



Contents lists available at ScienceDirect

Journal of Environmental Management

journal homepage: www.elsevier.com/locate/jenvman

Review

A literature review of connectedness to nature and its potential for environmental management

Brian Restall*, Elisabeth Conrad

Institute of Earth Systems, University of Malta, Msida, Malta

ARTICLE INFO

Article history:

Received 31 July 2014

Received in revised form

22 April 2015

Accepted 17 May 2015

Available online xxx

Keywords:

Literature review

Connectedness to nature

Nature relatedness

Environmental management

Spatial mapping

ABSTRACT

Understanding how people's relationships with nature form, how they influence personal values and attitudes, and what behavioural implications they may have could provide more insight into how connectedness to nature (CNT) can effectively contribute to environmental management goals. This paper undertakes a review of literature published over the past decade (2002–2011) on SCOPUS; and describes the current state of knowledge regarding CNT, assesses any efforts towards the spatial mapping of CNT for environmental management, and identifies measures of CNT defined in the broader literature. This review suggests that there is quite some overlap in the literature on CNT concepts, and that more effort needs to be made towards multi-disciplinary research which explores how CNT can be useful to environmental planning and conservation research on the field. It also further corroborates the need and relevance of applying more social and affective strategies to promote conservation behaviour. The main progress in CNT theory seems to have been made in the development of measurement tools, and it is clear that there is a strong convergent validity amongst the different measures due to their similarity, and functional associations. Further efforts towards the exploration of multi-dimensional measures is recommended since they consistently stand out as showing better results. The geographic visualisation of CNT constructs is another area of research that deserves attention since it can provide a unique point of view towards guiding participatory protected area planning and management.

© 2015 Elsevier Ltd. All rights reserved.

A substantial body of literature has been published in the social and behavioural sciences over the last three decades examining the human–nature relationship (e.g. Degenhardt, 2002; Schultz, 2001a,b, 2002; Mayer and Frantz, 2004; Orr, 2004; Nisbet et al., 2009). The study of connectedness to nature (CNT) is primarily concerned with understanding how people identify themselves with the natural environment and the relationships they form with nature. The literature devoted to people–nature relationships has made valuable contributions to environmental psychology; however the breadth and variety of CNT literature can also present challenges to a comprehensive understanding of the field. This is exemplified by the multiplicity of terms used for this construct,

with CNT also referred to in the literature as nature connectedness (Schultz, 2002), nature relatedness (Nisbet et al., 2009), love and care for nature (Perkins, 2010), connectivity with nature (Dutcher et al., 2007), emotional affinity toward nature (Kals et al., 1999), dispositional empathy with nature (Tam, 2013a,b,c) or inclusion of nature in the self (Schultz, 2001a,b). Given this breadth of terms, there is substantial scope for literature reviews of existing academic research in the subject area, in order to highlight key elements and trends in the field.

CNT theory suggests that a relationship with the natural world directly affects people's physical, mental, and overall wellbeing due to benefits gained by increased exposure to nature and positive experiences in the natural world (Tauber, 2012). Direct experiences with natural settings seem to have very profound emotional effects on people (Louv, 2008), and a stronger commitment to nature could lead to higher human interest in environmental protection (Perkins, 2010). Consequently, understanding how people's relationships with nature form, how they influence personal values

* Corresponding author.

E-mail address: brian.restall@pim.com.mt (B. Restall).

and attitudes, how they can be measured and what behavioural implications they may have, could provide more insight into how CNT has the potential to effectively help meet conservation goals. Better insight into people and their relationships with nature has the potential to enhance our ability to effectively meet conservation goals. Understanding how these relationships form, how they influence personal values and attitudes, and what behavioural implications they may have remains critical. The ability to link CNT concepts to geographically defined spaces could also potentially be useful for purposes of environmental management, and for conservation planning in particular.

Given the above, this paper provides a literature review of CNT academic literature over the past decade (2001–2011), with three main objectives: a) to describe the current state of knowledge regarding CNT; b) to assess any efforts towards the spatial mapping of CNT for environmental management and c) to identify measures of CNT defined in the literature.

1. Connectedness to nature and its relevance to environmental management

Various authors have suggested that humans were in the past more physically and psychologically connected to nature than people living in industrialised nations today (Melson, 2001; Shepard, 1993, 1996). This implies a potential disconnect from the natural environment (Axelrod and Suedfeld, 1995; Beck and Katcher, 1996, Katcher and Beck, 1987) primarily due to the displacement of people into cities which seems to insulate us from outdoor natural environmental stimuli (Stilgoe, 2001). Clearly human pressures in modern society, coupled with technological improvements and increased urbanisation, could also be affecting people's ability to connect with nature in their daily lives, potentially creating a nature-disconnect which is thought to have an impact on our empathy for other species and our desire to help conservation efforts (Louv, 2008; Kellert, 1997; Conn, 1998). This could also be leading to a decline in people's connectedness across generations and diminishing our experience in and with the natural world (Kahn et al., 2009). Some even argue that the relationship between people and the natural world is in fact broken, and that this is leading to a failure to value the very same systems that keep us alive (Monbiot, 2013). Consequently understanding how a sense of connection with nature can impact upon people's decisions to protect nature is important if we wish to protect biodiversity, and ultimately this same sense of connectedness to nature (Howard, 1997; Schultz, 2000).

