

Engagement with nature and pro environmental behaviours: The Deep Blue Survey

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There are a myriad of reasons why the relationship between surfing and sustainability is attractive as a focus for academic study. The relationship between cultural and subcultural dynamics, the rapid expansion of the multibillion dollar surfing industry and the transition to sustainable business models. Not to mention technological developments that have allowed for long range wave forecasting and the creation of artificial wave environments that challenge our very conception of what is natural. And now surfing is an official Olympic sport which raises all sorts of other issues relating to the nature of the activity itself that sits on the spectrum between spiritual pursuit and sport.

But ultimately it is the sheer raw beauty of the act of surfing that engages millions of people all over the world, and if you don't surf, you've probably got the T-shirt. And it is this immersion in nature, with the ocean and the use of thermal energy by the surfer through atmospheric heating and storm formation and direct contact with a wave that has led to the proposition that surfers may be more environmentally aware than the general population. This leads to the suggestion that surfers can act as environmental steward and leaders on sustainable transitions. It has been suggested that surfers are the canaries in the coal mine, acutely aware of oceanic pollution and the impacts of climate change. Anecdotally this seems to be supported with surfers highlighting environmental problems through groups such as Surfers Against Sewage who have successfully changed legislation, lobbied government have mobilised thousands of people across the country to engage in environmental action such as beach cleans.

But there is also a paradox inherent in the assumption of environmentalism and surfing. The surfing industry relies on the production, packaging and distribution of consumer products, it relies on the production of surfboards and wetsuits which contain toxic and polluting materials. In tandem with this there is very little empirical evidence that supports the proposition that surfers are more environmentally aware and that they will be able to act as exemplars for environmental action among the

general population. Indeed, it has been observed that there is a tension within surfing between individualism and broader engagement which makes it important to understand competing values and motivations. To that end the following discussion explores the results of research that sought to address exactly these tensions.

Environmental engagement and action

Initially it's pertinent to briefly outline just how complex this area of research is. The question 'does direct engagement with nature promote not only environmental awareness but also engender pro-environmental behaviours' has received increased, though sporadic and fragmented academic attention over the years. It is important to recognise that a raised awareness of the environment and environmental issues does not necessarily translate into environmental action on a personal or broader societal level, this is often termed the value action gap. A review of the available academic literature points to a complex process that engages socio-psychological insights that changes in different geographical locations, cultural contexts and across age ranges and gender categories. Indeed, it has been argued that when it comes to the question of what creates pro environmental behaviour it is so complex that no single model can appropriately express the many variables involved. Nevertheless, there is an emerging consistency in the data that points to the important role of direct engagement with nature on positive environmental behaviours.

With that in mind recent attention has been focused on how outdoor recreation in whatever form that takes is impacting on environmental attitudes and behaviours. Whether on land or in the ocean there is increasing evidence that outdoor pursuits have a significant impact on an individual's relationship with the environment and their action towards it. The focus of the research discussed here is 'does a surfer's immersion in the ocean translate into heightened understanding and actions towards the environment'?

With the above in mind work relating to environmental attitude and behaviour frequently follows Schwartz's norm activation theory and later the application of the altruistic behaviour concept (Schwartz 1977). The former highlights the importance of such factors as values, perceived consequences of behaviour,

ascription of responsibility or control attribution. The latter focuses on personal norms, feelings of moral obligation, and altruism Schwartz's goes on to argue that values in society are ordered along two pivotal dimensions. The first extends from the self enhancement pole which relates to self interest and moves towards the self transcendence end of the spectrum (altruism). This combines with acknowledgement that perceptions of nature alter significantly and are highly contextual (Macnaghten and Urry 1998; Hulme 2009). With that said research indicates that engagement with nature can enhance pro- environmental behaviours the underlying premise is that engagement and identification with nature promotes not only an awareness of environmental issues but also a personal sense of stewardship and protection. For example, Larson et al. (2010) looking at outdoor recreation in state parks concluded that outdoor recreation does impact environmental behaviours.

Situational variables are also important in exploring environmental behaviours. Proshansky et al. (1983) claimed that humans, through interaction with the physical environment, develop a cognitive structure representing memories, ideas feelings, attitudes, values, preferences, meanings, and conceptions of behaviour and experience related to the physical environment. Proshansky's place-identity concept relates to a system of references to the environment that are constructed by the individual over time. Another term in the literature that has been used to describe bonding to an environmental setting is place attachment (Low and Altman, 1992). Together these terms enable the construction of environmental identity and attachment not just at the local level but also through an expanded global awareness.

The research presented here took the form of a survey that was informed by the above insights as well as using a format that had been utilised in a number of previous settings (Borne 2010). The research was conducted in partnership with Californian not for profit organisation Sustainable Surf who have had a significant impact over the past six years in transitioning the surfing industry towards a more sustainable operating model.

