[271] of online games and platforms can engender a sense of belonging.[272] Online spaces can offer opportunities for social connections with friends (most of which are existing offline friends)[273] that can transcend the constraints imposed by adults.[274] This can be particularly true for looked after children,[275] many of whom move frequently and so have difficulty maintaining social contacts other than through social media and video gaming.[276] 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,[277] including for autistic children[278] and LGBTWQIA+ young people.[279]

[260] Gray, 2020

[261] Gray, 2020; Sandseter, 2010; Sandseter and Kennair, 2011

[262] Dodd and Lester, 2021; Dodd *et al*., 2022

[263] Little and Stapleton, 2021

[264] Sando *et al*., 2021

[265] Gray, 2011; Gray *et al*., 2023

[266] Suchert *et al*., 2015

[267] Pacilli *et al*., 2013

[268] Bailey, 2021; Burke, 2013; Ruckenstein, 2013; Stevens *et al*., 2017; Wilson, 2016

[269] Carter *et al*., 2020; Markey *et al*., 2020; Robertson, 2021

[270] Colvert, 2021; Marsh, 2011, 2012; Stevens *et al*., 2017

[271] Robertson, 2021

[272] Bailey, 2016, 2021; Marlatt, 2020; Marsh, 2012; Ringland, 2019

[273] Carter *et al*., 2020

[274] Colvert, 2021; Ruckenstein, 2013; Wilson, 2016

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

[276] Wilson, 2016

[277] Bailey, 2021; Ruckenstein, 2013; Yau and Reich, 2018

[278] Ringland, 2019

[279] Downing, 2013

'Natural' places

There is a burgeoning literature on children's (lack of) contact with nature.[280] 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[281]
- attention restoration, working memory, social affiliations, self-discipline, improving behaviour and symptoms of ADHD, improving academic performance, offering relief from stress[282]
- positive (and sometimes negative) affect, self-esteem and confidence, stress reduction and restoration, social benefits and resilience[283]
- 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[284]
- reduced symptoms of ADHD, reduced stress, overall improved mental health, resilience, and health-related quality of life[285]
- environmental knowledge and more pro-environment attitudes as an adult.[286]

Nevertheless, critiques of the idea that children are losing their connection to nature are several.[287] 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'.[288] Others highlight the romanticisation of nature that combines powerfully with ideals of childhood innocence[289] in ways that are classed, racialised and gendered.[290] Critics also point out that the idea of 'disconnection' from nature perpetuates a nature-culture separation.[291] 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.[292] 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.[293]

[280] Edwards *et al*., 2020; Frumkin *et al*., 2017; Larson *et al*., 2019; Charles and Louv, 2009, 2020; Louv, 2005; Moss, 2012

[281] Dankiw *et al*., 2020

[282] McCormick, 2017

[283] Roberts *et al*., 2019

[284] Mygind *et al*., 2021

[285] Tillmann *et al*., 2018

[286] Gill, 2011, 2014

[287] Kraftl *et al*., 2018; Lester, 2016; Malone, 2016a; Rautio *et al*., 2017; Taylor, 2017

[288] Rautio *et al*., 2017, p. 1379

[289] Harwood *et al*., 2019; Kraftl *et al*., 2018; Lester, 2016, 2020; Taylor, 2013, 2017

[290] Dickinson, 2013; Taylor, 2017

[291] Fletcher, 2017

[292] Taylor, 2017

[293] Malone, 2016a, 2016b; Murris, 2016; Rautio *et al*., 2017; Taylor, 2017

From a relational perspective, rather than seeing the 'child in nature',[294] attention can turn to the entanglements of bodies (human and non-human), materialities (both 'natural' and manufactured) and affect.[295] 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.[296]

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[297] 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.

[294] Harwood *et al*., 2019, p. 58

[295] Harwood *et al*., 2019; Malone, 2016a, 2016b; Rautio *et al*., 2017

[296] Änggård, 2016; Goodenough *et al*., 2021; Harwood *et al*., 2019; Nelson, 2020; Rautio and Jokinen, 2016; Wales *et al*., 2021

[297] Nussbaum, 2007

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*.[298]

A common concept to be found in the literature on how, when, where and with whom children play draws on theories of affordances.[299] Affordances are what an organism perceives an environment could offer for action.[300] As was shown in chapter 3, perception entails senses, movement and affect as well as cognition.[301] Important too are the social and emotional aspects that also influence whether or not a child can actualise a physical affordance.[302] 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[303] 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,

[298] 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).

