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Nature Connection

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Abstract

Nature connection is the diverse ways in which meaningful experiences are had with nature and that are claimed to have positive impacts on the wellbeing of people and the environment. Definitions range holistically across mind, body and emotional engagements. Activities in nature are understood variously as taking place everywhere or only in wild settings. There is a long history of modern society's apparent disconnection from nature with related counter movements. Latterly, there has been a renaissance of the urgent need to understand and value humans as natural in order to tackle urgent environmental crises on a global scale. As a result, research to better understand what has become known as nature connectedness has grown rapidly as have instruments to measure the quality and impact of connections. Educational practices are increasingly alert to the need to promote nature connectedness with significant changes in policy and practice to encourage experiences in what is perceived as nature. Many of the environmental education themes in this book are currently being influenced by the trends explored in this chapter.

Key words

Nature connection; human nature relations; environmental ethics.

'Nature' is a problematic term. Castree (2005) identifies four significant epistemic communities that operate around different understandings of what nature is. There are, he claims, many others. When talking about 'nature', these communities are not typically aware that they are talking about significantly different ideas. When 'connection' tangles with 'nature' this only adds to the problems. 'Nature connection' implies that nature is elsewhere waiting for a connection to be made. Experience and understanding of nature take place in a cultural context, which impacts on societal and individual conceptions and understandings of nature connection. Particularly in the western world, modern, urban lifestyles have lost touch with nature (Soga & Gaston, 2016). Knowledge of or feelings for landscapes, wildlife and a sense of place shared with other species has markedly declined (Natural England, 2020). Whilst nature as something 'other' is, in one sense true, nature can also be understood as inclusive of everything, not 'other' than humans, as humans are one of these 'others' whether we are in touch with ecological systems and wildlife or not. We are a part of nature not apart from nature. Some of our current problems with our relationships within nature lie with the epistemic community that constructs nature in this othered way. Writings on nature connection are helpful so long as they are read through a lens that understands the connection as the awareness of, and practices in, particular qualities of connection, for example certain feelings, actions, understandings, rather than defining humans as outside of nature. It is the perception of connection with nature that is in debate rather than our place in nature as such. This is how we approach this topic.

Since the enlightenment and the industrial revolution, humans in developed modern societies tend to understand themselves as managers of or rulers over nature, erecting a hierarchy of nature with humans at the top of the pyramid rather than a 'flat' ecology of interrelated beings. When discussing the now largely urbanised consumer world, it is claimed that certain qualities of nature connection benefit human health and wellbeing. The importance of nature for wellbeing is international and reflected in the United Nations Sustainable Development Goals (Goal 3) (Chandra & Chand, 2018; Sharma-Brymer & Brymer, 2019). Various authors illustrate how certain benign natural settings provide restoration, escape, perspective, appreciation, confidence, self-efficacy and that 'nature' is a therapeutic environment for certain communities (for example, see Brymer, Freeman & Richardson, 2019). This perspective largely ignores the essential natural benefits of water, air, food, shelter and all the resources for the modern way of life also provided as ecosystem services (Millennium Ecosystem Assessment, 2005) but which could be seen as an aspect of 'connection'. In some traditional societies, people remain more obviously in connection with nature, immediately dependent on it for their water, food and shelter as well as their livelihoods. In both contexts, nature can also be harsh as well as benign, causing earthquake, drought, flood, fire and famine. Even when the wellbeing benefits to humans in a modern society are considered in isolation, they are typically experienced by a privileged few. The benefits are exclusive, leaving many people distanced, unaware or unable to access nature as a place of wellbeing (Barry, 1999).

Definitions of Nature Connection

A range of terms are used for nature connection including connection to nature and connectedness to nature. These terms have been defined in several studies, with perspectives varying from interaction and dependence on nature (Steward et al., 2017) to awareness of the interrelatedness between an individual and the natural world (Zysltra et al., 2014, Lumber et al., 2017, Ives et al., 2017). Fundamental to this is the perception of an individual's relationship with nature (Restall & Conrad, 2015), ranging from inclusion or interconnectedness with nature versus othering of nature, and the ways that a relationship

with nature, or boundaries between humans and nature arise. Nature connection fundamentally refers to feelings for and beliefs about one's place in and relationships with nature.