Engaging the surfing community

The survey was made public through the Sustainable Surf web site in June 2017 with an official response period running until the 17th January 2018. Respondents were encouraged to complete the survey through the random selection of a winner that received a surfboard as a prize. With limited exposure or marketing the survey received 575 responses from people in 35 countries. The vast majority of the respondents surfed and felt that being in nature was the most significant motivating factor for actually going surfing in the first place. This was considered a higher motivating factor than having fun, friendship or exercise, though these issues also scored highly.

The majority of respondents indicated that they engaged with surf culture. Beyond actually surfing responses were significant with regard to engagement with elements of surf culture including, surf media, films and clothing. Overwhelmingly, respondents also indicated that they pursue other outdoor activities. All respondents considered themselves to be environmentally aware and over 80 percent indicated that they felt that the act of surfing made them more environmentally aware. Equally significant respondents felt that they behaved in an environmentally friendly manner. When asked what respondents felt were the main barriers to behaving in an environmentally friendly manner infrastructure was the most significant, followed by money and information. These initial insights provided a strong indication that as a subgroup of recreational ocean users surfers were not only engaged with nature, aware of environmental issue, but also translate this engagement and awareness into action.

Community and place attachment

Community and place attachment has been identified as a significant viable in connection to environment and behaviours. This is particularly pertinent in light of the processes that are associated with globalisation and the exponential growth of interactive web technologies, mediums and platforms. Focusing on community as a variable of analysis within the research therefore allows insights into how surfers

understand their position within global networks. Overwhelmingly, the research indicated that surfers felt that they were part of more than one community. These multiple communities include, family and friends, hobbies work and more. Also community was seen as not geographically fixed but something that combines elements of local and global phenomena. This connection to the global also resonated strongly with what perception of the environment actually meant to them. Participants indicated that they were most concerned with the environment followed by health, education, the economy and crime. The majority of respondents also said that the environment was important in their everyday lives.

Evoking environmental concern through risk association is identified as a prominent factor in activating behaviour and engaging the general public (Borne 2018). The research therefore presented the participants with a number of risks that were associated with sustainability. This included, climate change, ozone depletion, biodiversity loss, carbon footprint, ocean acidification, marine plastics and sea level rise. There was a high level of awareness of these risks which again points to an engaged population and indicates a propensity to act in a positive way in order to mitigate against and/or adapt to these risks. This there is little scope to expand on this here, there was significant diversity between the global and local interpretations of risk that provide important insights into environmental behaviours.

Ocean connection

Whilst the previous discussion focused on issues of community, environmental awareness and the resonance of environmental risks to the everyday lives of the surfers a significant component of the research also sought to establish the impact of the ocean itself on environmental awareness and action. Most of the surfers in the research displayed very high concern for the health of the oceans. What is more they felt that the very act of surfing increased their interest in protecting the ocean. For the surfers that participated in the study direct connections were also made with their well being and that a reduction in the quality of the ocean environment had a

direct impact on their own wellbeing. This connection to the self is important as it addresses the tension between individualism and broader action outlined above.

Responsibility

It has been argued that feelings of responsibility are intimately tied to an individual's ability to act in a pro environmental manner. The Research therefore sought to establish who the participants felt were responsible for environmental problems. Most participants indicated that everyone was responsible. This was followed by a number of closely related issues indicating a diverse assignment of blame for current environmental issues. Corporations were seen as the next most responsible, then government followed by the economic system and the general public. Over a third of participants said that they themselves were responsible. This presents a certain level of contradiction within the data. Combined with the highest category of 'everyone', there seems to be a transfer of responsibility away from the self and the individual to a more generalised understanding of responsibility.

Conclusion

This discussion can only provide a brief snapshot of the results and the necessary critical analysis that must follow. But at the risk of being overly simplistic the following conclusions can be drawn. Overall the results suggest a highly environmentally engaged and motivated group. There was consistency in relation to being engaged with nature through surfing and a resultant raising of awareness and environmental action. Participants identified strongly with nature in their everyday lives and overwhelmingly indicated that the act of surfing contributed towards this engagement. There was also a strong engagement with multiple communities both locally and globally. Respondents also identified strongly with the ocean at a personal level. Results present just a glimpse of surfers engagement with the environment and sustainability more generally and add an important layer of understanding to the relationship with nature and subsequent pro- environmental

behaviour . Ultimately, this research can only provide a snapshot and is part of a broader research project that was conducted over six years and on three continents. But there is an emerging body of evidence that points to the ability of environmental recreation within natural environments fostering the right conditions to engage and motivate people to think more meaningfully about their everyday action and the impact this has on broader society.

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