[299] For example, Chatterjee, 2017; Gill, 2021; Heft and Kyttä, 2006; Kyttä *et al*., 2018; Li and Seymour, 2019; Malone, 2015; Woolley, 2013

[300] Gibson, 1979

[301] Corris and Chemero, 2022; Sheets-Johnstone, 2018

[302] Kyttä, 2004

[303] Lester and Russell, 2013a, 2014a; Russell *et al*., 2019, 2020

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,[304] 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.[305] 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.[306] It can instead attend to the complexities of these relations, recognising that they are situated and negotiable,[307] and that children's lives are dynamic, continuously changing over time and space.[308]

1.6.1 A framework and structure for the chapter

Chapter 4 is structured using the idea of first, second and third places.[309] 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.[310] 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.[311] 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.

[304] United Nations Committee on the Rights of the Child, 2013

[305] Freeman, 2020; Holloway, 2014; Horton and Kraftl, 2018a; Malone and Rudner, 2016

[306] Änggård, 2016; Ansell, 2009; Holloway, 2014; Malone, 2016a, 2016b; Marsh *et al*., 2016; Nairn and Kraftl, 2016; Smith and Dunkley, 2018

[307] Malone, 2016a, 2016b; Prout, 2011; Ruckenstein, 2013

[308] Freeman, 2020

[309] 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)

[310] Carroll *et al*., 2015

[311] Jeffres *et al*., 2009

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.[312] 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,[313] 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.[314]

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.[315] Whilst acknowledging both the diversity of childhoods and critiques of some of the assumptions and methods of data collection,[316] there are discernible trends across minority world countries showing a decline in the numbers of children playing out regularly[317] and the amount of time children spend playing outside,[318] an increase in the age at which most children are allowed out to play,[319] and reductions in the distances children are allowed to travel without adult accompaniment.[320] 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.[321]

Nevertheless, children overwhelmingly continue to report a strong desire for playing outside with their friends,[322] and when the conditions are right, children do still play out.[323]

[312] Bergen, 2018; Borst, 2021; Brown, 2014; Gleave and Cole-Hamilton, 2012; Gray, 2011, 2023

[313] Basset *et al*., 2015; Harris, 2017; Jelleyman *et al*., 2019; McQuade *et al*., 2019; Play England, 2023

[314] 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

[315] Barron and Emmett, 2020; Bates and Stone, 2015; Holt *et al*., 2016; Gray *et al*., 2015; Karsten, 2005; Lewis, 2017; Loebach *et al*., 2021; McQuade *et al*., 2019; Mullan, 2019; Woolley and Griffin, 2015

[316] 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

[317] Loebach and Gilliland, 2016a, 2016b; Play England, 2023

[318] Larouche *et al*., 2017

[319] Dodd *et al*., 2021; Shaw *et al*., 2015

[320] Dodd *et al*., 2021; Gill, 2021; Malone and Rudner, 2016; Shaw *et al*., 2015

[321] Holt *et al*., 2016; McQuade *et al*., 2019

[322] Brockman *et al*., 2011; Children's Commissioner for England, 2021; Children's Commissioner for Wales, 2018; Dallimore, 2019; HAPPEN, 2018

[323] 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.[324] 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.[325] 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[326] and the lure of digital technology.[327] 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,[328] including the very real risks faced by those living in structurally marginalised neighbourhoods.[329] 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,[330] with news and social media often serving to amplify parental guilt and perceptions of risk.[331]

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.[332] 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,[333] much of it being sold into private ownership.[334] Between 1979 and 2018, 10% of Britain's landmass, the equivalent of two million hectares, was transferred from public to private ownership.[335] 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.[336] Over the last 25 years, the number of cars licensed in Great Britain has risen by 39.6%,[337] meaning that there are over three times as many motor vehicles as children in the UK,[338] 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,

[324] Frohlich and Collins, 2023; Loebach *et al*., 2021; Wen *et al*., 2009

[325] Kraftl, 2020b; Loebach and Gilliland, 2016a, 2016b; Mikkelsen and Christensen, 2009; Murray and Cortés-Morales, 2019; Nansen *et al*., 2015; Russell *et al*., 2020

[326] Borst, 2021; Day, 2023; Gray, 2011; Lee *et al*., 2015; Tremblay *et al*., 2015

[327] Brown, 2014; Elkind, 2008

[328] Bauer *et al*., 2021; Gerlach *et al*., 2019; Giles *et al*., 2019; Talbot, 2013

[329] Gerlach *et al*., 2019

[330] Day, 2023; McQuade *et al*., 2019; Mainland *et al*., 2017; Pynn *et al*., 2019; Rixon *et al*., 2019

[331] Chaudron *et al*., 2017; Day, 2023; Talbot, 2013

[332] Bollier, 2016; Monbiot *et al*., 2019

[333] Hart, 2014

[334] Brett, 2018; Grant, 2022; Layard, 2019; Monbiot *et al*., 2019; Smith, 2021

[335] Brett, 2018

[336] Frohlich and Collins, 2023; Monbiot *et al*., 2019; Russell, 2021; Wood *et al*., 2019

[337] NimbleFins, 2022

[338] Department for Transport, 2019a; Office for National Statistics, 2020b; White, 2019