For those in education, connection to nature may relate to how we learn about the world around us, and for those in environmental education, how we learn in, about, and for nature. Among environmentalists are concerns that experience of the natural world, and a connection to it, are vital to develop an ethos of care, and pro-environmental behaviours. The biophilia hypothesis (Kellert, 1993) suggests we have an innate need to connect with nature. There is interest in how connection to nature can provide a restorative environment which calms and soothes to support mental health and wellbeing. Further, natural environments can be good for physical health, through promoting recuperation, or the opportunity nature provides for exercise. Planners and architects take an interest in how urban environments can connect to nature through design of buildings and urban spaces to ensure that greenspace and blue space are available, accessible, and inviting. Some of these perspectives focus on material nature as an object to connect with. Others interpret nature as subjective so that the connection is two way, whilst others focus on the relationships between humans and the other than human beings and natural processes that we experience. Connection is achieved through affective engagement (activities involving all senses), cognitive engagement (recognising, identifying, naming) and physical engagement (touching, being in nature, activity, using or making). Nature connection thus refers to knowledge of and about nature, emotional feelings towards nature and evoked by nature, experiences of nature, a sense of dependency on nature, and an ethos of care and pro-environmental behaviour (Martin et al., 2020).

What and Where is Nature?

Nature has many meanings many of which infer a location. Rather than placing nature elsewhere, conceptualisations of nature connection typically frame nature as everywhere, in wide open spaces, in the air, below our feet, in our gardens, in our homes, on our skin and in our guts and in cracks within buildings. It is a vast array of micro and macroscopic processes, things and beings. As Castree (2014) points out, it is sometimes perceived as including human beings, sometimes not. As well as being material, it is also perceived as a complex set of dynamic processes and relationships that unfold at widely different places in time. Nature is considered as present even when we cannot see, touch or smell it and it can be a friend, a foe, a healer and destroyer. Underlying this paradigm shift is the perception that humans are part of an ecosystem, a system that is essential to all life on earth. It is claimed that understanding the interconnections within this system and acknowledging and valuing that 'we are nature' will help secure a positive future for all and realise a holistic wellbeing which includes individual, collective and planetary needs – a one health approach (Brymer, Freeman & Richardson, 2019).

Why Does it Matter?

The culture and history of the current dominant western world view shapes conceptualisations of natural environments, the personal, social, and economic value associated with them, and subsequently the use of and relationship with this nature (Nash 1982; Callicot & Nelson, 1998). For many cultures in modern times, industrialisation underpinned the growing idea of humans as other than nature, a perception of a separation from nature that has accelerated to its current height. As such the relationship has turned from one of reciprocity to one of production and consumption (Brody, 2001). In the 19th century, in England and elsewhere, counter movements began. Figureheads such as John Ruskin

identified what they considered to be a loss of knowledge of nature that was taking place as machines replaced hand craft. The Craft Movement sought to value and protect this understanding of the human relationship with natural things as well as their transformation into useful objects for society. The Romantic Movement transformed the appreciation of nature from a utilitarian subsistence to a secular religious view. As Ruskin recognised, the shift from a hands-on, rural way of life for many people to an urban, industrial one resulted in a loss of a particular embodied physical and emotional as well as conceptual knowledge of certain ways of engagement with nature, especially farming, quarrying, mining, fishing and forestry. This separation from certain ways of engagement with nature in these modernising societies was associated with a kind and scale of human activity that resulted in increasing levels of environmental harm for all people globally that, until now, have gone largely unnoticed. Those in modern urban societies who have re-engaged with nature as rural landscapes and wildlife habitats in their leisure time have done so through different outdoor activities leading to different sets of embodied and conceptual knowledge. These activities and people are excluded from large tracts of the landscape and so from any meaningful engagement in the decisions about its management. Nevertheless, this knowledge has informed the growing conservation movements of recent years with large and increasingly politically active memberships. Alongside the actions of this environmental lobby, informal and formal education accelerated by social media has developed an increasingly informed citizenship globally about a range of environmental issues creating a constituency that has empowered a growing number of politicians to act.

