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Abstract: Across the social sciences there is an extensive literature exploring the complex relationships between society and nature, increasingly concerned with, and critiquing, the notion of a unique relationship between children and green space. However, a nature/culture dichotomy remains central to socio-political discourse presenting a crisis of detachment. This nature/culture division can also be seen through practices surrounding children's natural environment access. This paper explores the conflict between academic and societal approaches to the nature/culture divide through the perceptions and experiences of learning disabled young people, aged 11-16. The findings illustrate the importance of allowing (learning disabled) young people the opportunity for embodied engagement in natural spaces. Through activity the young people developed nuanced and hybrid understandings of nature that contest widely held dichotomies of nature and culture. This conceptualisation of complexity and non-dichotomy in the relationship between culture and nature may underpin exploration of the specific factors of natural landscapes that provide wellbeing benefits, potentially increasing the accessibility of the recognised benefits of natural environment interaction for those who experience challenges in reaching rural green space. As such, this paper presents a call for academics to communicate hybrid geographies in a way that is accessible beyond the ivory tower.

Lancaster Environment Centre

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14th August 2017

Dear Editors,

Re: Discussing Nature, 'Doing' Nature: for an emancipatory approach to conceptualizing young people's access to outdoor green space

Please find attached a paper intended for publication in Geoforum addressing the issue of defining and conceptualising nature in the context of facilitating access for learning disabled young people.

The paper is 8,855 words long, including all footnotes and bibliography. Excluding bibliography the paper is 6, 679 words long.

I hope you will find the paper a good fit with the journal's remit. It is intended as a social geography paper that engages with theories of nature from across the social sciences.

Yours Faithfully,

Nadia

Dr Nadia von Benzon Lecturer in Human Geography 1

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Discussing Nature, 'Doing' Nature: for an emancipatory approach to

conceptualizing young people's access to outdoor green space

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Abstract

Across the social sciences there is an extensive literature exploring the complex relationships between society and nature, increasingly concerned with, and critiquing, the notion of a unique relationship between children and green space. However, a nature/culture dichotomy remains central to socio-political discourse presenting a crisis of detachment. This nature/culture division can also be seen through practices surrounding children's natural environment access. This paper explores the conflict between academic and societal approaches to the nature/culture divide through the perceptions and experiences of learning disabled young people, aged 11-16. The findings illustrate the importance of allowing (learning disabled) young people the opportunity for embodied engagement in natural spaces. Through activity the young people developed nuanced and hybrid understandings of nature that contest widely held dichotomies of nature and culture. This conceptualisation of complexity and non-dichotomy in the relationship between culture and nature may underpin exploration of the specific factors of natural landscapes that provide wellbeing benefits, potentially increasing the accessibility of the recognised benefits of natural environment interaction for those who experience challenges in reaching rural green space. As such, this paper presents a call for academics to communicate hybrid geographies in a way that is accessible beyond the ivory tower.

Key Words

Nature, young people, learning disability, environmental affordances, agential realism

Author Biography

Nadia von Benzon is a lecturer in human geography at Lancaster University. As an early career social geographer she is currently finishing publishing from her PhD research, completed at University of Manchester. Her PhD explored access to the natural environment for learning disabled young people, based in Greater Manchester. She is currently completing a second piece of research on home-schooling mothers' use of blogs, and plans to continue to develop research focused on children, young people and

- parenthood. She has a number of papers published in international journals, including *Rural Studies, Social*
- 2 and Cultural Geographies and Children's Geographies, as well as chapters in edited collections.

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Discussing Nature, 'Doing' Nature: for an emancipatory approach to

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Abstract

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Introduction

This paper explores what happens – the material places that emerge (Shillington, 2014) and the socio-spatial practices and structures that develop – through the romantic idealisation, and thereby the 'othering', of children and of nature (Taylor, 2013). Whilst many authors, including Taylor (2011, 2013), have argued for a conceptual blurring of artificial culture-nature boundaries (Castree, 2004; Malone, 2015; Kelley et al., 2012), the proliferation of the idea of the separation of nature and culture, and the naturalised link between children and nature, shape the socio-political formation of the relationship between society and the natural world (Head and Muir, 2006; Waitt et al., 2009). This paper seeks to explore the way that a dichotomous social interpretation of culture versus nature has informed learning disabled young people's experiences of outdoor green space.

