

Recreation, Values, and Stewardship: Rethinking Why People Engage in Environmental Behaviors in Parks and Protected Areas

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Introduction

SUCCESSFULLY PROMOTING AND ENCOURAGING THE ADOPTION of environmental stewardship behavior is an important responsibility for public land management agencies. Although people increasingly report high levels of concern about environmental issues, widespread patterns of stewardship behavior have not followed suit (Moore 2002). One concept that can be applied in social science research to explain behavior change is that of values. More specifically, *held* and *assigned* values lie at the heart of understanding why people around the world continue to live in unsustainable ways that impact parks and protected areas. A *held* value is an individual psychological orientation defined by Rokeach as “an enduring belief that a specific mode of conduct or end-state of existence is personally and socially preferable” (1973, 550). Held values are at the core of human cognition, and as such, influence attitudes and behavior. *Assigned* values on the other hand, according to Brown (1984), are the perceived qualities of an environment that are based on

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and deduced from held values. In other words, assigned values are considered the material and nonmaterial benefits that people believe they obtain from ecosystems. Held and assigned values predict stewardship behaviors (Figure 1).

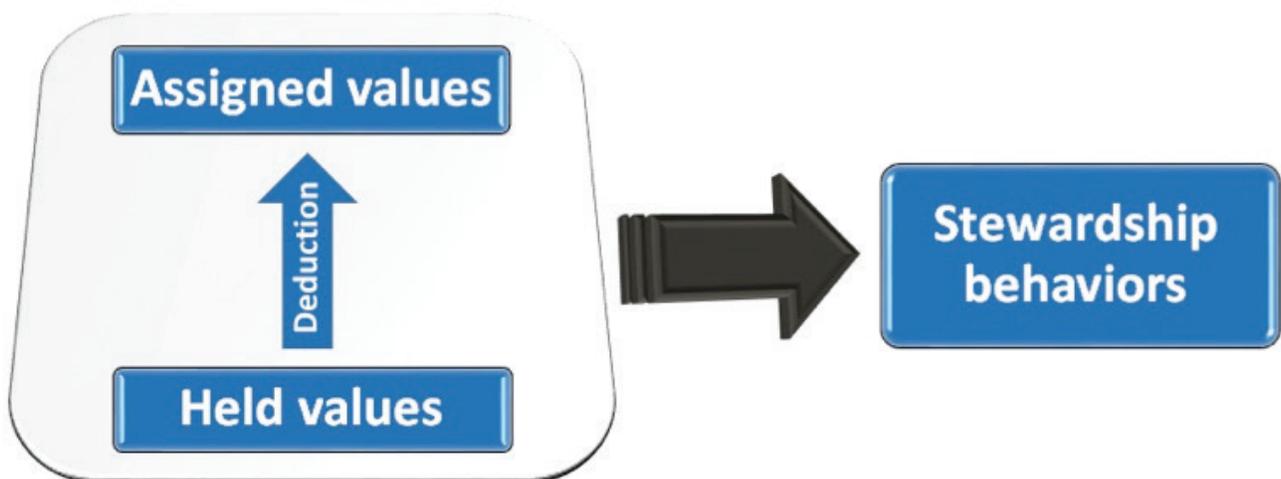
During the 2013 George Wright Society Conference on Parks, Protected Areas, and Cultural Sites, we organized a session to improve our understanding of why individuals and groups choose to engage in stewardship behaviors that benefit the environment. We used held and assigned values as vehicles to explore what people cared about in diverse landscapes, review select case studies from across the globe, and question how best to incorporate visitor perspectives into protected area management decisions and policymaking. In addition to sharing project results, we also discussed the importance of accounting for multiple and often competing value perspectives, potential ways to integrate disciplinary perspectives on valuing nature, and future directions for social science research and practice.

In this paper, we present the results from our session to provide fodder for further contemplation about the timely question of how park and protected area managers can foster values that lead to environmental protection.

Ryan Sharp

An investigation of value orientations and Leave No Trace Behaviors among whitewater rafters. The first paper presented in this session explored *held* value orientations reported by whitewater rafters that visited the Kern Wild and Scenic River in California. Four dimensions of held value orientations were examined: egoistic (self-centered values), altruistic (welfare of others), biospheric (nature based values), and hedonic (pleasure based values). The study hypothesized that value orientations predicted motivations to engage in rafting activities, and that motivations were affected by leave no trace (LNT) behaviors (e.g., avoid trampling vegetation, properly disposing of waste, observing wildlife from a distance) specific to the Kern River context. Confirmatory factor analysis verified the measurement properties of scales used for this study, structural equation modeling examined the hypothesized relationships between values and motivations, and invariance testing gauged whether this relationship was moderated by LNT behaviors. Consistent with past work, values predicted motives for rafting. For example, recreationists who held

Figure 1. Conceptual relationship between held and assigned values, adapted from Brown (1984).



biospheric values were most likely to be motivated by learning about nature while on their rafting trip. However, value orientations and motivations for participating were not moderated by LNT. In other words, LNT behaviors did not vary with different value orientations and goals for engaging in recreation (in this case, rafting). Given that rafting was a team-based experience, it could be that the group dynamic overpowered individual inclinations to derive benefits from rafting activities. Findings suggest that providing information about LNT may not be enough to elicit LNT behaviors in contexts such as white water rafting. Replicating this study in the context of individually-driven outdoor recreation activities (e.g., rock climbing, kayaking) may provide a fuller exploration of the boundary conditions under which individual versus group values account for their behaviors (Manfredo et al. 2014).