How to Connect: Meaning Making and Pathways to Nature Connection

Meaning-making is considered crucial in forming a deep understanding of the environment. A person comes to know and construct their connection to nature by direct (passive and active) and indirect ways of experiencing. Visually perceiving is direct and active and senses of touch, taste and smell are considered passive (Tuan 1977). Direct experience allows one to know something intimately. Symbolising nature in language and art is indirect. It allows for conceptual knowing and meaning. For meaning-making to take place interaction, externalisation, communication and clarification, that is both direct and indirect ways of experiencing, are required. People also need to have the freedom, confidence and sometimes encouragement and support to make their own personal meaning of nature and their relationship to it. In doing so this can lead to a deep and enduring sense of wellbeing (Freeman & Akhurst, 2018; Freeman et al. 2016). It should also be acknowledged that experiencing and understanding things takes place in a cultural context. Conceptions and understandings of nature connection should not be universalised. Cultural variations should be celebrated.

Educational approaches to understanding and connection are successful in many ways but can alienate some people that may feel they don't have the intellect. Because it can objectify that which is studied, science can create some level of separateness between humans and nature. It can perpetuate the myth of nature as other. When an educational nature trail was compared to a 'creativity in nature' competition with children, higher nature connection scores resulted from the creative approach (Bruni et al., 2015). Creative and expressive methods such as writing, poetry, art, and dance are all powerful and very personal ways of connecting, expressing connection and sharing it that in turn can engage others in nature. They also allow for differences in and personalisation of interpretation and meaning. It is through the arts, particularly in the Romantic era, that wider society, beyond scientists, changed the conception of nature.

Recent research from the UK, that followed the normative understanding of nature and connection (Lumber et al., 2017), identified five pathways to nature connection: contact, emotion, compassion, meaning and beauty. In nature, there are indications that it is the active and dynamic components such as wild weather or busy animals that are best at triggering one of more of these pathways (Harvey et al., 2020). Connecting to nature enables a visceral experience through which people experience sensory engagement with nature through touch, smell, sight, sound, and potentially taste. Through time in nature, people recognise, identify and potentially name what they see. Such cognitive connection can go on to involve learning what nature can be used for (not necessarily in a destructive way), or how it can be nurtured. Observation, appreciation, enjoyment, fascination are all aspects of connecting to nature, through which bonding with a specific place, or a type of place (e.g., a specific wood, or trees and woods in general) may develop. Through knowledge and familiarity an emotional attachment may develop, and subsequently an ethos of care, a sense of responsibility. A sense of a relationship between the individual and the natural world may arise. There may be appreciation of beauty, or appreciation of the role of nature in supporting our human existence. Pleasure may occur simply from the opportunities arising for soft fascination, or from the opportunity to exercise, movement. These are optimistic findings that, nevertheless, should be understood in the context of a concept of nature that constructs it as other than human, this despite the declared intention of restoring the idea of humans as nature. It is set in a moment in time in a particular and fast changing culture. Despite this criticism, and expressed through a different conceptual lens, these insights might have widespread applications, especially in modern urban societies.

Impacts of Connection

Wellbeing as a concept is typically applied to people. Considerable recent research has linked time in what are considered natural settings and activities in the outdoors to benefits to physical and mental wellbeing. Even small amounts of time in highly managed parks considered to be less ‘natural’ have been shown to be beneficial. Other research indicates that both the quality of time in nature and the quantity of time in nature progressively over the life course are predictors of the adoption of pro-environmental behaviours and, presumably, values. More work needs to be done on exactly what experiences encourage the best outcomes for nature or what these outcomes are exactly. Those who advocate for an engagement or relationship with nature rather than a connection to nature are proposing that the relationship is two way; that nature is both agentic in the relationship and of intrinsic value in and of itself (Plumwood, 2001). As such, an equitable relationship would be one in which the wellbeing, or flourishing, of nature would be of equal concern as the wellbeing of people.

Eudaimonic wellbeing can result in people feeling that natural environments are relaxing or restorative, or even a refuge from normal daily life. With frequent visits to the same place, or similar types of places, and observation of changes over time, there may be a greater relationship and understanding of environmental issues, either observed in person or learned of in other parts of the world. Natural places may also be the space in which key experiences, whether in terms of learning, emotion, or skills and actions, take place. A ‘leave more trace’ approach has been proposed (Loynes, 2018), that is traces of the right kind, rather than a ‘leave no trace’ one. A ‘more trace’ approach argues that humans need to actively engage in positive and restorative impacts on nature, to turn the tide reversing past harms. The evidence already suggests that nature connection supports personal shifts, in consumption for example, and social changes, in volunteering on environmental projects and engagement in local politics.

