

Towards an understanding of quality and inclusivity in human-environment experiences

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Abstract

As calls grow for relational approaches to nature and wellbeing research that consider reciprocity in human-environment interactions, the concept of affordances is gaining importance as a useful way of thinking about nature experiences. Affordances provide a framework to enable individualised conceptions of nature by focusing on what is functionally meaningful to people. However, affordance thinking is currently limited in its ability to help us understand how peoples' background, culture and circumstances shape interactions with nature - a critical issue with respect to inclusivity and the under-representation of some sections of society. Bourdieu's theory of practice is a well-established set of 'thinking tools' which potentially help addresses these influences. It examines how our social environment may pattern our practices, attitudes, and perceptions. In this paper, we review the various applications of affordances before providing an overview of how Bourdieu's concepts of *habitus*, *capital* and *field* can complement, and be integrated with, affordance thinking for novel applications to greenspace research. Bridging these areas of thinking will facilitate development of a more intersectional and complete understanding of nature experiences, including the quality and inclusivity of green and natural spaces.

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affordances, barriers, Bourdieu, greenspace, nature connectedness, relational, under-representation

1 | INTRODUCTION

It has recently been observed in *Geography Compass* that the Covid-19 pandemic has (re)focused attention toward the importance of natural environments to human wellbeing (Dobson, 2021; Lashua et al., 2021; Lee Ludvigsen et al., 2023). Many studies have noted how the quantity and proximity of green and natural spaces, including blue space (hereafter 'greenspaces'), may be an indicator of health and wellbeing benefits (Gascon et al., 2016; Mitchell & Popham, 2008; Van den Berg et al., 2015). Compelling evidence indicates that positive (re)alignment of physical, psychological, and social conditions is enabled through interactions with and within greenspaces (Bowler et al., 2010). Research is also now focusing on the 'quality' (e.g., aesthetics, infrastructure, amenities, and social dimensions) of greenspaces (Knobel et al., 2019) to provide a more nuanced understanding of what motivates people to visit, and how these benefits are accrued (Van Dillen et al., 2012; Zhang et al., 2017). However, it has been argued that the main approaches to greenspace planning are still dominated by a narrow conceptualisation of greenspace experiences, which view people and the environment as independent properties, and so miss the opportunity for a more relational, functional, and embodied understanding of person-environment experience (Lennon et al., 2017).

Since 2009, Natural England (2017) have used national survey data to highlight that access to, and engagement with, nature is unequal across population subgroups. Repeat cross-sectional surveys have demonstrated that ethnic minority groups, older-aged adults, those facing deprivation, and those with disabilities, visit nature less and therefore benefit less from engagement with it. Whilst there is an abundant literature on under-representation, less attention has been paid to intersectional thinking and to recognising how different aspects of identity work together to shape nature practices and experiences (see Rishbeth et al., 2022). Taken together, these observations highlight the importance of adopting a more user-centric approach to greenspace quality, that draws attention to individualised perceptions of nature and serves to hear, and amplify, marginalised voices. In this paper, we review and synthesise two areas of work—first, the idea of affordance(s) (Gibson, 1979) as opportunities or constraints in the environment in the context of a desired action or activity (Ingold, 2015) and, second, Bourdieu's (1977) work around practices, where we focus on his concepts of *habitus*, *capital* and *field*. We advocate their integration as a productive way of understanding nature experiences. We suggest that affordance thinking is a tool to capture a functionally meaningful perspective of quality perception (c.f. Kytta, 2003), while Bourdieu's ideas adds to this framing how our social environment, socialisation, and intersectional identities (i.e., gender, age, ethnicity, and social position) shape our preferences and practices regarding nature (Maton, 2012).¹ We believe that this way of thinking will be a useful approach for those involved in the planning and designing greenspace, and researchers working in the area of greenspace quality and inclusivity, because thinking with Bourdieu and Gibson enable us to focus affordances and their connection to socio-economic and cultural influences.