Wade M. Vagias

Predicting behavioral intentions to comply with recommended leave no trace practices. The LNT (LNT) visitor education program is used extensively by land-management agencies in the U.S. and abroad; however, empirical evidence for why visitors do or do not follow recommended LNT practices remains limited. This presentation focused on the extent to which attitudes regarding specific LNT practices, perceived peer pressure to perform these practices, and a person's perception regarding their abilities to perform recommended practices predicted their behavioral intentions to comply with commonly promoted LNT practices in protected areas. Study participants were overnight backcountry visitors to either Olympic National Park, Washington, or Glacier National Park, Montana. The final model explained over 44% of the variance in the dependent variable of intentions to practice LNT, but significant predictors differed between the two parks. Specifically, for the Glacier National Park sample, subjective norms (i.e., group or peer pressure), how difficult they perceived the minimum-impact behaviors to be, and their self-reported knowledge of LNT were all significant predictors of their intention to follow LNT practices. For the Olympic National Park sample, the only significant predictor of intention to follow LNT practices was how difficult visitors perceived practicing LNT to be. This study highlighted that specific factors appear to determine backcountry recreationists' LNT behaviors and that future strategic educational messaging should be designed around targeting these factors (Vagias et al. 2014).

Jane Kwenye

Pro-sustainable behaviors and loyalty: Exploring factors that influence revisits to a protected area using a Zambian domestic tourism market. This study of Zambians' destination loyalty in a nature-based tourism context. A model was tested to identify the relationships among service and facility quality, perceived value, satisfaction, and place-attachment on tourists' loyalty to the Victoria Falls World Heritage site. Loyalty refers to visitors' willingness to return to the site and recommend it to others, satisfaction to the extent to which tourists believe the visit evoked positive feelings, and perceived value referred to tourists' evaluation of what they experienced relative to what they paid.

Results showed that domestic tourists' perceptions of service quality at the site and the perceived value of their visits most affected the visitor's loyalty. Unique to this research was the additional demonstration that place attachment had a positive relationship to site loyalty. Loyalty to the Victoria Falls World Heritage Site was positively correlated with sustainability behavior (such as recycling and conserving water), which suggests that promoting tourists' interest in returning to the site could be an avenue for fostering improved nature stewardship among Zambians. The relationships identified in this model give resource and recreation managers a tool for devising communication and management plans that will enhance domestic tourists' loyalty to protected

areas which, in turn, may help influence a greater culture of sustainable behavior among Zambians.

Carena van Riper

Connecting concepts of place and value: The case of Channel Islands National Park. This presentation examined multiple values of the visitor experience at Channel Islands National Park, California (van Riper and Kyle 2014). Data for this study were collected via an on-site survey administered to a representative sample of adult visitors June through August, 2012. Our objectives were to assess the strength and characterization of place attachment, determine the relative perceived importance and spatial dynamics of 12 assigned values, and explore the meanings of places according to survey respondents. We analyzed survey items measuring four dimensions of place attachment (identity, dependence, affective attachment, social bonding) and discovered that respondents could be organized into five subgroups. Differences emerged in these subgroups' evaluations of assigned values that were ranked, and then mapped across the study area using a participatory mapping exercise. Multiple locations in the park were considered important, and respondents with stronger attachments tended to identify more locations that they felt embodied assigned values such as aesthetic, therapeutic, and cultural values. Additionally, individuals with stronger attachments, particularly those reporting high levels of identity, appreciated areas that they had not visited or experienced first-hand. In our analysis of place meanings, we found that encounters with the Santa Cruz Island fox (*Urocyon littoralis*) and sightings of the island scrub-jay (*Aphelocoma insularis*) were motivating factors that explained why places were considered important for the purpose of protecting biological diversity. Areas in view of the coastline and closer to infrastructure such as trail systems and interpretive centers explained why locations were assigned aesthetic and recreation values, respectively. This study suggested that the multiple values of the Channel Islands were formed as a function of human-place bonds and that research on attachment, assigned values, and place meanings can provide complementary information about the quality of visitor experiences in parks and protected areas.