This paper contributes to a burgeoning post-natural geographical literature exploring the hybridity of the social world around us, and simultaneously making visible and critiquing the dichotomous conceptual structuring of the neoliberal western world (Whatmore, 2002; Bennett, 2009; Barad, 2003). Human geography as a discipline is now comfortably post-nature, post-human and ostensibly post-structure, although competing frameworks, viewpoints and concepts vie for theoretical forerunning, happily fuelling the engines of spirited academic discourse. This paper intends to respond to Panelli's (2010) call to engage indigenous populations in post-human discourse, considering children as the indigenous experts in their own relationships with space, whilst drawing on child-centred development in social geography and urban ecology such as Shillington and Murnaghan's (2016) conceptual queering of a child-nature relationship. As a result this paper presents an unusual empirical insight that provides useful evidence for developing the debate around the value of embodied experiences of natural spaces that move beyond essentialist discourse concerning the innate relationship between children and nature.

This paper argues that the reified outcome of public understanding of nature as a distinct and bounded environment, is a detached and somewhat bleak approach to learning disabled children's relationship to outdoor, green, and more-than-urban spaces. By contrast the post-dichotic approach prevalent across the social sciences may prioritize emotional and embodied engagement between children and outdoor spaces, lending itself to a more positive perception of the environment and the self. As such, this argues that an emancipatory approach to doing social geography may require geographers to translate this academic discourse for the general public, to counter the dominant media discourse of a romanticized and innate connection between a heteronormative child and a distinct, yet diminishing 'nature' (Shillington and Murnaghan, 2016; Cairns, 2016).

Author's note

The young people who participated in this research were 11-16 year olds attending a specialist school for mild-moderately intellectually disabled 11-19 year olds in Greater Manchester. Therefore the young people might be considered to self-identify as learning disabled. The term 'learning disabled' is used thoughout this paper in response to the social model of disability which argues that people are disabled not as a logical outcome of impairment, but by society's inability to meet their needs (e.g.Oliver, 2004).

Review of literature

The dominant narrative in media representations of children's engagement with outdoor green space is one of a naive and innocent, heteronormative, able-bodied and neurotypical child, who has the potential to enjoy a positive, and symbiotic relationship with 'nature' (Moss. 2012). Typically this relationship is presented as an innate need for child/nature interaction that must be satisfied through unbounded, but productive and creative, engagement with wildlife and open space (Wilson, 2012; Bragg et al., 2013; Nilsen, 2008). Authors such as Louv (2005) present a crisis of detachment in which this fundamental relationship is under threat from competing interests, over-zealous risk management and a reduction in natural environments. Meanwhile newspapers run regular opinion pieces and light news reflecting and reinforcing public concerns over such issues as the reduction in time children spend outdoors, children's inability to identify wildlife, and reduced opportunities to climb trees (Monbiot, 2012; Meech, 2014; Bissett, 2016). The idea of children spending time in nature is part of an entrenched public imaginary of what it is to be a child, and closely tied to public understanding of childhood health and happiness (Taylor, 2011).

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Alongside the news media, this public imaginary of an innate and positive relationship between children and nature is reflected through broader public policy and organizational rhetoric (see, for National Trust's '50 things to do before you're 11 example the campaign: https://www.nationaltrust.org.uk/50-things-to-do). Quinn (2013: 719) describes 'policy appropriation of nature' arguing that nature is increasingly central to policies in neoliberal western democracies (she gives examples of programmes in the US, Singapore and the UK), which are associated with government concerns about developing young people as good citizens. This link between organized nature engagement, access to fresh air, and the development of young people as good citizens (with contrasting definitions of such) has a long Anglo-American tradition. Organizations such as Boys' Brigade, the Baden-Powell Scouting and Guiding movements, Dr Barnardos and the Woodcraft Folk combinined outdoor experiences, often drawing on the cultural appropriation of stereotyped Native American practices, with moral teachings and informal education of the young people in their care (Bigger and Webb, 2010; Soares, 2016; Kyle, 2014; Bannister, 2014; Mills, 2014).

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This presumed connection between good childhood and nature reflects a long history of an assumed connection between the two, traceable to enlightenment thinkers (Taylor, 2011). The intensified public interest can also be theorized as a backlash to a perceived curtailment of children's independent mobility and play (Monbiot, 2012). A discourse of children's reduced opportunities to play outdoors, with marked declines in opportunities for independent mobility and play over a generation, has also been prevalent in academia (Karsten, 2005; Adams and Savahl, 2015, Brussoni et al., 2015; Kaplan and Kaplan, 2002; McCurdy et al., 2010; Witten et al., 2013). This research is highly inter-disciplinary, with contributions from across the social sciences. Whilst much of this corpus of work is interested in children's independence, broadly, some contributions are particularly interested in focusing on a perceived diminishing independent access, and typically therefore, overall access, to green space and wildlife (Balmford et al., 2002; Skar and Krogh, 2009). This narrative feeds a public rhetoric of the 'denaturization' of childhood (Taylor, 2013; McKee, 2005). This concept has in turn led to the development of the term 'nature-deficit disorder' (Louv, 2008), an idea that has gained traction with both campaigners and medical professionals (Driessnack, 2009).