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.[339]

These wide-ranging, fluid and entangled influences can be seen as 'conversion factors'[340] (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,[341] gender,[342] dis/ability, neurodiversity and mobility,[343] race and ethnicity,[344] and socioeconomic status.[345]
- Presence of older siblings and numbers of children in the household.[346]
- Children's motivations, preferences and interests, associated with children's perceptions of neighbourhood safety and the availability of friends to play with.[347]
- The appeal of (predominantly indoor based) digital technologies.[348]

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.[349]
- Parental perceptions of neighbourhood safety and the perceived need for surveillance of children.[350]

[339] 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

[340] Robeyns, 2017

[341] Alparone and Pacilli, 2012; Janssen *et al*., 2015; Lee *et al*. 2015; Loebach *et al*., 2021; Shaw *et al*., 2012; Zougheibe *et al*., 2021

[342] 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

[343] Beetham *et al*., 2019; Dallimore, 2019; Dodd *et al*., 2021; Horton, 2017; Memari *et al*., 2015; Stafford *et al*., 2020; von Benzon, 2017

[344] 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

[345] 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

[346] Alparone and Pacilli, 2012; Singer *et al*., 2009

[347] Cleland *et al*., 2010; Loebach *et al*., 2021; Shaw *et al*., 2012; Veitch, 2007

[348] 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

[349] 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

[350] 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.[351]
- Attitudes and actions of other residents or housing managers, including contractually prohibiting play because it is a reported nuisance to adult residents.[352]
- Risks of living in areas with high levels of drug and alcohol use, rough sleeping and the sex trade.[353]
- Levels of crime and violence, historic and/or more recent traumatic events,[354] as well as urban myths and rumours.[355]
- Media coverage of crime, violence and tragic events involving children.[356]
- Family routines and schedules.[357]
- Parental working patterns, presence at home, and the time available to support children's activities.[358]
- Levels of homework set by schools.[359]
- The 'free time' available to children.[360]
- The extent to which a culture of playing out exists in neighbourhoods[361] together with associated tolerance and acceptance of such behaviours amongst adult residents.[362]

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.[363]
- The intersections of poverty, structural marginalisation, exclusion, racism, ableism, sexism, classism, heterosexism and childism.[364]
- Settlement size and type, level of urbanisation and associated urban form[365] including the topographic and geographic layouts of neighbourhoods.[366]
- Volume and speed of traffic, associated road safety issues and levels of on street parking.[367]

[351] Lee *et al.*, 2015; Long, 2017

[352] Grant, 2022; Krysiak, 2018; Play England, 2023; Witten *et al.*, 2015

[353] Gerlach *et al.*, 2019; Witten and Carroll, 2016; Witten *et al.*, 2015, 2019

[354] Malone and Rudner, 2016

[355] Horton and Kraftl, 2018a

[356] Lee *et al.*, 2015; Bhosale *et al.*, 2017

[357] Crawford *et al.*, 2017; Nansen *et al.*, 2015; Visser, 2020

[358] Lee *et al.*, 2015; Smith *et al.*, 2018

[359] Mullan, 2019; Smith *et al.*, 2018

[360] Bhosale *et al.*, 2017; Holloway and Pimlott-Wilson, 2014; Loebach *et al.*, 2021; Malone and Rudner, 2016; Smith *et al.*, 2018

[361] Malone and Rudner, 2016

[362] Long, 2017

[363] Jago *et al.*, 2009; Lee *et al.*, 2015; Loebach *et al.*, 2021; Veitch, 2007; Zougheibe *et al.*, 2021

[364] 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

[365] Malone and Rudner, 2016

[366] Bornat, 2016; Bornat and Shaw, 2019; Loebach *et al.*, 2021; Long, 2017

- Street connectivity and the availability of traffic-free walking and cycling routes.[368]
- Proximity, number, diversity, accessibility, connectedness and greenness of playable spaces.[369]
- Design, functionality, and maintenance of public spaces, including the range of affordances and sense of security offered to different ages of children.[370]
- Ease of access.[371]
- School location, siting decisions and distances between home and school.[372]
- Weather, time of year and daylight hours.[373]
- Privatisation of public space and the commercialisation of play provision.[374]
- Consumer culture, corporate interests, and associated commercialisation of childhood.[375]
- Government ideology, associated policy, levels of public investment, and regulation of corporate interests.[376]

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,[377] actively contributing to the social production of neighbourhood spaces[378] and helping to build their own and families' social capital, social networks and community engagement,[379] 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[380] and can readily be recognised as third places for them.[381] The street can incorporate threshold spaces, transitory zones and destinations spaces.[382] Threshold third places include the foyers, communal leisure facilities, and corridors of those living in medium and high-density housing, as well