2 | AFFORDANCE THINKING

Gibson (1979) coined the term affordances when he talked about action and perception as part of the same cyclic process (action-perception). He argued that the perceiver makes sense of the environment in service of the possibility of acting upon it. These possibilities, or 'affordances', refer to the opportunities or constraints in the environment in the context of a desired action or activity (Ingold, 2015). For example, the sea might afford swimming, a bench affords sitting, and the aesthetic or sensory elements of place afford the renewal of cognitive resources or the alleviation of stress, that is, cognitive 'restoration' (Kaplan, 1995; Ulrich et al., 1991). Chemero (2009, p. 150) highlights their dynamic and individualised

nature when he defines affordances as 'relations between abilities to perceive and act and features of the environment'. So, the affordances of swimming, sitting or restorative potential depend on, for example, our abilities, our bodily dimensions, and individual needs and intentions (Clapham, 2011). Affordances, therefore, are a way of understanding the experiential qualities and meaningfulness of place through a functional perspective (Heft, 2010; Ingold, 2021; Kyttä, 2003).

Affordances are also said to bridge subjective-objective distinctions because they emerge from *relationships* between individuals and physical and social entities (Chemero, 2003; Gibson, 1979). These perspectives feed into an emerging trend where 'meaningfulness' demands a relational approach (Heft & Kyttä, 2006) to unlock new ways to think about how greenspaces may facilitate different human experiences and activities (Ward Thompson, 2013). In the following section, we will review the various methodological approaches and applications of affordance theory. Following this, we consider how Bourdieu's theory of practice (Bourdieu, 1977) can be usefully brought into dialogue with affordance-thinking in moving forward our understanding of people-nature relations and how we might apply this thinking to improve the planning, design and management of greenspace to benefit larger numbers of people and reduce inequalities in access to these benefits.

3 | METHODOLOGICAL APPROACHES

Affordances can help us understand the qualities of environmental features (Heft, 2010). Yet, the challenge for researchers is to connect meaningfulness to physical structures in a robust way (Kuoppa et al., 2020). In this section, we outline the varied approaches that researchers have taken to approach this challenge. Some qualitative approaches that illustrate the experiential and lived experiences of participants might be better equipped to serve Gibson's (1979) more 'individualised' original thinking. Studies founded on a positivist epistemology have a more generalised approach to affordances, where places are rated for their broad ability to promote health and wellbeing outcomes and focus on population or community-level responses. These types of approach inherently ignore the inter-individual variation in affordances of a unique location (c.f. Zhang et al., 2017). The affordance research that tends to use qualitative methods, such as interviewing or visual methods, has the benefit of being able to access practices, embodied experiences and without categories predetermined by researchers (Kuoppa et al., 2020). These more 'bottom-up' and exploratory approaches enable attention to be focused on the specific needs of a particular group (Bell et al., 2018; Lennon et al., 2017), as explored in the next section. Heft and Kyttä (2006, p. 212) have outlined the methodological flexibility of affordance theory for various research designs, including *in-situ* and *ex-situ* approaches which most often focus on observing or asking participants to describe people-environment interactions.

Observation techniques have often been deployed in this area of research to capture human-environment interactions unimpeded from the influence(s) of researchers (Han et al., 2022; Joseph & Maddock, 2016; Lynch, 1979). Adding to these approaches, the advent of public participatory geographical information systems (PPGIS) has provided a new approach to observational techniques, which enables participants to identify and map out affordances in, and across, geographical locations (e.g., Kyttä and Kahila, 2009; Raymond et al., 2016) as well as inform the redesign of physical environments (Bell et al., 2020), which have shown to be efficacious for improving well-being, neighbourhood satisfaction, and perceptions of site quality (Van den Bogerd et al. (2021). PPGIS approaches such as *SoftGIS* also offer the potential to bridge subjective vs objective distinctions by combining local 'soft' knowledge with 'hard' quantitative data (Kahila & Kyttä, 2009; Kyttä et al., 2013). Methodologically, these approaches may also allow participants to identify and name their own affordances, releasing them from the constraints of traditional survey designs (Kahila & Kyttä, 2009, p. 392). Broadly, all these methodological approaches enable *revealed* preferences by understanding the actions they actually undertake, in contrast to *stated* preferences which, as Murphy et al. (2005) suggest, are limited by hypothetical bias.

