

CROSS CULTURAL COMMUNICATION: COMMUNITIES & CONSERVATION

PART 1. ENHANCE AWARENESS

MODULE 1. Problem Statement: Synthesis of Background Information

1. Interfaces Between Cultural and Biological Diversity

Conservation professionals interact with increasingly complex constituencies (Brewer 2003; Paolisso 2006; Paolisso 2007). This is especially true in rapidly urbanizing rural areas (Brown 1995; Bright and Burtz 2006; Bright et al. 2007). We argue that understanding the complex ways in which stakeholders conceptualize land conservation both within and between ecological regions can facilitate positive interactions between conservation professionals and local stakeholders.

Research on urbanizing rural areas has described the conflict that can arise when conservation orientations collide (Racevskis and Lupi 2006; Salamon 2003; Walker 2003). Conservation oriented newcomers who promote aesthetic landscapes over working landscapes are sometimes "viewed as political threats" by long-time residents (Walker and Fortmann 2003:469). The differences among diverse stakeholders with respect to how land is valued can be central to land conservation efforts, and the contribution of conflicting values to environmental controversy has been well documented (Clark et al. 1994; Dietz et al. 2005; Jobs 2000).

2. Cross-Cultural Communication

Differences in the ways that the public conceptualizes conservation have been framed along an anthropocentric/ biocentric continuum (Brunson and Steel 1996; Steel et al. 1994). Natural resource dependent communities have been theorized as more likely to view nature in terms of its instrumental value than non-resource dependent communities (McFarlane and Boxall 2000). Furthermore there is some evidence of differences between the western and eastern regions of the United States (Brunson and Steel 1996). However, an alternative paradigm that views humans and nature as interdependent has also been identified within broader global communities (Corral-Verdugo et al. 2008).

Racevskis and Lupi (2006) argue that stakeholder conceptualizations of conservation are complex and this diversity is not well represented using solely an anthropocentric-biocentric continuum. They employed a mixed qualitative-quantitative method that analyzed focus group statements for thematic content and applied frequencies to answers. The focus group discussions revolved around the topics of forest services, wildlife-forest interactions and forest management. Although Racevskis and Lupi (2006) did find support for the hypothesis that natural resource dependent communities were concerned about maintaining forest utilitarian productivity, they also found that rural communities expressed deep emotional attachment to forests that were not utilitarian in nature.

3. Cultural Models

Dialogue about land conservation reflects both the general aspects of cultural models shared by all citizens, and the diverse points of view that vary with the life experience of each individual. A basic framework for understanding cultural models of land conservation has been described by Paolisso et al. (in review). Drawing on previous theoretical work by cognitive anthropologists (c.f. Quinn and Holland 1987, Strauss and Quinn 1997), "cultural models are shared implicit and tacit understandings about how the world works. They are cognitive frameworks used by individuals to process and organize information, make decisions, and guide behavior " (Paolisso 2007: 656).

Through the lens of a cognitive or environmental anthropologist, the cultural models approach (Figure 1) is useful in the design of specific interventions such as collaborative learning workshops for stakeholders. For example, differences in cultural models may guide two stakeholders to act differently in response to information in the same pamphlet about fire management. A deeper understanding of variation in cultural models is needed to interpret why these two stakeholders associate different meanings with the words in the pamphlet. The theoretical underpinning is that behavior is related to complex interactions between experience and the cognitive framework each person draws upon to make sense of new information.