[367] Basset *et al*., 2015; Bhosale *et al*., 2017; Frohlich and Collins, 2023; McQuade *et al*., 2019; Veitch *et al*., 2017; Wales *et al*., 2021

[368] Bornat, 2016; Bornat and Shaw, 2019; Malone and Rudner, 2016; Oliver *et al*., 2015; Villanueva *et al*., 2014; Wales *et al*., 2021

[369] 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

[370] Eyre *et al*., 2015; Lee *et al*., 2015; Veitch 2007

[371] Jago *et al*., 2009; Lee *et al*., 2015; Veitch, 2007

[372] Basset *et al*., 2015; Fyhri *et al*., 2011; Malone and Rudner, 2016; Oliver *et al*., 2015

[373] Brockman, 2011; Ergler *et al*., 2013; Eyre *et al*., 2015; Smith *et al*., 2018

[374] Lee *et al*., 2015; Layard, 2019; Hart, 2014; Monbiot *et al*., 2019; Brett, 2018; Frago and Graziano, 2021; Shearer and Walters, 2015

[375] Marsh, 2011, 2012, 2014; Grant, 2022; Holloway and Pimlott-Wilson, 2014; Colvert, 2021; Verdoodt *et al*., 2021

[376] Burman, 2019; Kallio *et al*., 2020; Katz, 2019; Lester, 2020; Pyyry and Tani, 2019; Russell, 2021; Smith, 2021; Wood *et al*., 2019; Association for Public Service Excellence, 2021

[377] Derr *et al*., 2017; Malone, 2013; Wales *et al*., 2021

[378] Bullough *et al*., 2018; Lester and Russell, 2013a

[379] 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

[380] Barclay and Tawil, 2013; Danenberg *et al*., 2018; Francis, 2016; Gill, 2021; Tranter, 2015, Weir, 2023

[381] 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

[382] Carroll *et al*., 2015; Witten and Carroll, 2016

as adjacent pathways, streets and verges, car parks and driveways[383] that are close to home, and are commonly reported as popular places to play.[384]

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.[385] 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.[386] Often children appropriate streets in ways not intended by planners,[387] 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.[388]

Destination third places, significant in children's lived experience, are important spaces for meeting up and being with friends, playing traditional games and sports, climbing, imaginary play, and as places of refuge.[389] These spaces include small pockets of land, vacant lots, car parks, empty school playgrounds, woodland spots, shopping malls, shopfronts and more,[390] as well as designated spaces such as playgrounds and parks.

Playgrounds, parks and green spaces are also popular destination spaces for children.[391] In terms of playgrounds, older children tend to feel that they are aimed at younger children and often do not cater for them.[392] Playground design can be based on normative conceptions of children's bodies, ways of being in the world and mobilities, thereby excluding disabled children.[393] The concept of universal design is recommended in the United Nations Committee on the Rights of the Child General Comment no. 17, but also creates a tension between access and challenge.[394] Equally, provision for teenagers tends to focus on stereotypically masculine activities such as skateparks and MUGAs (Muli-Use Games Areas).[395]

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.[396] The last 20 years has seen a growing narrative in favour of balancing risks and benefits in playground design.[397] Playground maintenance is an important issue for children,[398] but budgets for both playgrounds and parks have faced significant cuts.[399] 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

[383] Bornat and Shaw, 2019; Tranter, 2016; Witten *et al*., 2019

[384] Barclay and Tawil, 2013; Danenberg *et al*., 2018; Francis, 2016; Gill, 2021; Tranter, 2015; Weir, 2023; Witten *et al*., 2015

[385] 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

[386] Othman and Said, 2012; Russell and Stenning, 2021, 2022

[387] Nairn and Kraftl, 2016

[388] Mould, 2016; Nairn and Kraftl, 2016; Pyyry and Tani, 2019; Rannikko *et al*., 2016; Stratford, 2016

[389] Arvidsen and Beames, 2019; Carroll *et al*., 2015; McKendrick *et al*., 2018; Wilson, 2015

[390] Carroll *et al*., 2015; Kearns *et al*., 2016; Pyyry, 2016; Witten and Carroll, 2016

[391] Dodd *et al*., 2021; Helleman, 2021; Porter *et al*., 2021

[392] Kraftl, 2020b; Lee *et al*., 2015; Lynch *et al*., 2020; Russell *et al*., 2019

[393] Brown *et al*., 2021; Lynch *et al*., 2018; Moore *et al*., 2022

[394] Lynch *et al*., 2018

[395] Corkery and Bishop, 2020; Seims *et al*., 2022

[396] Lynch *et al*., 2020

[397] Ball *et al*., 2008, 2012; Ball *et al*., 2019; Spiegal *et al*., 2014

[398] Horton and Kraftl, 2018a, 2018b; Loebach *et al*., 2021

[399] Association of Play Industries, 2022; Association for Public Service Excellence, 2021; Russell *et al*., 2019