There are signs of change at economic and political level as well. Organisations as well as individuals are showing signs of adopting and adapting to the environmental emergency. Many local councils around the world have declared climate emergencies. They are holding people's assemblies to determine how they can contribute to reducing carbon to net zero. The outdoor clothing company, Patagonia, for example seeks to leave nature restored as a result of its manufacturing rather than depleted; impacts judged a net positive rather than a minimalised negative. As such it would seem vital to encourage nature connections that lead to pro-environmental behaviours targeted at the right impacts to make the biggest differences, both in local landscapes and global economics. Elsewhere, in rural areas, developments are underway to build new land-based economies that seek to offer a place-responsive relationship through economic activity that is resilient and that provides meaningful work sustaining healthy communities and habitats.

Measuring Nature Connectedness

Assessing society's, or individual's, connection to nature is a challenge. England's Monitoring Engagement with the Natural Environment (MENE) survey is a weekly household-based survey running since 2009, (with a subset of data on children's engagement with nature since 2013). It focusses on measuring time spent in a natural environment, but also captures information on other activities which engage people with nature (e.g., gardening) and pro-environmental behaviours (e.g., recycling). It confirms that owning a dog encourages people to get into nature on a daily basis, and that time spent in nature corresponds to better self-reported health. But it also highlights how many people are not getting much time in nature each day, and this depends on age, ethnicity, socio-economic status and car ownership (as people tend to access greenspaces by car, rather than visit local greenspaces). For young people, many visits are to urban greenspaces, accompanied by an adult. It shows the role schools can play in introducing children to nature and the outdoors (Natural England, 2020).

However, connection to nature is more than time spent in nature, and MENE data suggested that people visit natural environments to engage in a range of activities (exercise, socialising) which do not necessarily relate to connecting with nature. There are many measurement scales (Bragg et al., 2013) including the Connectedness to Nature Scale, Nature Relatedness Scale, Inclusion of Nature with Self, Environmental Identity Scale, Emotional Affinity to Nature, Connection to Nature Index and the most recently developed Nature Connection Index which is shorter and suitable for both adults and children. Their names alone indicate the different approaches to measuring connection to nature. Most have been developed for use by adults, but some have been adapted for use with children. Other less direct ways to measure could include evidence of pro-environmental behaviours, choices of subjects for study, careers, and visitor numbers to openly accessible landscapes.

Nature Connectedness and Society

Industrial practices are also changing providing societies globally with the chance to rethink economics, work, and rural and urban landscapes. The concepts of sustainable prosperity (Jackson, 2017) and doughnut economics (Raworth, 2017), models of a possible sustainable and flourishing society, are spreading, highlighting a shift away from gross domestic product as the sole measure of prosperity, and replacing it with holistic wellbeing. The necessity to choose technologies that reduce impact, lifestyles that consume less and land management that both mitigates and adapts to the anthropogenic consequences of human activity, biodiversity loss, floods, droughts, fires, etc, are rising up the political agenda in

many nations (Sharma-Brymer & Brymer, 2019). The concept of nature connection has arisen within this context and can be understood as an indicator of a desire for change and a quest for actions to bring this about. As indicated above, the term 'nature connection' can imply that humans are in some ways already disconnected. In our view it is not that humans are unplugged from nature. Far from it, the damage to the environment and its consequences for many species, including humans, are increasing. The 'connection' is, on balance, a harmful one that is getting worse. In this situation, it appears humans have forgotten that we are nature. Neither are humans active agents whilst nature is a passive resource. Both are active, interrelated and increasingly re-interpreted by those living within the dominant world view as having intrinsic value and so an ethical standing.