4 | AFFORDANCES IN GREENSPACE RESEARCH

Affordance focused research can inform discussions of how environments can be altered to be more supportive of, and responsive to, individual needs and circumstances. For example, Ward Thompson (2013) advocates

affordance-thinking, and its associated methodologies, to tackle health inequalities by considering how spaces are culturally laden and might provide for a wider diversity of users. Elsewhere, these discussions have included how different spaces facilitate socio-psychological motivations (Clark & Uzzell, 2002), physical activities (Cosco et al., 2010; Sando & Sandseter, 2020), and improve self-regulation (Korpela et al., 2002). Rural environments have also been found to provide more affordance opportunities for play and social functioning than urban environments because they may provide opportunities for children to create and shape their own affordances by, for example, the building of structures (Kytta, 2002).

Researchers have applied affordance-thinking to preference research which is typified by quantitative photo ranking exercises to understand people's preferences (e.g., Arriaza et al., 2004; Van Berkel and Verburg, 2014). For example, Hadavi et al. (2015) have shown that greenspace users place greater importance on affordance categories (e.g., practices such as gardening or socialising) than attributes (e.g., natural features or spatial arrangement), indicating that affordances may provide a crucial underpinning to perceptions of quality. In another example focusing people's experiences during Covid-19 lockdowns, King and Dickinson (2022) report how pockets of nearby, sometimes mundane, greenspace may provide opportunities for cognitive restoration, the ability to explore and discover, to develop skills and knowledge, and meet social needs. The research participants used a mobile messaging app to document, *in-situ*, how sites became meaningful by accommodating wellbeing motives and facilitated more connection with nature. This study not only highlights the dynamicity of affordances, especially relevant during times of social change such as the Covid-19 pandemic, but reaffirms the observation that practices and affordances are entwined and so should be considered together while managing greenspaces (Hadavi et al., 2015; King & Dickinson, 2022).

Perhaps unsurprisingly, some research has found that affordances vary by age. Studies have shown that different age groups, with varying levels of stress, tended to seek out affordances to combat stress in urban greenspace settings (Roe et al., 2017). Buttazzoni et al. (2022) utilised 'go-along interviews' as another method to capture *in-situ* perceptions in a study focusing on adolescents, urban design and mental health. The adolescents frequently described blue and greenspaces as places that provided opportunities to improve their mental health in offering a space of calmness, relaxation, restoration, and security. Affordances have also been applied in conjunction with restoration theories in outdoor settings, such as therapeutic gardens, to increase benefits to visitors (Grahm et al., 2010) and ethnographic methods have been used to understand and demonstrate how forests provide 'emotional affordances' for young people with extreme behavioural problems (Roe & Aspinall, 2011).

Affordances also relate to multiple sensory pathways, and their relative importance varies between individuals, especially those with disabilities that impair or enhance certain sensory pathways (Macpherson, 2009). Research which has focused on disabled greenspace users has noted specific needs relating to visual, auditory, or tactile stimuli, which are often understudied in comparison with visual approaches (Chawla & Heft, 2002; Mount & Cavet, 1995; Pallasmaa, 2012; Paterson, 2017). Hussein (2012), for example, applied affordances to rethink nature experiences for disabled children in a sensory garden, showing the importance of the connectivity of different behaviour settings and demonstrating a greater inclination for sensory affordances over traditional visual aesthetic elements. Elsewhere, the range of sensory affordances (Grahm & Stigsdotter, 2010) and their significance for mental health and cognitive restoration has been demonstrated, including visual, auditory and the under-studied potential of tactile sensations (Zhang et al., 2019).