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.[400]

What emerges from these multiple studies of playing out in the public realm is the interdependence of 'children's infrastructure' and 'everyday freedoms'.[401] 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).[402] For children, being able to access these spaces requires low or traffic-free routes and no major roads to cross.[403] It also requires friends nearby,[404] parental permission,[405] the absence of threats from other people and their actions[406] and a culture where playing out is seen as normal.[407] 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.[408] In response, parents have invested in toys and media technologies aimed at providing for children's play within the home,[409] accompanied by a concurrent rise in consumer goods targeted at children.[410] 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.[411] 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,[412] and a place where children are likely to experience a greater sense of autonomy, negotiating child-adult relationships and shared use of space.[413] However, home is not a place of safety for all children, including those living with domestic violence, abuse and neglect,[414] or those living in cramped or temporary accommodation.[415]

Many children's homes are now characterised by an abundance of toys.[416] The toy industry is big business, with manufacturers seeking to continually attract children with an ever greater variety of increasingly sophisticated toys.[417] In the UK, total sales for toys in 2020 (during the pandemic) reached £3.3 billion, with the UK being the

[400] Hobbs *et al*., 2017; Gerlach *et al*., 2019; Horton and Kraftl, 2018a, 2018b; Witten and Carroll, 2016; Witten *et al*., 2015, 2019

[401] Arup, 2017

[402] Barclay and Tawil, 2016

[403] Loebach and Gilliland, 2016a

[404] Play England, 2023

[405] Loebach and Gilliland, 2016a

[406] 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

[407] Lester and Russell, 2013a; Barclay and Tawil, 2021; Wales *et al*., 2021

[408] Adcock, 2016; Bacon, 2018; Dallimore, 2019; Dodd *et al*., 2021; Kearns *et al*., 2016; Loebenberg, 2013

[409] Lincoln, 2016

[410] Cowman, 2017

[411] Adcock, 2016; Bacon, 2018; Lincoln, 2016; Meire, 2007; Woodyer and Carter, 2020

[412] Adcock, 2016; Harden *et al*., 2013

[413] Bacon, 2018; Harden *et al*., 2013

[414] Chanmugam, 2017; Wilson, 2015

[415] Russell *et al*., 2019

[416] Arnold *et al*., 2012; Dauch *et al*., 2018; Jones, 2018

largest toy market in Europe and fourth largest globally.[418] Decisions on buying toys are often made between children and parents, or at least influenced by children's interests and preferences,[419] with media, marketing, and societal gender stereotypes affecting both parents' and children's choices.[420] As children get older the social value of toys becomes increasingly important,[421] with toys forming a significant element of the material cultures of childhood.[422] 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.[423]

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,[424] meaning that those with less domestic space are once again at a disadvantage.[425] 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'.[426] Bedrooms also provide children with a place to gather, store and display their material possessions and personal belongings.[427] 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.[428] Although bedrooms can provide a refuge, a place of retreat and recuperation,[429] 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.[430]

For those who have them, gardens are also important spaces for play, offering a relatively adult-free space still close to home.[431] 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.[432] Yet, one in eight households in the UK does not have access to a private or shared garden,[433] 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.[434]

[417] Klemenović, 2014

[418] Toyworld, 2021

[419] Dinella and Weisgram, 2018; Klemenović, 2014

[420] Dinella and Weisgram, 2018

[421] Loebenberg, 2012

[422] Buckingham, 2011; Mertala *et al*., 2016; Wilson, 2016; Wohlwend, 2020

[423] Cook, 2013; Loebenburg, 2012; Wooder, 2017; Woodyer and Carter, 2020

[424] Bacon, 2018; Lincoln, 2016

[425] Adcock, 2016; Bacon, 2018

[426] Bacon, 2018; Lincoln, 2016

[427] Adcock, 2016; Bacon, 2018; Lincoln, 2016

[428] Bacon, 2018

[429] Bacon, 2018; Lincoln, 2016

[430] Lincoln, 2016; Loebenberg, 2013

[431] Dodd *et al*., 2021; Arvidsen *et al*., 2020

[432] Arvidsen *et al*., 2020

[433] Office for National Statistics, 2020a

[434] 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.[435] 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.[436]

The attraction of digital play for children possibly lies in how games and platforms provide for the qualities and characteristics of children's play,[437] 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.[438]
- **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.[439]
- **ease of access**: most UK children have access to a range of digital technologies at home and elsewhere,[440] and most have internet access.[441] 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.[442] As with permission for 'playing out', parental controls are often negotiated[443] and subject to ongoing tensions between children being afforded freedom, concerns for their online safety and the consequence of too much screen time.[444]

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.[445]