In many of these accounts nature is considered material; landscape, environment or object that can be delineated and designated (Russell et al., 2013; Honold et al., 2016; White et al., 2013). Indeed, a dominant school of thought in environmental psychology sees 'connectedness to nature' as a relationship that can be quantified (Mayer and McPherson Frantz, 2004; Barton et al., 2016). Gillon (2014) describes the way that 'nature' becomes a label ascribed to a landscape for the purposes of consumption or protection, with the designation of rural areas being used as a tool for conservation. In another vast swathe of literature, predominantly emanating from environmental psychology, landscape studies and geography, nature is a term explored in order to interrogate the health and wellbeing benefits of these landscapes to people (Shanahan et al., 2015; Jackson et al., 2013). In qualitative research, notions of therapeutic landscapes, and salutogenic environments (Gesler, 1992; Beute and Kort, 2014; Lea, 2008), concern the ability of the natural environment to provide space that promotes human wellbeing. In the media, environmental science, popular non-fiction and organisational rhetoric described above, 'nature' is presented as a tangible and knowable place of innate and unique character. These literatures present 'nature' as an environment that is universally and timelessly knowable, following a conceptualization of nature as counter to culture, of wild and unmanaged spaces that provide a (positive) contrast to urban and developed places (Oerleman, 2004).

These literatures present a clear case for the need to conserve places deemed 'natural' in order that they can be accessed by the public, and particularly children, who will experience a range of benefits from connecting with these spaces (White et al., 2017). These benefits primarily concern psychological relaxation and restoration (Hertzog and Strevey, 2008), but authors have also identified a wide range of other benefits that include wellness, increased physical activity, cognitive benefits and social benefits (Faber Taylor and Kuo, 2006; Frumkin, 2001; Popham, 2007). Childhood experiences of nature have particularly been linked with ongoing desire to seek out experiences of nature in adulthood (Ward Thompson et al., 2007; Snell et al., 2016; Ewert et al., 2005). Meanwhile experience of nature has been demonstrated to be closely linked to an

emotional response to, or conceptualised relationship with, natural spaces (Asah et al., 2017). As such, those who have frequent and ongoing contact with natural spaces are shown to be more committed to environmental stewardship, and associated pro-environmental behaviours, than those with limited contact (Thompson et al., 2008; Larson et al., 2017).

Whilst these papers present a clear justification for facilitating access to nature, the presentation of natural landscapes in juxtaposition to manmade ones, as something 'other' to socio-cultural or economic space presents a challenge for those unwilling or unable to access wild and untamed spaces (Kong et al., 1999; Milligan and Bingley,2007). An essentialist approach to nature, which sees natural spaces as having particular and innate characteristics, also risks being co-conceived with a set of ideas about what, and potentially who, belongs in these spaces - as such, the concept of nature can be used to exclude (Eden, 2001; Burns et al., 2013; Travlou, 2006). For example Tregaskis (2011), Macpherson (2008) and von Benzon (2011, 2017) describe ways in which the countryside is often managed in a way that is exclusionary for disabled people. Tregaskis (2011) and von Benzon (2011, 2017) particularly argue that this does not reflect an innate difficulty in navigating natural environments, but rather policy that fails to be inclusive.

Conversely, a post-structuralist or social constructionist approach to nature argues that nature is not an objective reality - it is not tangible, or something that we can know or somewhere we can visit. Rather, cultural geographers have argued that nature is a social construct (Cronon, 1995; Eder and Ritter, 1996; Evernden, 1992). That is to say that what we understand nature to be, and how we conceptualise our own, and broader society's relationship to nature, is entirely dependent on cultural facets such as traditions, politics and economy (Cronon 1995; Castree and Braun, 1998). Therefore 'nature' can be conceived of merely as an imaginary with a definition that is fluid and relational (Instone, 2004). A postructuralist response to much of the environmental psychology, popular inter-disciplinary non-fiction and media rhetoric, might therefore be as follows: If nature is not material, it cannot possibly offer the benefits to health, wellbeing and society claimed by much of the research. Rather, it must be engagement with material elements of these landscapes, or with people and activities within these settings, that provide these benefits. This might be with single elements, or perhaps with broader assemblages of material and immaterial phenomena (Bennett, 2009; Whatmore, 2002). On one hand, this is arguably semantics; perhaps 'nature' is useful shorthand for 'environments which include elements that might be considered through a specific socio-cultural lens to be natural'. On the other hand, in a society in which at least some people will interpret 'nature' as 'unadulterated rural wilderness' (de Grooot and van den Bern, 2003; Buijs et al., 2009; Rink, 2005), precision and clarity when we explore the benefits of spending time surrounded by trees, or away from the noise and air pollution of busy road networks, is important.