4.1 | Conceptually focused approaches

In the last decade, several researchers have applied affordance-thinking to either enhance or rework, prevalent ways of thinking or to bridge inter or intra disciplinary boundaries when exploring topics related to place or sustainability research. Raymond et al. (2017) drew on affordance thinking to complement sense of place and place attachment research - which traditionally views people-place bonding as a 'slow', and socially constructed, process. Raymond et al. (2017) argue that place meanings can also be 'immediately perceived', which complements Gibson's idea of

direct perception, where meaning can be directly perceived in external objects. The authors contest that these place meanings are complemented through individual competencies and social and cultural affiliations, which in turn elevate them from *potential* to *actualised* affordances (Raymond et al., 2017). They propose that urban landscapes provide a mix of emotional, functional, and symbolic place meanings which may be either immediately perceived or socially constructed and can be captured in multi-method participatory designs (c.f. Bell et al., 2020; Raymond et al., 2016).

Affordance theory has been deemed to fit with a 'transactional' environmental psychology worldview that understands human-environment interactions as a dialogical and continual process (Altman & Rogoff, 1979). Clark and Uzzell (2002) note that, like Gibson (1979), 'the transactional paradigm sees the person and the context as coexisting and jointly contributing to the meaning and nature of the event' (p. 96). In contrast, research on place as a locus of attachment, which is founded on an 'interactionist' worldview, sees the individual and environment as independent properties where inputs from one are received in the other (Lennon et al., 2017; Raymond et al., 2017). To illustrate, behaviours performed in a geographic location produce affectively bonded 'meanings of place', while in preference and restoration research, intrinsic qualities of physical compositions and characteristics of place are seen to 'add up' to derive positive cognitive outcomes (Herzog & Strevey, 2008). Lennon et al. (2017) argues that preference research implicitly assumes that more exposure or access is an appropriate approach to greenspace and health (p. 782). Lennon et al. (2017) therefore, have stressed the need to adopt the 'transactional' perspective. They propose an affordance approach to greenspace planning, focusing on the 'connections and intersections between perceivers and the affordance dimensions of greenspace'. The tool that they suggest, 'the affordance-star', provides planners and designers with a method of understanding how the users, the objects and the contexts interact and affect one another.

Affordance-thinking has also been applied to sustainability research specific to greenspace, pro-environmental behaviour and conservation. Stoltz and Schaffer (2018), for example, argue that edible forest gardens have an important role to play in the fight against contemporary challenges such as climate change, biodiversity loss, and stress and health related disorders. They credit these gardens as providing a wealth of cognitive and social affordances through sensory dimensions and the facilitation of social interaction. Andersson and McPhearson (2018) argue that affordances are seen as providing a route to better functioning, more resilient social-ecological systems. To them, biodiversity, like other biophysical features, offer various affordances (i.e., through cognitive restoration) and propose that 'organisms have an effect on the environment they live in by creating or contributing certain attributes, abilities, and opportunities for interactions, which may serve as the basis for ecosystem services and thus human affordances' (Andersson & McPhearson, 2018, p. 2; c.f. Stokols, 2018). They link their work with concepts such as 'sense of place' to show how emotional bonds engender feelings of care and responsibility (Enqvist, 2017). In this sense, emotional motives might stimulate similar responses to endangered species by understanding their affordances. A similar application was suggested by, Lerstrup et al. (2021) who explored the affordances of small animals for young children. This is something they describe as an approach to protect terrestrial ecosystems and prevent biodiversity loss in support of the sustainable development goals through harnessing 'care'.

5 | BOURDIEUSIAN IDEAS OF PRACTICE

We have shown that affordances enable a range of applications at varying scales to understand human-nature experiences, with a focus on what is functionally meaningful. Yet, what the theory misses is the opportunity to be more sensitive and understand where these perceptions originate through a more sociological lens. In what follows, we take up this opportunity as we explore the potential to extend this relational thinking through engagement with Bourdieu's three interrelated concepts of *habitus* (unconscious ways of being and acting), *field* (social structures, governed by implicit rules, where actors compete for different types of capital), and *capital* (forms of material and non-material assets that are accrued and enable success in their relative field). These concepts together allow us to consider how practices in nature are shaped by internal and external influences, and different aspects of an

individual's identity. We now elaborate on these concepts in order to develop a more in-depth framework for applying affordance thinking to human-nature experiences.