[435] Bailey, 2021; Chaudron *et al.*, 2017; Colvert, 2021; Cowan *et al.*, 2021; Dekavalla, 2021; Lincoln, 2016; Livingstone *et al.*, 2017; Marsh, 2016; Marsh, 2017; Marsh *et al.*, 2020; Potter and Cowan, 2020; Smith and Dunkley, 2018; Willet, 2017

[436] Chaudron *et al.*, 2018a; Marsh *et al.*, 2020

[437] Chaudron *et al.*, 2018a; Colvert, 2021; Marsh *et al.*, 2016 and 2020; Ruckenstein, 2013; Verdoodt *et al.*, 2021; Willet, 2017

[438] Colvert, 2021; Loebenberg, 2013; Marsh *et al.*, 2020; Ringland *et al.*, 2017; Ruckenstein, 2013

[439] Blum-Ross *et al.*, 2018; Chaudron *et al.*, 2017; Colvert, 2021; Marsh *et al.*, 2020; Ruckenstein, 2013; Willet, 2017

[440] Marsh *et al.*, 2020

[441] Livingstone *et al.*, 2017

[442] Blum-Ross *et al.*, 2018; Ruckenstein, 2013

[443] Chaudron *et al.*, 2018b; Ruckenstein, 2013

[444] Chaudron *et al.*, 2018b; Colvert, 2021; Marsh *et al.*, 2019

[445] 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.[446]

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.[447] 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.[448]

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)[449] was valued at $756.48m in 2020,[450] and is often marketed in terms of family experiences and/or edutainment.[451] 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.[452]

There is little consensus on the value of school playtimes among school staff.[453] When asked, most children say they enjoy playtimes,[454] but in one substantial English survey 5% said they did not.[455] A key complaint is that there are too many rules.[456] Friendships at school are important, and often what children value most.[457] Although some adults feel that children no longer know how to play,[458] research reveals a continuing rich culture of children's play in school playgrounds.[459] Such playground cultures are 'expressed through playground songs, games, rituals, naming of specific places in the playground and myriad other practices'[460] and absorb whatever material, cultural and social resources that are to hand, again blending children's offline and online worlds.[461]

[446] 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

[447] Holloway and Pimlott-Wilson, 2014; Karsten, 2015

[448] Holloway and Pimlott-Wilson, 2014, 2018

[449] Benton, 2017

[450] Allied Marketing, 2022

[451] Karsten, 2015; Tagg and Wang, 2016

[452] Fountain *et al.*, 2021; McCabe *et al.*, 2010; Durko and Petrick, 2013; Larson *et al.*, 2013; Mukherjee, 2020

[453] Baines and Blatchford, 2019

[454] Mroz and Woolner, 2015; Mulryan-Kyne, 2014

[455] Baines and Blatchford, 2019

[456] Baines and Blatchford, 2019; Bristow and Atkinson, 2020; Fink and Ramstetter, 2018; Thomson, 2007, 2014

[457] Worth, 2013

[458] Alexander *et al.*, 2014; McNamara, 2013

[459] Beresin, 2014; Marsh and Willett, 2010; Potter and Cowan, 2020

[460] Ardelean *et al.*, 2021, p. 15

[461] 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,[462] including the 2008 global financial crisis[463]
- 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[464]
- in the public realm, the dominance of traffic[465] and issues of neighbourhood safety.[466]

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.[467] Children's playful appropriation of institutional and public space has been described as a disruption or repurposing of the intention for such spaces.[468] 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.[469] 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.[470] 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.[471]

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.[472] The most significant reductions in children's freedom of movement occurred between 1970 and 2000,[473] 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.[474] In poorer communities and for particular groups of children, neighbourhoods also present real dangers from other people.[475]

[462] Lynch, 2019

[463] Create Streets Foundation, 2021; Katz, 2019; McDowell, 2017

[464] Holloway and Pimlott-Wilson, 2014; Marsh, 2011, 2012

[465] 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

[466] 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

[467] Lester, 2020

[468] Carroll *et al*., 2019; Conn, 2015; Pyyry and Tani, 2016; Russell and Stenning, 2022; Shearer and Walters, 2015

[469] Bergen, 2018; Borst, 2021; Brown, 2014; Gleave and Cole-Hamilton, 2012; Gray, 2011; Palmer, 2019

[470] Alexander *et al*., 2014; Lewis, 2017; Smith, 2010; Woodyer *et al*., 2016

[471] For example, Horton and Kraftl, 2018a

[472] Dodd *et al*., 2021; Gill, 2021; Larouche *et al*., 2017; Loebach and Gilliland, 2016a, 2016b; Malone and Rudner, 2016; Shaw *et al*., 2015

[473] Shaw *et al*., 2012

[474] Aarts *et al*., 2012; Arup, 2017; Bourke, 2017; Ferguson, 2019; Frohlich and Collins, 2023; Russell *et al*., 2020; Shaw *et al*., 2015

[475] 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

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.[476] 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.[477] 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.[478]