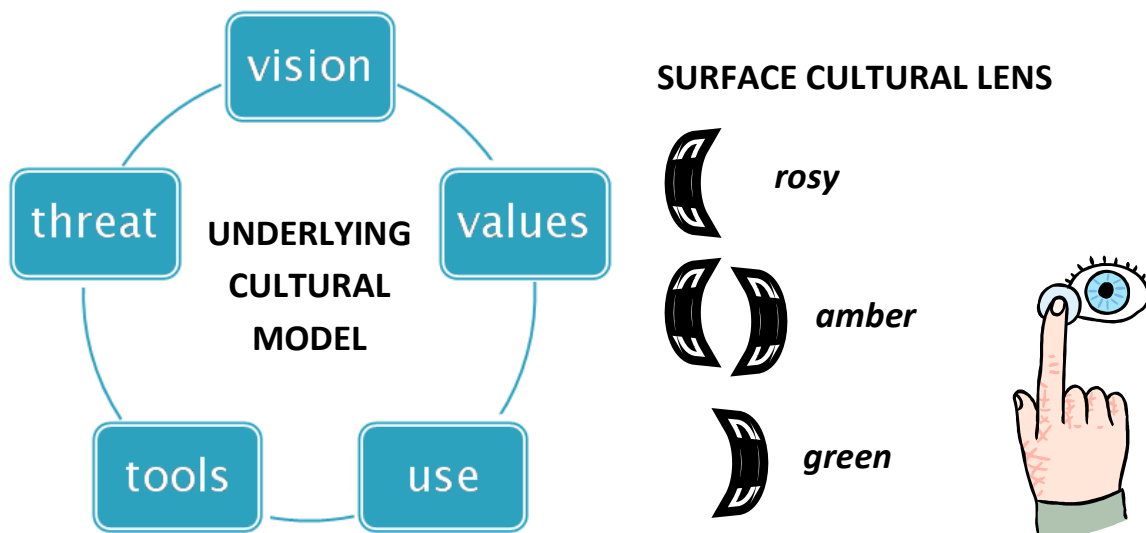


Figure 1. The complex interactions among implicit and explicit components in a belief system associated with land conservation (at left) has been analyzed qualitatively using the cultural models approach (from Paolisso et al. in review). We use the analogy of a cultural lens (at right) to interpret the quantitative results from factor analysis of stakeholder responses to a questionnaire designed via the cultural models approach.

To aid multidisciplinary research teams in applying the cultural models approach to land conservation, Paolisso et al (in review) diagrammed the basic components of belief systems (Figure 1). For example, one stakeholder with a vision of a "biodiversity preserve", will talk about associated values, appropriate land use, sets of acceptable conservation tools, and fears about threats to the sustainability of a particular landscape. Another stakeholder who views the same region, in terms of a vision for "community development", will likely differ in the acceptable values, use, tools and threats s/he associates with the same piece of land. Paolisso et al (in review) argue that analysis of one component in isolation is insufficient, and that analysis of the complex interactions among components in belief systems enhances the success of problem-solving approaches to implementation of government programs.

4. Stakeholder Perspectives as Cultural Lenses

Drawing on an analogy we used previously to describe the variation in stakeholder perspectives (Weeks and Packard 1992), we refer to the dimensions resulting from factor analysis of survey responses as "cultural lenses". This is just a label for the surface manifestation of a complex set of underlying interactions in belief systems of individuals.

Associated with the analogy of a cultural lens, we argue that a lens is a tool shaped in a culture outside the individual (Figure 1). Placed in front of the eye, a lens both focuses and filters patterns of light perceived by an individual. Individuals can consciously choose among lenses (i.e. tools), adopting those that are more effective at solving particular problems. Elaborating on the lens analogy, to treat an elderly patient with problems reading small print, an ophthalmologist may prescribe reading glasses. If magnifying lenses do not solve the problem, then the ophthalmologist may look for internal causes such as macular degeneration. Thus, we use the lens analogy in a slightly different way than Burns and Cheng (2007) use the analogy of a frame.

5. Relevance

5.1 Research Ethics

Conservation biologists have an ethical responsibility to consider the perspectives of the stakeholders whose lives may be affected by conservation research and implementation of conservation policies. Enhanced awareness of the cultural models approach can assist researchers and practitioners in complying with the ethic "do no harm". By understanding natural resource problems from several perspectives, stakeholders may discover mutually beneficial solutions that otherwise would not have been considered.

5.2 Professional Development Programs

We recommend integrating knowledge about diverse perspectives on land conservation, such as provided in this study, into professional development programs. Professionals who have worked with diverse constituencies for a long time are likely to

have an intuitive knowledge of the complexities documented (Weeks and Packard 1997). However, agencies are undergoing demographic shifts as aging cohorts retire. Initiatives for professional development can be very effective in encouraging employees to reflect on their own perspectives about land conservation and how that relates to others in their workplaces and to the communities that they serve.