The habitus is a concept that focuses on acting, feeling, thinking, and being. It is an internalised set of *dispositions* which we carry with us from place to place (Bourdieu, 1998). Bourdieu explains how these dispositions are patterned by a dialectic relationship between social actors and the social world. Bourdieu, somewhat opaquely, describes the habitus as a 'structured and structuring structure' (Bourdieu, 1984, p. 171). This means that the habitus is created (*structured*) by the patterns that exist in a social environment - such as the surroundings we grow up in, our socialisation in our community, and our life experiences. The habits that are borne out of these influences are durable and hard to change, which lead to regular and predictable and unconscious ways of being. In this sense, practices, and importantly inequalities, are therefore recreated or 'reproduced' while simultaneously *structuring* the composition of social structures that exist in society.

Importantly, actors are endowed with agency and therefore may break free from these predictable patterns and transgress social boundaries. The way Bourdieu conceptualises the opposing forces of structure versus agency is inherently relational and non-deterministic and helps overcome its antinomy (Bourdieu, 1984, p. 171). These social boundaries are part of the makeup of what Bourdieu calls 'fields', which are contested social spaces, such as education systems, workplaces, or the art world, where social actors and institutions compete for different forms of capital (Thompson, 2012). The amount of capital one acquires is indicative of the social position they will be able to attain and is a concept which comes in four forms: economic (financial and material assets), social (social networks and affiliations), cultural (knowledge, language, cultural preferences), and symbolic (exchangeable things representing the other forms of capital, e.g., credentials may create opportunity). Habitus can be thought of as the embodiment of cultural capital: the knowledge, the know-how and the bodily gestures required to successfully traverse the field. This is known as the 'feel for the game' (Bourdieu, 1994, p. 63)—an implicit understanding of the field and how to attain one's goals. Bourdieu often used education systems as a focus of his thinking. In an illustrative example, he compares working-class and middle-class children. The working-class, he suggests, are likely to have been inculcated with less of the requisite cultural capital (books, knowledge, culture) to succeed in school through a process of inheritance and socialisation. On the other hand, middle-class children may have had more access to such cultural capital and so embody what a good student is; their habitus is well suited to the school system and on their way, they will accrue more capital (social and cultural) which will be translated into economic capital and positions of power. In this way, cultures, class divisions and inequalities are reproduced.

5.1 | Mismatches between habitus and field

The most overt application of Bourdieu's thinking to greenspace is how participation, or lack of it (such as the exclusion of minorities by a dominant group), in greenspaces can be understood through the symbolic structures of these spaces or the mismatches between the habitus and the field. Erickson et al. (2009) and Lee and Scott (2016) conducted case studies on low visitation of African Americans in national parks. Respondents did not have the right cultural capital such as knowledge, or language and were put off from visiting national parks because these were perceived as racialised spaces. Moreover, their culturally shaped aspirations (habitus) typically did not dispose them to be interested in these spaces.

Such 'representational barriers' in outdoors spaces have been well-documented (e.g., Neal, 2002; Rishbeth et al., 2022; Ward et al., 2023) and while these barriers are perhaps more pronounced in the US (Hoover & Lim, 2021), similar themes have been identified in the UK, where the countryside has been termed the 'white landscape' underwritten by norms of whiteness, where people of colour feel out of place (Agyeman, 1990; Garland & Chakraborti, 2006; Neal & Agyeman, 2006). In these contexts, while much of the perceived otherness is implicit, the dominant group may also use tacit strategies to maintain the status quo. For example, Lee et al. (2014) analysis of hunting in the US, reveals that white males in the sport construe women and people of colour as inauthentic and

illegitimate, a tactic that Bourdieu would call *symbolic violence*. Similarly, Lee and Scott (2016) identified reports of racial conflict and implicit discrimination in a national park upon the black employees, with notable incidents of perceived exclusion of black park workers from formal events. Similarly, in the UK girls have reported avoiding some greenspaces because they have been deliberately excluded by boys who determine and regulate such spaces (Seims et al., 2022).