However, hybrid, more-than-human and animal geographers have sought to demonstrate that by defining nature as separate from culture and society, and from oneself, we risk denying the natural environment conceptual agency (Whatmore, 2002; Bennett, 2009). That is to say that we risk excluding particular landscapes, environments, plants and animals from our narratives of how societies have developed and function. Grosz (2005) reflects on this issue, arguing both that nature is the catalyst for culture, and therefore the ultimate producer of culture, whilst simultaneously itself dynamic and multi-faceted, forcing continual adaption of culture. Barad (2003) presents agential realism as a way of viewing the world in which matter and discourse (that is material objects and the way that they are experienced by society) are intrinsically linked, and contemporaneously coproduce one another. Barad's viewpoint moves beyond social constructivism in that it takes a performative, non-representational approach, arguing that there must be ways of knowing the world outside the rhetoric that is used to present it. Phenomena must 'exist' is some pre-discursive manner in order to be the catalyst for the language that surrounds it. As such, Barad's approach necessitates conceptualisation of nature and culture as separate phenomena, but prioritises their inextricable interrelations as culture shapes and inscribes nature. but is not responsible for the initial production of the phenomenon.

A post-nature engagement with living environments allows for a practical focus on the 'doings' of and in these spaces (Collado et al, 2016; Skar et al., 2016). Questions such as how someone feels, what they value and how they play, or even, what they learn and how they might develop, can be prioritized over preoccupation concerning the objective categorization of the space as 'natural'/positive of 'man-made'/negative. Further this approach allows for an interrogation of the precise structures, materials, activities and relationships in these spaces that benefit young people, rather than accepting a notion that 'nature' is of itself a healer, an educator or an agent for social change (Collado and Staats, 2016; Hartig, 2007; Hartig et al., 2014).

In practical terms, this might involve a revisitation of theories of child-landscape engagement which recognise the assemblage of outdoor environments as confluences of material and psychosocial phenomenon, such as environmental affordances (Gibson, 1978). According to Gibson, children will value and classify environments according to the possibilities for activities or 'affordances' that the physical space, and objects within, offer. This theory has received wide support both explicitly and implicitly in the literature, building on Nicholson's (1971) theory of 'loose part', that children value objects that can be moved, manipulated and modified (Hart 1979; Moor,

1986; King and Church, 2013). Anggard (2015) works with Barad's theory of agential realism (Barad, 2007) to extend the idea of environmental affordances in order to conceptualise the non-human presence in the environment as intra-acting with the human occupiers of the space, to contribute to the development of play activities. The concept of natural spaces as sites of activity rather than passive landscapes marries well with recent work by Taylor (2011), as it does not depend on an essentialist and unambiguous coupling of children and rurality. Rather, an affordances or non-human-agency-based approach provides an explanation for the benefits, and interests, a natural space might hold for children, without relying on moralistic or reductionist constructions of an inherent biological or psychological relationship between the two entities.

The notion of environmental affordances also marries well with the idea of embodied and emotional experiences of landscape and nature, emphasising the importance of the physicality of the environment as a place in which children feel and do, as well as a place that is formed through social discourse and understanding (Horton and Kraftl, 2006). Lefebvre (1991) argues that is it through bodily experience that we not only understand and relate to space, but also produce space. Kelley et al. (2012) and Waitt et al. (2009) draw on this notion to suggest that nature may be produced through active engagement and experience of place, such as walking. In Kelley et al.'s (2012) research the young people experienced 'nature' in outside urban spaces through a development of a personal relationship with the site, rather than through the presence of any obviously 'natural' elements in the environment. Pile and Thrift (1995), however, go on to argue that it is not only our perception of the identity of places that is formulated through our leisure experience, but also our own identities. The overriding argument in this literature is the importance of hands-on experience for building a relationship with, and an understanding of, outdoor spaces, and potentially an understanding of ourselves (Bingley, 2003). Thus, this literature demonstrates that it is not just the being-in-space of the various phenomena that create the assemblage of a natural environment, but rather the interactions between the phenomena, with particular emphasis given to the agency of the person within the landscape.