Nature Connectedness and Higher Education

Nature connection can contribute to two significant areas in higher education (HE): a growing concern that all students, whatever their chosen subject of study, should receive education relating to sustainable development; and concerns regarding student wellbeing. Outdoor and environmental education seem well placed to encourage nature connection amongst more young people and, through them, their families and the families of the next generation. In higher education institutions, outdoor learning appears more limited to certain subjects, however there is a growing interest in all students receiving some education on 'sustainability', and what this can mean across all disciplines and in lifestyles. Movements to make higher education institutions more sustainable include tracing how sustainability issues are taught in courses across universities. Some argue that education for sustainable development should be embedded across all courses in higher education institutions (e.g., education for sustainable development (ESD); Sterling, 2013). This includes an understanding and appreciation of relationship with, and impact on, the natural world, as well as how humans can adapt and mitigate such impacts in the future. Our connection to nature is inherent in these debates. Practice worldwide has begun to shift from a focus on an anthropocentric personal development curriculum to a place responsiveness approach that pays attention to other than humans and natural processes.

As noted earlier in this chapter, nature connection can also be of significance when we consider wellbeing. Student wellbeing at HE institutions is of growing concern. There is awareness of a mental health crisis in young people (Bewick and Stallman, 2018), some of which is addressed while children are of school age, but some of which develop further as children leave home and transition to adulthood, often via their experiences in the HE sector. An increasing number of students arrive at HE institutions with existing medical conditions relating to mental health and wellbeing, and some go on to develop issues during this transition time from childhood to becoming independent young adults. Reports of mental illness or distress among university students are high (Bewick & Stallman, 2018), which doubled during Covid-19 lockdown in March/ April 2020 in the UK (Kwong et al., 2020) and being a university student is a risk factor for young people (Bu, Steptoe & Fancourt, 2020). Institutions are increasing their pastoral care, and support for student wellbeing through enhanced medical, particularly counselling, services. A holistic approach, which includes exercise, social support, and time in nature, is increasingly recommended (Universities UK, 2018).

Nature Connectedness and Schools

Many pedagogical developments covered more fully throughout this book have emerged. In some ways, schools, despite the challenges of curricular, testing and classrooms,

are an ideal institution as they reach all young people of a generation. Some teachers report an enthusiasm for the potential of nature to enrich classroom-based work and provide other benefits such as wellbeing, an expectation increasingly falling at their door. However, many teachers come from a generation who have lost any familiarity with or valuing of time outdoors. A major intervention by higher education to develop new and existing teachers is called for.

In England, the government has recognised this calling for progressive outdoor experiences for all young people of the current generation. Practice is more common in primary schools, with outdoor free play compulsory in early years and lower primary classes. As children grow, opportunities for outdoor learning diverge, with some focussing on science and geography, others focussing on personal experiences, and building of confidence, resilience and self-esteem.

Several countries, including Singapore, Taiwan, Scotland and Denmark have established outdoor learning, education for sustainability and environmental education as core curriculum throughout the system. Singapore has established a curriculum of outdoor learning with progressive experiences embedded throughout the primary and early secondary years. In other countries with indigenous communities, traditional world views and knowledge are returning to the curricula of schools. In some places, such as New Zealand, this increasingly informs the content and processes of teaching and learning in all schools.

In other ways, schools becoming the primary agents for experiences in nature can also be seen as a remedial approach. We would argue that it is the family and the community that should be encouraging time and activity outdoors as part of our cultural heritage and to contribute to our wellbeing and happiness. Strategies that encourage schools to engage with families and the community are called for. In time this could allow schools to share the responsibility offering experiences in nature that are best suited to the purposes of education in the knowledge that communities will be playing their part. If this is to be possible then access to nature in all communities rural and urban is a priority.

Summary

Outdoor Education and Environmental Education are inextricably linked with nature, as activities involve learning in, for and about nature. While nature connection is not necessarily the main aim of outdoor or environmental education, it is to be hoped that a by-product of the activities will include a growing sense of what nature is, and appreciation for nature. Connection can be achieved in many ways, through sensory, cognitive, and psychological processes. This chapter has described the many ways in which nature connection can bring benefits to people as they participate in a broad variety of activities, with each connecting in different ways depending on individual and cultural life stories, personalities and preferences.

Reflective questions

1. How would you describe your nature connection?
2. What differences does nature connectedness make to your quality of life?
3. What strategies for connecting people with nature have you experienced, or have you heard of?
4. Does spending time in nature affect your pro-environmental and conservation behaviours?

5. What do you think are the challenges in society that nature connection could help us to address?

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