Conceptually, these findings are useful in highlighting how, in Bourdieu's terms, there can be a mismatch between an actor's habitus and the field. Maton (2012) explains: 'you feel or anticipate feeling awkward, out of your element, like a 'fish out of water'' (p. 56). This phenomenon may be a result of being less attuned to the rules of the field and not having a 'well-formed habitus' (see Moore, 2012, p. 100). Bourdieu and Passeron (1977), again using the illustrative examples of education, described how the working-class are less likely to attend university because they get a sense that it is 'not for the likes of me' (Maton, p. 57). As Bourdieu (1990) remarks, '...agents shape their aspirations according to concrete indices of the accessible and inaccessible, of what is and is not 'for us'' (p. 64). Phoenix et al. (2021) explore an example of this in a coastal environment, where, despite positive attitudes towards the sea, the African Americans in the study did not visit due to their habitus and perceived 'otherness' in such spaces. Other authors have found that, whilst difficult, it is possible to accrue the right capital to thrive in such spaces (Horolets et al., 2019; Uekusa, 2019) - a nod to how Bourdieu's theory may help overcome the structure-agency dilemma through capital (Maton, 2012). Browne-Yung et al. (2016) argue that in the case of socio-economic status, structural inequalities can diminish people's ability to pursue (desired) health-enhancing behaviours, a finding that seems particularly relevant for discussions of nature interactions in contexts where there may be structural constraints such as lack of opportunity, time and money (Crawford et al., 1991; Lachowycz & Jones, 2013).

6 | EXTENSION AND INTEGRATION OF BOURDIEU AND AFFORDANCES

So how can Bourdieu complement affordance thinking? On one hand, affordances deal with human-environment interactions and perceptions, where people and environments are socially and culturally constituted. On the other hand, the theory of practice deals with how perceptions and practices are patterned in a 'mutually constituting' process between habitus and field (Maton, 2012, p. 56), with the habitus being a set of dispositions (Stern, 2003). We can think of these dispositions as the product of embodied cultural capital and a perceptual dialogue with environment. The habitus and dispositions inform the way in which we seek out and perceive opportunities for action. Bourdieu used the term *dispositional* because it 'noted the potentialities inscribed in the body of agents and in the structure of the situations in which they act or, more precisely, in the relations between them' (Bourdieu, 1998, p. vii). Sterne (2003) adds to this 'the way a person walks, talks, types, plays a musical instrument, drives, her aesthetic preferences, perceived health needs, etc. (...) are expressions of habitus' (p. 375). Fayard and Weeks (2014), working in the context of organisational studies, share our view of the potential for Bourdieusian ideas to complement and augment affordance thinking by offering insight into 'how practice is patterned by social and symbolic structures' (Fayard & Weeks, 2014, p. 1). It should be noted that other scholars have developed upon, and extended Bourdieu's evolving framework (e.g., Shove & Pantzar, 2005), however for our topic of concern, we choose to extend through affordances because of the aforementioned applications to nature interactions and its salience in understanding underrepresented groups.

6.1 | Working with Bourdieu

We believe that Bourdieu's theory of practice can contribute a great deal to our understanding of inclusivity and individualised experiences of nature. Fundamentally, we propose a move beyond the use of habitus and capital to understand (in)accessibility of the field of greenspaces and nature experiences, toward a more sensitive understanding of

how *dispositions* impact upon the perceptions (and preferences) for natural environments through affordances. This also includes the multi-dimensional way in which different aspects of our identity may shape our engagement and conceptually link Bourdieusian and Gibsonian frameworks. We touched on how a social field, such as a greenspace, that is dominated by one group may result in the exclusion of another. Looking at it through the lens of incompatible capital and field results in what Maton (2012) describes as a 'fish out of water'. But it might also be that this incompatibility distorts perceptions of the world, or that perception and preference is influenced by socio-demographic background (Buijs et al., 2009; Dramstad et al., 2006; Natori & Chenoweth, 2008; Van Zanten et al., 2014), cultural differences (Gosal et al., 2021) or identity processes (Scott et al., 2009).