From an emancipatory standpoint, social geographers may also feel compelled to approach issues of children's access to outdoor green spaces from a hybrid perspective that recognises material agency, as this allows the voices of children to be heard. This approach allows researchers to engage with children's interests and prioritize their landscape preferences over a quantification of intrinsic environmental characteristics. Moreover, assemblages suggest that each child's perception of landscape will be different, and influenced by a broad range of material, embodied and psycho-social factors, unique to each individual child; reflective of their own identity and life experience. This paper seeks to consider the perceptions and experiences of green spaces held

by a small group of learning disabled young people in Greater Manchester, UK, in the hope of contributing a new, and valuable, perspective to the current debate.

Fieldwork

This paper is based on ethnography and creative qualitative research that took place over a year at Broadheath High School¹, a specialist secondary school in Greater Manchester educating young people with mild-moderate learning impairment². During this time, in addition to my own participation and observation, pupils were engaged as participants in a variety of creative and active ways. Almost 100 young people, aged 11-16 were involved. Different research activities were undertaken with different participants, depending on their timetable and interests. In some cases whole classes were engaged in research activities during science lessons. This took the form of creating maps, answering a survey, a class discussion, making bird feeders and doing drama.

21 pupils aged 14-16 were also engaged in research-focused projects during their horticulture classes. These involved visiting local parks and nature reserves, reflecting on the experience, and designing, and beginning to create, an onsite nature area. I also attended two school residential camps, carrying out participant observation. On the week-long camp for 11-14 year olds, attended by 48 pupils, I supported participants in filming video diaries, and followed up, about eight weeks later, with semi-structured interviews whilst watching the diaries with participants. On other occasions I accompanied classes including a group of 14-15 year olds doing outdoor activities, and a specialist weekly session for disaffected pupils at a local ecology park. I also organised small group work, consisting of games, drama and collaging, with some 12-13 year olds.

Data was analysed using a thematic, iterative approach in Nvivo 8. As far as possible all data collected was uploaded into the Nvivo programme. This included copies of transcripts, videos, digital photographs, and photographs of products such as collages, as well as activities. Copies of fieldwork notes were also uploaded into the programme. The data was read and themes identified in conjunction with the literature, and from reflection on the data itself. More detail and discussion of the methodological approach and the challenges of undertaking research with learning disabled children. is available methods-focused papers published this from research.

¹ Pseudonym used.

² Ethical approval was received from the University of Manchester

children's non-factual contributions to research and issues of power and researcher responsibility in engaging marginalised research participants.

(The term) 'Nature' is dead

The participants in this study may not be familiar with the work of Noel Castree, (Castree, 2004) however, their contributions to the research suggest that they might concur with his thesis that 'nature' cannot be considered a useful categorisation or conceptualisation when exploring their lived environmental experiences. 'Nature' was understood broadly as unspoilt, wild and rural - not an environment with which most of the urban young people felt they had any relationship, beyond perhaps a vague and imagined one. The nature that the young people imagined was at once abstract and theoretical, For the young people 'nature' was something seen on the television 'I think it's like, yeah, animals, yeah but animals that live in the wild, like camels or birds' (Elsie, aged 14) or discussed in science class: 'And like, every few minutes I think it is, more and more trees are being knocked down and more nature is being killed' (Adam, aged 13).

In some cases the young people repeated dichotomies concerning the difference between culture and nature or urban and rural. For example, William's comment: 'Well I think people put them [potted plants] there by putting them in plant pots, so I'm suggesting that there's not any nature there' (William, aged 12) reflects an understanding of nature as 'pure' and something entirely separate from human intervention. Similarly Elsie (aged 14) exclaimed: 'It wasn't naturally, the Earth didn't build it!'. As such, the young people can be seen to be conceptualising nature as both a definable and relatable entity and as something that is out of their reach, at least on an everyday basis, as urban-dwellers. It is interesting that the British young people's perception of nature as an abstract wilderness is more in line with what Eden (2001) terms a North American or Australian perception of nature, than a European one. This perhaps reflects an increased Americanization of British culture, and particularly a North American and Australian influence through children's

television. This would perhaps, be an interesting line of further research.

The dichotomy of culture and nature within the children's rhetoric is so entrenched for many of the young people, that there is even some suggestion in the young people's discourse that to access the spaces they imagine to be natural, would then render them unnatural. For example, Craig (aged 12) argued: 'A natural environment is something where wildlife and nature can be together without being attacked by, by, by things used by humans'. Similarly, Elsie's comment, above, that nature is about 'animals that live in the wild' indicates that management, and certainly domestication, would render a species no longer 'natural'. This conceptualisation of nature as 'other' was a theme throughout the discussions, present even in the discourse of young people

who did seem to have some experience of spending time in outdoor green spaces, and engaging with wildlife. For example, Andy and Dan (aged 12 and 13) spoke about having a preference for going to the woods near Andy's houses:

Nadia: And why would you like to go to the forest near your house?