Wilson (1984) claims that humans have an innate kinship for nature which he terms biophilia. This understanding of our sense of inclusion in nature is referred to as our 'ecological identity or self' (Naess, 1973); and attachment to nature and place are thought to affect human identity or self-definition (Clayton and Opatow, 2003; Mayer and Frantz, 2004; Schultz et al., 2004). Perkins (2010) defines the construct of love and care for nature as "a deep love and caring for nature which includes a clear recognition of nature's intrinsic value as well as a personal sense of responsibility to protect it from harm". Similarly Nisbet et al. (2009) proposed the term 'nature relatedness' (NR) to explain our connectedness with other living things in the natural world - even those that are not appealing to humans.

Klassen (2010) suggests a strong interrelatedness between ecological identity, sense of place and ecological literacy, and establishes that the degree to which these three concepts influence individuals varies from person to person. He also concludes that an individual's CNT is dependent on a variety of precursors,

including 'prior knowledge', 'lived experiences', 'cultural background', as well as 'encountering and conversing with people who display their compassion, caring, and dedication for environmental concerns'. Schultz (2002) also suggests that 'values' act as a bond between all these concepts and precursors mentioned by Klassens since they underpin the relationship with the natural world, and their affective psychological and physiological responses to natural settings (Crystal and Chuck, 1987). Wilson (1984) also suggests that another important determinant impinging on our deep and profound relationship with nature is spirituality, and suggests that an ecological self is experienced through 'a sense of belonging or spiritual oneness with nature'. Similarly Kamitsis and Francis (2013) conclude that exposure to nature and CNT are indeed positively associated with psychological wellbeing and significantly mediated by spirituality. Schroeder (1990, 1991) defines spirituality as the experience of "being related to or in touch with an 'other' that transcends one's individual sense of self and gives meaning to one's life" at the deepest level of the human psyche (Crystal and Harris, 1987). Thus, the human values of natural areas can also include the sense of timelessness and feelings of community and connectedness to other people as well as to places and things in nature (e.g. landforms, natural features, other living things) (Daniel et al., 2007).

Schultz (2002, 2004) argues that the construct for CNT is composed of three dimensions of psychological inclusion in nature – i) a cognitive or mental representation of that self that creates an interdependence with nature; ii) an affective representation which refers to an individual's emotional bond with nature that creates a sense of intimacy and care for it; and iii) a behavioural component which refers to an individual's commitment to act in the best interest of the natural environment and protect it. However Ashmore et al. (2004) suggest that there are more dimensions to CNT and propose that 'collective identity' also has a determinant role since one may interpret nature as a collective community which humans belong to (Clayton, 2003). Collective identity is defined by Tajfel (1978) as "that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership". Collective identity is also related to social capital theory which Perkins et al. (2002) define as "the norms, networks, and mutual trust of 'civil society' that facilitate cooperative action among citizens and institutions", and which results in direct benefits for those community members (Kawachi et al., 1997). In fact, social capital theory could also play an important role in the way humans adapt to environmental shocks (Mogues, 2006), or in certain cases even why they hamper adaptation (Bezabih et al., 2013). It would therefore be fair to conclude that the level of resilience of social-ecological systems is not only dependent on social factors such as people's ability to anticipate changes and adapt to future challenges (adaptive capacity), but is also influenced by human intervention, institutional policies and exposure to natural changes over time (Nelson et al., 2007). Consequently ecological resilience and social factors like CNT are intrinsically interconnected through changing forms of natural resource management demands over time (Ruiz-Mallén and Corbera, 2013).

Several authors (e.g. Bragg, 1996; Roszak, 1992) insist that a more connected sense of self to nature is conducive to environmentally responsible behaviour (ERB), and that less tangible social motivations like CNT or place attachment are in fact potential drivers of significant environmental action (Kals et al., 1999; Vaske and Kobrin, 2001; Dutcher et al., 2007). Indeed, as connectedness to nature or place increases so does one's empathy and willingness to

Download English Version:

<https://daneshyari.com/en/article/7482029>

Download Persian Version:

<https://daneshyari.com/article/7482029>

[Daneshyari.com](https://daneshyari.com)