The culmination of Bourdieu's empirical work led him to suggest that the habitus is a systematic structure that comprises a system of dispositions that generate perceptions (Bourdieu, 1990, p. 53) and so encompassing influences of culture and personal circumstance. When we talk about 'mismatches', our discussion might well be informed by literature indicating the symptoms of such incongruence. For example, evidence indicates that there is a lack of agreement between self-reported perceptions of greenspace accessibility and quantitative assessments of distance. Macintyre et al. (2008), for example, illustrated that residents in Glasgow perceived their local greenspace to be further away than it was, which they suggest is due to perceptions being socially patterned. They argue that that parks may hold some sort of 'symbolic proximity' based on perceptions of whether the park is a place for them. Jones et al. (2009) also highlighted such mismatches in a study in Bristol. They also suggest that residents of more deprived areas may not see greenspaces as being provided for them. It seems, in these situations, that a mismatch between field and habitus might make these places seem further away. Clearly, more exploration is needed, but thinking with Bourdieu allows us to appreciate other influences that take account of individuals lived reality beyond objective assessments. These perspectives might cautiously be applied to other contexts where the *perceived* is incongruent with material assessments. Studies looking at species richness and abundance have found that the public weakly assess the biodiversity of natural settings (Dallimer et al., 2012; Rall et al., 2017). These 'incorrect' visual assessments are likely dependent on knowledge (Coldwell & Evans, 2018; Dallimer et al., 2012), a key aspect of cultural capital (Moore, 2012). Following this conceptual framing, research investigating perceptual variations of outdoor environments has shown that, based on their background, people might perceive the landscape differently. For example, Dupont et al. (2015) found there was considerable variation between the way that 'expert' and laypeople observed the pictures of landscapes presented to them, leading the authors to claim that level of expertise results in a 'literally different' perception of landscape (p. 68).

It is in such examples that we see the potential for synthesis between Bourdieu's ideas and affordance thinking. Whilst affordance perspectives recognise that affordances emerge between an individual's characteristics and the opportunities in the environment, those studies adopting a Bourdieusian framing show the importance of culture and cultural context within this. Taking the example of race and national parks, Lee and Scott (2016) noted that the park's attractions (potential affordances) were not culturally appropriate. For example, there was no reference or artifacts telling the story of slavery at the park, which many of the African Americans stated would have interested them. Also, Horolets et al. (2019) focusing on rural-to-urban migrants in a multi-country study found that one of the dampening effects on nature visitation was the unavailability of affordances that migrants had previously accessed in their home nation. This relates to the lack of availability or practice-inferred affordances that emerged from prior relationships and took on an importance.

As we touched upon earlier, affordances may also emerge from new practices, and be found in unexpected places (King & Dickinson, 2022). This idea links to the level of 'place literacy' and knowledge which can enable new emotional, cognitive, and behavioural bonds (Markuszewska & Ilovan, 2022). Similarly, these affordances, or the possibility of new affordances might also simultaneously be dependent on different aspects of our identity and the accumulation of different capital. Horolets et al. (2019) also demonstrated that migrants use several strategies to adapt and make use of the environments such as seeking continuity and finding substitutes (seeking known or replacement affordances through their nature-related habitus and embodied cultural capital), ascribing new meanings to natural environments (accruing cultural capital relevant to the field), and campaigning for redesigned environments to meet their needs (utilising social capital).