Conservation professionals may have a lot to learn from applied anthropologists who use the cultural models approach to reach a deeper understanding of the complexities underlying surface behaviors (Paolisso 2006; Paolisso and Chambers 2001). Although current debates in the literature about the relative merits of a protectionist vs. a people-first approach to conservation have focused more on developing countries, the resulting understandings may be very relevant to under-developed frontiers in the developed world.

5.3 Collaborative Learning Workshops

Theoretically, by solving a cooperative learning task together, diverse stakeholders share an experience that may help them to understand how their own cognitive framework compares to other stakeholders with a different life experiences. Ultimately, we are interested in how shared learning experiences (e.g. collaborative learning workshops) influence willingness to frame environmental problems differently. Shifts in the ways stakeholders frame problems has been related to willingness to consider options for solutions otherwise not on the table (Gray 2003). Conversely, resistance to frame shifts has been related to a low degree of collaboration (Gray 2004). However, we needed a technique for measuring what we mean by a "frame" as (1) a causal variable to examine the effects on willingness to collaborate, and (2) an effect variable that may be influenced by interventions such as a cooperative learning workshop.

Relevant Readings

- Birchard, B. 2005. *Nature's Keepers: The remarkable story of how The Nature Conservancy became the largest environmental organization in the world*. San Francisco: Jossey Bass.
- Brewer, R. 2003. *Conservancy: The land trust movement in America*. Hanover: University Press of new England.
- Bright, A. D., and R. T. Burtz. 2006. Creating defensible space in the wildland-urban interface: The influence of values on perceptions and behavior. *Environmental Management* 37(2):170-185.
- Bright, A. D., P. Newman, and J. Carroll. 2007. Context, beliefs, and attitudes toward wildland fire management: An examination of residents of the wildland-urban interface. *Human Ecology Review* 14(2):212-222.
- Brown, B. A. 1995. *In Timber Country: Working people's stories of environmental conflict and urban flight*. Philadelphia: Temple University Press.

- Brunson, M. W., and B. S. Steel. 1996. Sources of variation in attitudes and beliefs about federal rangeland management. *Journal of Range Management* 49:69-75.
- Clark, T., R. Reading, and A. Clark. 1994. *Endangered Species Recovery: improving the process*. Washington D.C.: Island Press.
- Corral-Verdugo, V., G. Carrus, M. Bonnes, G. Moser, and J. B. P. Sinha. 2008. Environmental beliefs and endorsement of sustainable development principles in water conservation - Toward a New Human Interdependence Paradigm scale. *Environment and Behavior* 40(5):703-725.
- Daniels, S. E., and G. B. Walker. 2001. *Working through environmental conflict: The collaborative learning approach*. Westport, CT: Praeger.
- Dewulf, A., B. Gray, L. Putnam, R. Lewicki, N. Aarts, R. Bouwen, and C. van Woerkum. 2009. Disentangling approaches to framing in conflict and negotiation research: A meta-paradigmatic perspective. *Human Relations* 62(2):155-193.
- Dietz, T., A. Fitzgerald, and R. Shwom. 2005. Environmental values. *Annual Review of Environment and Resources* 30:335-372.
- Gray, B. 2003. Framing of environmental disputes. In *Making sense of environmental disputes: Frames and cases*, ed. R. J. Lewicki, B. Gray and M. Elliott. Washington, DC: Island Press.
- . 2004. Strong opposition: Frame-based resistance to collaboration. *Journal of Community & Applied Social Psychology* 14(3):166-176.
- Hermans, C., J. Erickson, T. Noordewier, A. Sheldon, and M. Kline. 2007. Collaborative environmental planning in river management: An application of multicriteria decision analysis in the White River Watershed in Vermont. *Journal of Environmental Management* 84(4):534-546.
- Jobes, P. 2000. *Moving Nearer to Heaven: The illusions and disillusions of migrants to scenic rural places* CT: Praeger.
- McFarlane, B. L., and P. C. Boxall. 2000. Factors influencing forest values and attitudes of two stakeholder groups: The case of the Foothills Model Forest, Alberta, Canada. *Society & Natural Resources* 13(7):649-661.
- Pahl-Wostl, C. 2006. The importance of social learning in restoring the multifunctionality of rivers and floodplains. *Ecology and Society* 11(1):10 [online] URL: <http://www.ecologyandsociety.org/vol11/iss1/art10/>
- Paolisso, M. 2006. Chesapeake Environmentalism: rethinking culture to strengthen restoration and resource management. College Park: Maryland Sea Grant Publication.
- . 2007. Taste the traditions: Crabs, crab cakes, and the Chesapeake Bay blue crab fishery. *American Anthropologist* 109(4):654-665.
- Paolisso, M., and E. Chambers. 2001. Culture, politics, and toxic dinoflagellate blooms: The anthropology of Pfiesteria. *Human Organization* 60(1):1-12.
- Paolisso, M., and R. S. Maloney. 2000. Recognizing farmer environmentalism: Nutrient runoff and toxic dinoflagellate blooms in the Chesapeake Bay region. *Human Organization* 59(2):209-221.
- Racevskis, L. A., and F. Lupi. 2006. Comparing urban and rural perceptions of and familiarity with the management of forest ecosystems. *Society & Natural Resources* 19(6):479-495.
- Salamon, S. 2003. *Newcomers to Old Towns: Suburbanization of the Heartland*. Chicago: University of Chicago Press.