[476] Brockman *et al*., 2011; Children's Commissioner for England, 2021; Children's Commissioner for Wales, 2018; Dallimore, 2019; HAPPEN, 2018

[477] Russell *et al*., 2019

[478] 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,[479] physical activity and health,[480] obesity reduction,[481] mental health,[482] community cohesion,[483] environmental stewardship.[484]
- **Romantic arguments** about loss of childhood innocence and contact with nature,[485] sometimes alongside a demonising of technology.[486]
- **Rights-based arguments** about the right to play and spatial justice.[487]
- **Economic arguments**, including the social return on investment and attracting families back to cities through regeneration projects.[488]
- **Environmental arguments** that recognise the synergies between spatial justice for children and actions to reduce motorised traffic and to 'green' cities.[489]

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.

[479] Real Play Coalition, 2020, Candiracci *et al*., 2023

[480] 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

[481] Gill *et al*., 2019; Parrish *et al*., 2020

[482] Gill, 2014a; Gill *et al*., 2019; The Means, 2016

[483] Foster *et al*., 2014; Lee *et al*., 2015; Tawil and Barclay, 2020

[484] Chawla, 2015; Dyment and Bell, 2008

[485] Chawla, 2015; Derr and Lance 2012; Nedovic and Morrissey 2013; Verstrate and Karsten, 2016

[486] Charles and Louv, 2009, 2020; Edwards and Larson, 2020; Frumkin *et al*., 2017; Larson *et al*., 2019; Louv, 2005; Moss, 2012

[487] Bornat, 2016; Bornat and Shaw, 2019; Caputo, 2020; Frohlich and Collins, 2023; GOSH, 2022; Lester and Russell, 2013a, 2014a; Patte and Brown, 2011; Russell *et al*., 2019, 2020; Save the Children, 2008; United Nations Committee on the Rights of the Child, 2013; UNICEF, 2009; Wood *et al*., 2019; Wragg, 2016

[488] Arup, 2017; Candiracci *et al*., 2023; Gill, 2014a, 2019, 2021; López *et al*., 2020; Matrix, 2010; Mueller *et al*., 2020; The Means, 2016

[489] Arup, 2017; Candiracci *et al*., 2023; Audrey and Batista-Ferrer, 2015; Bernard van Leer, 2019; Bornat, 2016, 2018; Bernard van Leer Foundation, 2019; 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

- **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;[490] improving opportunities for formal street play projects through the closure of residential streets[491] and streets outside schools;[492] developing community gardens and intergenerational spaces;[493] improving and increasing the availability of playable space;[494] reactivating wilderness spaces and affordances for playful encounters such as public art;[495] a focus on multifunctional green infrastructure such as stormwater parks;[496] playful cultural and heritage sites;[497] multi-use community spaces;[498] and supporting an increased sense of ownership through opportunities for co-creation.[499] Also recommended is supporting children to carry out neighbourhood mapping research to gain insights into the opportunities and barriers they experience.[500]
- **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 in the UK.[501] 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 'place-making', with the Play Sufficiency Duty acknowledged as a complementary tool in this process.[502]
- **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)[503] and moves towards inclusion through universal design.[504]
- **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.[505]

[490] 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

[491] 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

[492] 8 80 Cities, 2022; Clarke, 2022; Gellatly and Marner, 2021; Mayor of London, 2022; Thomas *et al*., 2022

[493] Arup, 2017; Create Streets Foundation, 2021; Living Streets, 2019; Loukaitou-Sideris *et al*., 2013; Stevens *et al*., 2022

[494] 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

[495] Arup, 2017

[496] Buckley *et al*., 2017; Global Designing Cities Initiative, 2016; Newell *et al*., 2013

[497] Chester Zoo, 2022; Derry, 2021; Dickerson and Derry, 2021; Jennings, 2016; Kinney and Smith, 2021; Lester *et al*., 2014; Tawil and Barclay, 2018

[498] Arup, 2017; Bornat and Shaw, 2019; Krysiak, 2019; López *et al*., 2020; Studio Ludo, 2017; Wilson, 2018

[499] Corkery and Bishop, 2020; Ferguson, 2019; Kreutz, 2020; Loebach, 2020; López *et al*., 2020; Royal Town Planning Institute, 2021; Woolley *et al*., 2020

[500] 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

[501] Wood *et al*., 2019

[502] Wood *et al*., 2019

[503] Murnaghan, 2019; Shackell *et al*., 2008; Studio Ludo, 2017; Verstrate and Karsten, 2016; Voce, 2015a

[504] Lynch *et al*., 2020; United Nations Committee on the Rights of the Child, 2013

[505] 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.[506] Working ethically with children as change agents is crucial to effective change at both policy and neighbourhood level.[507] 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.[508]
- **Playwork provision:** The austerity agenda has led to severe cuts in playwork services generally and provision in particular.[509] 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.[510] 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,[511] including regularly feeding children, often funded in school holidays through government programmes.[512]