These findings permit us to set our focus deeper than singular explanatory variables such as income-level, culture, or ethnicity, to a more characterful and nuanced understanding. What people bring with them and develop are a set of capitals, with varying levels, that equip them to navigate specific fields. This chimes with calls for more intersectional thinking. In a recent evidence review produced for Natural England, Rishbeth et al. (2022) state that most studies focus on group-specific constraints such socio-economic, access and mobility, and representational barriers to greenspace, when in fact these barriers are shared between groups. They argue for more than cross-cutting issues relating to social class and ethnicity but also the overlooked intersections of 'age and class' or 'ethnicity and disability' (Rishbeth et al., 2022, p. 16). Although Bourdieu preceded the eminent body of work on intersectionality by Crenshaw (1991) and other authors from the black feminist movement, he did understand how intersections of class and, for example, ethnicity interact. Wallace (2017, p. 910) articulates that Bourdieu's (1962) early work stresses the intersections of ethnicity and class across time and space, and the limitations of focusing on singular variables.

The 'mutually constitutive' nature of intersectionality (Hopkins, 2019) also resonates with research demonstrating how capitals interact with and amplify each other to influence people's ability to pursue healthy lifestyles (Veenstra & Abel, 2019). This applicability has not escaped other social scientists, with some advocating habitus as a salient way of 'operationalising intersectionality' (Kilvington-Dowd & Robertson, 2020; and see Reay, 2004) or using intersectional thinking to discriminate how social affordances are perceived (Paxton et al., 2019). Recent studies have also turned a spotlight onto the interrelated nature of capitals and their effect on greenspace practices. Cronin de Chavez et al. (2019) consider under-representation in urban greenspaces in multi-ethnic, low-income areas and, although using a different lexicon to Bourdieu, note the significance of knowledge (about local greenspaces) and personal constraints (time, economic resources) in influencing visitation. The authors suggest collective action as one remedy to 'reclaim' such spaces, and in doing so, they indicate the relationship between social capital, structural barriers, and individual determinants. Complementary research elsewhere has also indicated that social capital, in particular, could play a crucial role of differential access to community resources for promoting or constraining health (Carpiano, 2007).

It would seem from the above examples that, in many cases, researchers are capturing elements that can be integrated towards an understanding of quality and inclusivity in human-environment experiences. Instead, though, of thinking of access and perceptions of quality as separate it is productive to recognise that they interact and affect each other. By thinking with Bourdieu and Gibson, researchers and practitioners might be more focused upon how different groups perceive different affordances and the reasons why. This provides a basis for more effective programmes encouraging nature experiences and seeking to reduce inequalities.

7 | CONCLUSION

We have considered how affordance thinking has been applied in applications of greenspace research and in capturing various aspects of a meaningful nature experience. Affordance thinking, with its methodological dynamicity, and its pivot toward individualised experiences of nature and the functionality of the environment seems particularly well-suited for research contexts addressing inclusivity. This paper demonstrates the value of affordance theory for understanding the tremendous variation (between individuals and locations) in how people assess the functions and values of places, and thus value them. Research methods that reveal these actual preferences rather than using a priori assumptions are critical for assessing these values. However, affordances—given the focus on individual-environmental level—are not easily stretched to include how external influences shape nature experiences. Here, we make a novel contribution by integrating affordances with Bourdieu's complementary sociological theory of practice that enables more relational thinking to be applied to individual-environment inter-actions. Together, these approaches give an insight into not only how quality of outdoor spaces is perceived and constructed in relation to their individual, context-specific, affordances, but how culture, personal circumstances, and intersectional identities influence how people perceive and access affordances. This conceptual development has fruitful applications—most specifically in relation to recent attempts to design, manage and enhance outdoor spaces to be more accessible and inclusive to a broader cross-section of society, particularly those who are under-represented in green and natural spaces.

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ENDNOTE

- ¹ Whilst our paper foregrounds human experience(s) in relation to greenspaces, it is important to note the growing attention paid within geography (and beyond) to post-human thinking which is beyond the scope of this paper. See Andrews (2019) for a useful review, and see Dobson (2021) for an exploration of how humans and their wellbeing are produced through (inter)relations with a range of actors.

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