- Smith, B. L., and J. MacGregor. 1992. What Is Collaborative Learning? In *Collaborative Learning: A Sourcebook for Higher Education*, ed. A. Goodsell, M. Maher, V. Tinto, B. L. Smith and J. MacGregor. Philadelphia: National Center on Postsecondary Teaching, Learning, and Assessment at Pennsylvania State University.
- Steel, B. S., P. List, and B. Shindler. 1994. Conflicting values about federal forests: comparison of national and Oregon publics. *Society & Natural Resources* 7:137-153.
- Walker, P. 2003. Reconsidering 'regional' political ecologies: toward a political ecology of the rural American West. *Progress in Human Geography* 27:7-24.
- Walker, P., and L. Fortmann. 2003. Whose landscape? A political ecology of the 'exurban' Sierra. *Cultural Geographies* 10:469-491.
- Walker, P., and P. Hurley. 2004. Collaboration derailed: the politics of "community based" in resource management in Nevada County. *Society and Natural Resources*, 17:735-751.
- Weeks, P., and J. M. Packard. 1997. Acceptance of scientific management by natural resource dependent communities. *Conservation Biology* 11:236-245.

Acknowledgments

This material is based upon research supported by the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture, under Award No 2005-35401-16012 to the University of Maryland and Grant No. 0551832 from the National Science Foundation's Science, Ethics and Society Program to Texas A&M University, with subcontracts to Houston Advanced Research Foundation. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation or any other organization acknowledged or referenced herein. We would like to thank all anonymous participants and our willing partners in this project, including: Maryland Center for Agroecology, TX Forest Service, NRC&D Council of SE TX, Texas Forest Landowners Association, Big Thicket Association, and Golden Triangle Sierra Club. We would also like to thank Michael Birt, Nicole Dery and R. Shawn Maloney for their invaluable contributions to the research upon which this paper is based.

AUTHORS (direct correspondence to the primary author):

Jane M. Packard, Associate Professor, Texas A&M University, Wildlife & Fisheries Sciences
2258 TAMUS, College Station, TX, USA 77843-2258, 979-845-1465, j-packard@tamu.edu

Priscilla Weeks, Environmental Anthropologist, Houston Advanced Research Center, Social and Policy Analysis Group, 4800 Research Forest Drive, The Woodlands, TX, USA 77381, 281-364-6049, pweeks@harc.edu

Michael Paolisso, Associate Professor, University of Maryland, Anthropology, 1111 Woods Hall, College Park, MD, USA 20742-7415, 301-405-1433, mpaolisso@anth.umd.edu

Mridula Srinivasan, Texas A&M University, Wildlife & Fisheries Sciences, College Station, TX, USA 77843-2258, 979-845-5777, naitrab@yahoo.com