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[513] 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,[514] 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

[506] Gill, 2021; Royal Town Planning Institute, 2021

[507] Bornat, 2016; Bornat and Shaw, 2019; Brown *et al*., 2019; Corkery and Bishop, 2020; Gill, 2021; Khan *et al*., 2022; Loebach, 2020

[508] Russell *et al*., 2020

[509] Brown and Wragg, 2018; Children's Rights Alliance England, 2015; Gill, 2015b; McKendrick *et al*., 2015; Voce, 2015b, 2021

[510] Cullen and Johnston, 2018; Roraburgh, 2019; Shaw, 2023

[511] King, 2021

[512] Geary *et al*., 2019

[513] Amin, 2006: this model has been used in the four studies into the Play Sufficiency Duty.

[514] For example, Biggeri *et al*., 2011; Camfield and Tafere, 2011; Domínguez-Serrano *et al*., 2019; Kellock and Lawthom, 2011; Schweiger, 2016

personal, social and environmental factors.[515] A key criticism of this approach has been its emphasis on individual freedom and rational choice.[516] 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.[517]

Given this, we proposed a relational capability approach that pays attention to the 'material and discursive entanglements that render children capable'.[518] 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.[519] 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.[520] This statement is more than the truism that play is fun. Children's engagement may be serious and engrossed,[521] or even harmful.[522] Sometimes, those involved in games are mistreated to the extent that the experience is not good for them.[523] 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.[524] It also releases neurotrophins that can have more lasting protection against depression.[525]

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.[526] 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.[527] 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.

[515] Robeyns, 2017

[516] Fattore and Mason, 2017

[517] Andrews *et al*., 2014; Coffey, 2020; Lester, 2020

[518] Murris, 2019, p. 56

[519] Damasio, 2018; Lester, 2020

[520] Burgdorf *et al*., 2017; Coffey *et al*., 2015; Fredrickson, 2013; Granic *et al*., 2014; Panksepp, 2010, 2016; Tugade *et al*., 2021

[521] Henricks, 2015; McDonnell, 2019

[522] Sicart, 2014; Sutton-Smith, 2017

[523] 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

[524] di Domenico and Ryan, 2017; Trezza *et al*., 2019

[525] Panksepp, 2010, 2012, 2016; Panksepp *et al*., 2019

[526] Eberle, 2014; Granic *et al*., 2014; Panksepp, 2010, 2016; Panksepp and Panksepp, 2013; Panksepp *et al*., 2012; Pellis *et al*., 2014; Pellis and Pellis, 2017; Sharpe, 2019; Sutton-Smith, 2017; Vanderschuren and Trezza, 2014

[527] 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

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),[528] friends (characterised by conflicts as well as affective solidarity and support),[529] other non-human animals,[530] and to place,[531] 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,[532] 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[533] 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[534] 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.

[528] Bergen *et al*., 2016; Gordon, 2015; Gorrese, 2016; Gorrese and Ruggieri, 2012; Jackson and McGlone, 2020; Masten, 2014; McGinley and Evans, 2020; Panksepp, 2010

[529] 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

[530] Christian *et al*., 2020; Dueñas *et al*., 2021; Moore and Lynch, 2018; O'Haire *et al*., 2015; Rautio, 2013b; Tipper, 2011

[531] 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

[532] Nussbaum, 2007

[533] Amin, 2006

[534] 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. It also acknowledges the personal, social and environmental factors that support or constrain children's capability to convert resources and opportunities into functionings.[535] 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.[536] 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.[537] 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**.

[535] Owen *et al*., 2021

[536] Arup, 2017; Bornat, 2016, 2018; Bornat and Shaw, 2019; Gill, 2021; Jansson *et al*., 2022

[537] Russell *et al*., 2019, 2020

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.[538] 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[539] and often also needs changes to the social production of space through activation.[540]

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.[541] 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.[542] Equally, studies of children's play cultures show its capacity for nonsense, sophisticated subversion and imagining the world anew.[543]

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.[544] 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.[545] 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.

[538] Russell *et al*., 2023

[539] Pérez del Pulgar *et al*., 2020

[540] Placemaking Wales, 2020

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

[542] Panksepp, 2008, 2010, 2015; Sgro and Mychasiuk, 2020

[543] Corsaro, 2020; Koch, 2018; Lester, 2020

[544] Dickerson and Derry, 2021; Russell *et al*., 2020; Russell *et al*., 2023

[545] Lester, 2020, and as outlined in chapter 2

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'.[546] Rights refers to more than access to resources and services and also includes the right to participate in the production of public spaces.[547] 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.

[546] Amin, 2006, p. 1015

[547] Carroll *et al*., 2019; Pyyry and Tani, 2016; Russell, 2020

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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.

January 2024