Andy: because, well, there's more nature.

Nadia: Why's that good though?

Andy: Cos nature is good.

Nadia: But what does playing in nature mean? What would you actually do?

Dan: Like build a den.

Andy: And there's lots of trees so you can like maybe make a treehouse... live there maybe.

This extract reflects, not necessarily a lack of engagement with outdoor green space - the boys talk enthusiastically about going to the woods - but rather a lack of comfort or familiarity the idea of 'nature' as a category that applied to the world around them. The term is familiar to them, they repeat a cliché of 'nature is good', but the discussion suggests that they don't categorize their environment in this way. That, whilst they are in a relatively unmanaged and green space, in a woodland, the boys in fact do not categorize the woodland an environment of nature, but rather one of potential for excitement and activity. Whilst in this quote it is Andy who first uses the term 'nature', it is important to understand that in the broader context of a class discussion in which the young people had been asked to define and discuss what they thought of as nature. When asked to be more specific, and to deconstruct this term 'why's that good?' and 'what does playing in nature mean?' the boys either don't answer in a meaningful manner, replying simply: 'cos nature is good', or answer in a way that doesn't specifically address the issues of 'nature' per se, but rather focuses on the activity potential and the loose parts. So for Andy and Dan, the appeal of this environment is not the matter of it per se, but rather the affordances presented by the material landscape.

The absence of 'nature' from the children's accounts of their own environmental experience, or the rather fanciful and detached way in which it was discussed, should of course be considered within the specific context of lived experience of the research participants. Whilst the participants were a heterogeneous group of young people, they did share some characteristics that might, directly or indirectly, have some bearing on their perception of the concept of nature. Particularly the young people might be considered to identify with a number of intersecting groups typically held in the policy-focused and environmental psychology literature to be 'detached' or at risk of detachment, from 'nature'. Being young, from a large urban metropolitan area, learning disabled,

and with many participants from low income families, the young people fell into many social categories recognised as having least access to green spaces (Countryside Agency, 2005; Greenhalgh and Worpole,1995). Interestingly, this finding contrasts with Adams and Savahl (2016b:9) who found that :'[f]or the children from the low SES communities [poor communities] nature encompassed any space which possessed elements of nature'. It is of course, unclear whether this difference illustrates a difference in experience, or delineation, but does underline and support the concern expressed by Collado et al. (2016), that a common definition of nature is required in order to make comparisons between studies.

Nevertheless, for the participants in this study, the term 'nature' was not part of their normal categorising or ordering of the world, and they did not relate the term to environments with which they interacted or landscapes with which they felt they had personal relationships. This is of course concerning, if one considers 'nature' as an extant environment with unique, documented, benefits to visitors (Berto, 2014). However, even if one takes a more mainstream social science perspective, interpreting nature as fluid and relational and an ongoing process of material and social assemblages (Bennett, 2009; Whatmore, 2002), it might be concerning that the young people themselves consider nature from an essentialist perspective. Due to their own circumstances as marginalised uban-dwellers, they thus consider themselves to be removed from this environment. This perspective might be a concern for a number of reasons. Firstly, there is clear evidence that demonstrates a significant positive correlation between relationship to (perceived) nature, and feelings of a duty of care towards nature - translating as pro-environmental behaviour (Ward Thompson et al., 2008). Young people growing up without a sense of connection to spaces they perceive as 'natural' are therefore less likely to become stewards of the natural environment (Miller, 2005). Secondly, young people growing up with a sense of detachment from natural spaces are less likely to access these environments for leisure as adults (Ward Thompson et al., 2007; Snell et al., 2016). This results in an opportunity cost of the loss of potential benefits to health and wellbeing they might receive from access to these spaces (Faber Taylor and Kuo, 2006). Further there may be issues around loss of self-esteem or diminished aspiration associated

However, a hybrid understanding of nature, not as object, nor as cultural ideology, but following Barad (2003, 2007) as agentially real, might have the potential to reframe relations with landscapes, environments, plants and animals in a way that demonstrates the young peoples' real and everyday engagements with elements of 'nature', thus addressing the potential problems outlined above. Moreover, this reframing might contribute to a sense of connectedness and belonging, largely absent from the young people's own discourse, demonstrating the co-production

with perceived exclusion from a particular landscape or ecology.