Ken Bagstad

Economics, ecosystem services, and protected areas: Monetary and nonmonetary perspectives. This presentation offered a conceptual overview of the value concept from the perspective of an ecological economist. Data presented illustrates how society can, and increasingly does, value nature's services using methods adapted from ecology, social science, economics, and geography, and why criticism of ecosystem services (ES) valuation remains. Monetary valuation of ES, based on the economic theory that individual consumers rationally rank economic tradeoffs in their decisions, is widely applied, but is less appropriate for many cultural ecosystem services. However, tools exist to prioritize cultural and biophysical ES based on nonmonetary preferences (Bagstad et al. 2015). Given the field's experimental nature, ES have been used in economic decision making on a sporadic rather than a systematic basis, though agencies increasingly use ES as a justification for successful one-off conservation efforts, and a recent White House memo is requiring agencies to consider ES in decision making (CEQ 2015). Indeed, efforts by governments and institutions to manage natural resources that provide ES at local, national, and global scales can improve market efficiency, environmental sustainability, and, potentially, economic equity.

However, ethical questions remain about the role of ES in the economic system. ES valuation in particular has been widely popularized in recent years yet is still criticized (Norgaard 2010). For some, these concerns reflect less a criticism of ES science, which, while still growing, has developed rapidly in recent decades, and more a criticism of the basic "operating system" of the economy in which they are embedded. A key question for the future—and perhaps the real

root of remaining opposition of the ES paradigm—may be whether ES researchers, economists, and ethicists can learn to account for nature’s value while broadening the discourse about economics’ underlying operating system. Understanding how economics both exacerbates and can help address today’s “wicked problems,” such as climate change, food security, and poverty and economic development, is a very different approach from viewing ES simply as an add-on to the neoclassical economic paradigm that currently dominates academic and policy discourse. Whether the economic system is well equipped to deal with such key global issues is an important point of contention for critics of ES. Given new agency requirements to consider ES in decision making (CEQ 2015), these topics are likely to be of increasing interest to protected area managers.

Panel discussion with audience

The presentations from this panel prompted a lively and productive discussion about the role of values in protected area management decisions and policymaking. The first question asked how managers could inspire conservation ethics that encouraged particular values and maintained persuasive messages for the general public. The panelists noted that research suggests that held values (i.e., enduring beliefs) are not easily changed through interpretation and other outreach materials introduced when people visit parks and protected areas. On the other hand, assigned values (e.g., landscape qualities detected by visitors) are more effectively targeted by resource and recreation managers. That is, interpretation can draw attention to particular qualities of places, clarify acceptable ways to act, and encourage environmental behaviors over shorter time periods. These messages can simultaneously foster long-term changes, such as support for “biophilia,” a theory that suggests people share instinctive bonds with other living systems (Kellert and Wilson 1993).

The panelists also mentioned that cultural narratives could be employed to provoke thought and emotional responses among park visitors. To do this, communication strategies should tell the stories of different user groups and help visitors realize the importance of their role in decision making. “How can we honor visitors and show that they are part of the solution? How do I engage my visitors to share power and decision making?” These were two of the questions raised, which led the panelists to position social science research as a tool for addressing some of the universal challenges that face parks and protected areas.

Audience members were interested in the how protected area managers could yield more immediate results, given that held value orientations typically take lifetimes to shift within a population (Dietz 2005). Social media is one avenue for maintaining and enhancing relevancy for younger generations, and this approach is increasingly embraced by government agencies such as Parks Canada and the U.S. National Park Service. Another method is to tug at the heartstrings rather than pocket books of public constituents. The panelists and audience members discussed the idea that stewardship behavior could be energized by not only monetary compensation but also feelings of awe and transcendence. There was general consensus that the meanings people assign to places are highly variable, so multiple channels of communication should be adopted to encourage human-place bonding.

The values and stewardship behaviors of visitors were examined by most panelists; however, the activities of local residents were largely omitted from presentations in this session. One audience member raised concerns about the difficulties of capturing the perspectives of people who aren’t already committed to parks and protected areas. In response, the *idea* of wilderness was raised as an avenue for creating attachment and generating public support for nature protection (Williams et al. 1992). Another panelist noted that although residents may form attachments to nature-related concepts, these connections likely change over the course of generations. Social science research that purposely targets a younger demographic will provide currently underrepre-

sented insights on how best to increase activities outdoors that expose children to nature (Larson et al. 2010). In other words, social science research focused on young generations—alongside visitors and resident populations—may yield interesting and useful results.

A range of social science disciplines can help address many of the questions raised during this panel discussion. Increasingly, the social and natural sciences are being integrated to shed light on human-environment interactions, as evidenced by the growth of social science research programs in U.S. national parks, such as Yellowstone and Yosemite, which are meant to complement existing efforts within the natural sciences. Disciplines such as social psychology can provide insights on how to best craft messages in a way that appeals to different internal processes, political science offers valuable perspectives on policy change, and human geography can reveal the intricacies of bonds formed between people and places, which in turn motivate behavior. These are several examples of social science disciplines represented in the panelists presentations that can inform interdisciplinary research to protect key natural resources while providing enjoyable experiences for the public.

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