and interconnectivity of the young people's use of the environments and their imaginations of them. Furthermore, if we consider the benefits of engagement with nature, not as intrinsic aspects of qualities of the place associated with its 'naturalness' but rather as a product of the sorts of activities and experiences that are typically facilitated by spaces and objects often classified as 'natural' by society, land managers and through policy, then we are in a position to explore the way in which these benefits might be gained from interaction with non-natural, less-natural, or manufactured landscapes. In so doing, one might argue that it is not wild and unbounded green space that is important to children's development or experience, but associated activities, and the affordances potentially although not routinely offered by natural spaces, such as free play and independence (Skar et al., 2016), that should be considered to be vital co-constructs with 'childhood'.

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Doing hybid spaces: discussing perception in the context of experience

In the context of 'doing', that is the research discussions that formed around activities and observation of participants in outdoor spaces, the participants were able to reflect on their immediate experiences and preferences outdoors. In general, the young people prioritised affordances of environments, such as a slope to roll or run down, or sandcastle building material. It was the ability of the environment to provide for a particular need, as directly experienced by the participant that set an environment apart as being valuable to the young person in some way. Particularly, in terms of the participants, environments were judged for their ability to provide play places or social spaces, rather than according to specific characteristics that might order them as part of the 'natural' or 'manmade' environment. Innate values such as their importance to global health ('Naure is something that creates, well it gives us Oxygen', Adam, aged 13) or aesthetics ('Some people thing that nature is art.' William, aged 12), vocalised in the classroom, were forgotten when the participants were actually 'doing' outdoors - young people did not use the same terminology when considering their experiences 'in' outdoor spaces as they had when discussing these landscapes from the distance of the classroom.

The hillslope where the young people were given free time to play, and spent time rolling and running, was also mentioned enthusiastically by other participants:

- Nadia: Oh, there you are.... Did you like going on the walk, do you remember?
- 33 Lisa: yeah.
 - Nadia: What did you like about it?
- Lisa: I liked it when we, you know the hill bit on it,
- 36 Nadia: Yeah, this bit

1 Lisa: When we rolled down it and then we were having races and all that, running

2 down it.

[Conversation with Lisa, age 12, whilst watching camp DVD]

Environmental affordances were explored with the young people through discussion of their environmental preferences for play places. The participants' preferences appeared to be for 'obvious' activities, such as play equipment that they were familiar with, managed or supervised activities or sites where play objectives were clear, such as playgrounds with fixed materials. These activities and experiences appeared to be preferred in general over spaces with mobile materials or more ambiguous activity options such as open field space or woodland. This is illustrated through the following extract from a conversation with Aaron who demonstrates a preference for playing on the fabricated structures designed for adventurous play in the woodland, rather than experimenting with the trees and wooded spaces as apparatus for play.

Aaron: I went down to the forest because there's a big adventure playground up high, they had a big rope swing.

Nadia: Ah, that was good. And was it better playing in the adventure playground, or playing in the woods ...?

Aaron: Playing in the adventure playground.

[Extract from class discussion with 12-14 year olds]

The finding that some of the young people prefer structured and unambiguous play spaces may at first appear contrary to the affordances literature which values variety in play possibilities offered by loose materials or more ambiguous 'equipment' (Gibson, 1978; Nicholson, 1971). However, for the learning disabled participants, the structure offered in the playground may offer more in the way of affordances. That is to say that the young people are familiar with the equipment and therefore know what they can do with it, and moreover, are more likely to be permitted to play with it by supervising adults as its use is known and therefore may be considered less risky (von Benzon, 2011). However, whilst there was a clear preference for these structured play spaces amongst some participants, there were others who did state a preference for unstructured outdoor spaces, particularly woodlands. The earlier extract of the discussion with Andy and Dan concerning their desire to build tens and treehouses in the woods, is one example of this. Of particular value was the potential for fantasy play in an environment in which participants could conceal themselves, and in which others could potentially be concealed.

 Whilst the thought of strangers hidden in woods is often cited as a reason that wooded areas might be avoided (Milligan and Bingley, 2007), a number of participants suggested that it was the potential for lurking strangers that led to a heightened sense of fun and playfulness in these spaces:

'I like the urr, going on the nature train and finding all the things. Lots of times I get like lost and what I have to do is stand still, then I have to urm, then I have to stop, and if I see someone else I have to lie on the floor and wit til he's gone, and when he's gone I have to get back up and start moving again.'

[From Craig's video diary, Craig, age 12]

As such threat may be considered by some of the young people to be an attribute of these spaces, presumably due the excitement this threat can engender (von Benzon, 2011). Of course, threat was also used in a more playful sense, as participants used woodland undergrowth to play games:

'The best part of the day was for me, the nature walk, because I like the forest, which I liked to hide from the teachers, which was really good because, urm, urm, because when the teacher was trying to find me, she couldn't because I was behind the tree'

[From Carl's video diary, Carl, age 13]

Whilst some studies have shown young people to value spaces deemed natural as sites of 'freedom', 'solitude' or a space to 'reflect' (Wals, 1994), there was limited vocalization of this construction of outdoor space amongst the participants. This may well reflect a more restricted experience of natural environments amongst the Broadheath High School participants, suggesting that they do not have the chance to experience outdoor environments independently or in an unstructured manner (von Benzon, 2017). This lack of independent experience may also be reflected in the absence of narrative concerning natural environments as threatening places, as found in other research on the topic (such as Kong, 2000). This lack of environmental independence may well be of far greater concern in terms of environmental justice, and in terms of child development and experience, than a general lack of contact with spaces deemed natural. It is lack of independent exploration and free play that limits young people's opportunities for risk taking, decision making and socialization (Skar et al., 2016).

The young people's discussion about their experiences of being in outdoor spaces illustrates a whole range of embodied and emotional reactions to space. Overwhelmingly these experiences are positive, suggesting excitement, playfulness and an enjoyment of the space that the outdoors

offered. These discussions were far more animated, and illustrated with reference to personal experience, specific spaces, and stories from their visits, than had been discussions surrounding the concept of 'nature' prior to our visit, illustrated in the previous section. This finding reflects work by authors such as Tapsell et al. (2001) who found that young people had a rather negative perception of London rivers, until they were taken to experience, and play in a river. At this point, through physical engagement with the landscape, the young people recognised the play value, and then the broader environmental value, of the river basin.

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What is crucial to draw from this brief discussion is that the young people are not discussing their experiences in terms of engagement with 'nature' but in terms of opportunities for adventurous play or for independence. The young people identify a variety of factors, including fixed apparatus (e.g. the hillslope, the trees), moveable parts (branches for dens) and large spaces and barriers to vision (that allow for hiding and surprising). Indeed, nature is a key environment that may provide these sorts of affordances, but outdoor green spaces are not the only sort of landscape that can be engaged with in this manner. Engaging young people in discourse around environmental experience is crucial to identifying the sorts of opportunities young people want in play and social spaces, and allowing providers to think outside nature, or alongside nature, for ways in which these needs might be met that go beyond independent access to nature spaces. This may be an important step in ensuring that young people who experience challenges to accessing wild outdoor green spaces, may not have these experiences replaced, but augmented through access to other sorts of environment that may provide some of the benefits (mental health, wellness, socialization, amongst many identified in the literature review) associated with outdoor green space.

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Concluding remarks

The classroom-based discussions illustrated the power of the concept of a culture/nature dichotomy in informing the young people's perceptions of nature, and more starkly, their own relationship to natural spaces – or lack thereof. These findings illustrate, firstly, the importance of 'doing' before discussing, in research with (learning disabled) young people. More specifically, the findings support previous work by authors such as Tapsall et al. (2001) that shows a significant shift in children's discourse concerning outdoor spaces, once children are given an opportunity for positive engagement. The embodied and emotional experiences of the young people, as they were excited, captivated, occupied, amused or scared in natural spaces, led to recognition of what these spaces might offer, in terms of a space to play, or relax or meet some other immediate need or desire. This link is illustrated by an ability to visualise, describe and explain natural spaces, underpinned by memories of 'doing' that may, following Longhurst (1997) and Lefebvre (1991),

build a clearer sense of self, in the context of building a relational identity that is intertwined with leisure experiences in natural environments.

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This paper has shown that the prevalent culture/nature dichotomy has the potential to detrimentally impact on young people's perceptions of their own relationship with nature, whilst experience leads to a more nuanced, hybrid, approach to conceptualising the value of natural spaces. Drawing on approaches, such as Barad's agential realism, to conceptualize human-nature relations that recognize nature as not only man-made but man-making, serve to break down the notion of 'nature as other' as held by the young people when discussion nature in the classroom. A hybrid approach that moves beyond a culture/nature dichotomy as an organizational structure for children's education and leisure experiences has the potential to encourage research and reflection on the elements of natural spaces, and the specific affordances, that contribute to children's wellness and development. In so doing, educators and other providers, can seek to use green spaces as effectively as possible, and to adapt other environments to offer some of these benefits.

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