

Facts, Values, and Decision-Making in Recreation Resource Management

Thomas A. More, U.S. Department of Agriculture–Forest Service, Northeastern Research Station, P.O. Box 968, Burlington, Vermont 05402-0968; tmore@fs.fed.us

Scientific management was a foundation of the resource management professions through the 20th century and remains our guidepost for the 21st. The concept served us well, halting the rapacious resource use of the late 19th century and ushering in a new era of more rational management. Yet the phrase is problematic—science deals with objective scientific facts, while management concerns values, and values are traditionally excluded from science. Phrased differently, management is done to achieve some goal, to accomplish some end that can, and will, be judged in value terms: as good or bad, right or wrong, beautiful or ugly, etc. At some level, scientific management conflates facts and values, often trying to transform difficult value issues into technical matters. Yet such transformations can leave us in murky waters that increase, rather than decrease, public criticism.

To illustrate, consider the case of Komar and Melamid, two dissident Russian artists who emigrated to the United States. Reasoning that, in a democracy, ordinary people's opinions about art mattered, Komar and Melamid conducted a scientific telephone marketing survey of 1,001 adults in 1993 (Komar and Melamid 1997). They asked their respondents to assume that they were going to buy a painting to hang in their living room. What should its dominant color be? Should it be modern or traditional? A landscape or a portrait? Indoor or outdoor? A seascape or a forest? What should be in it: Other people, animals? Which animals? What season? How should it be painted? The artists examined the preferences of both women and men, as well as people in various geographic, ethnic, and income groups. They used their results to identify the painting most preferred by Americans, and then they painted it!

The results, of course, are ridiculous, just as the art world had predicted. As described by Dissanayake (1998:487): "This painting was a 44% blue landscape showing water, clouds, distant hills, a highly treed foreground, casually dressed human figures, George Washington, a yawning hippopotamus, some children, and a male and female deer—all painted in a conventional, all-purpose nineteenth century realist style."

I have little doubt that Komar's and Melamid's tongues were well lodged in their

cheeks. However, they have indeed performed a signal service by pointing out the danger of treating our research too literally. After all, all they did was to take the equivalent of one of our visitor surveys and treat the results verbatim. What they failed to do (intentionally, no doubt) was to interpret their survey-based "facts" within a broader, value-based context. I believe that recreation research and management suffers from a similar, but unintentional, failure. In the remainder of this paper, I discuss the uneasy relationships between facts and values, the various categories of value judgments, and the need to systematically enhance our ability to reason about value conclusions.

Facts, Values, and Fallacies

Facts and values have a complex, uneasy relationship with a long history. People have written about values—the good, the just, the beautiful—for over three millennia, but in modern (i.e., post-Renaissance) times, the person who cast the issue most clearly was David Hume, the great 18th-century Scottish philosopher. Hume noticed that his contemporary scientists described their world factually with statements about the nature of what is. However, as their discussion progressed, they gradually, almost imperceptibly, shifted from statements about what is (facts) to claims about what ought to be (values). What Hume demonstrated was that, under standard sys-

tems of logic, “ought” statements (values) cannot be derived from “is” statements (facts). Put differently, facts alone never tell us what we ought to do because the “ought” derives from a different source—from human goals and objectives.

Hume’s writings set off two centuries of intense argument about the relationship between facts and values (which probably would have pleased him immensely). Although many philosophers have proposed solutions, Hume’s logical analysis has held and, within the empirical tradition, there is an unbridgeable gulf between facts and values. It is this gulf which makes concepts such as “scientific management” dicey.

To understand the fact/value relationship, we need to examine both concepts more closely. Facts are objective—they inhere in the object and are considered to be independent of any particular observer. For example, the desk at which you work can be described factually. If we agree on measurement, it will be described as having a specific length, width, surface area, number of drawers, color, and so on. These attributes will remain unchanged no matter who is sitting at it. But often, what we really want to know is if it’s a *good* desk, and that depends upon the needs of a specific person. A good desk for you may be a poor fit for me. Value relationships are thus subjective—specific to the individual—and involve *evaluation*. There are many ways to evaluate real-world objects and situations, and so we have multiple values. A traditional psychological classification includes economic values, moral values, aesthetic values, spiritual values, and rational values. Put simply, economic values are standards for judging goods and services; moral values provide standards for judging conduct; aesthetic values are standards for beauty; spiritual values are standards for meaning; and rational values are standards for judging truth. The next section briefly considers each of these values in relation to park management (for a more thorough discussion, see More et al. 1996).

Five Value Categories

Economic values are the standards we use

to judge goods and services. Throughout their lives, people have to judge many different goods and services. Economic values are the standards we use to make such judgments, and economists have developed an elaborate system based on utility that quite literally enables us to compare the values of apples and oranges. Goods and services acquire utility simply because they help us fulfill goals. And, since not all goals are equal, goods and services differ in their value.

Parks, too, have utility since they help us to fulfill individual and societal goals. However, it is difficult to estimate this value in economic terms since parks are not trades in markets. Over the past quarter-century economists have devoted great effort to develop proxy measures of economic value for these resources. For example, it is possible to make a decision based on cost/benefit analysis, but people still may wonder if it is kind or just. Actually, moral values often trump economic values, so it is to these values that we turn next.

Moral values are standards for judging conduct. Honesty, fairness, altruism, kindness, justice, and so on form the general substance of this value category. Ordinarily, these values—which constitute the core of ethics—are applied to interpersonal relationships; they are lubricants for the social world.

Many park problems can be considered in moral terms. For example, is it fair to price parks when we know that such pricing excludes low-income people? Are park employees treated justly in their relationships with the agency? Do public involvement efforts incorporate a fair attempt at listening to all sides in a dispute? These and similar issues are frequently discussed from a moral perspective. Also important are the meta-ethical, decision-making criteria: Should a decision be made on the basis of the greatest good for the greatest number (utilitarianism), or is it more appropriate to consider individual rights (Kantianism). These latter questions are generally discussed under the heading of meta-ethics.

While traditional ethics concerns interpersonal relationships, environmental ethics has

been concerned with evaluating our conduct toward the Earth and its various species. Many highly charged park issues concern the management of infrahuman elements of nature. But, while rights and duties are the very essence of human ethics, their extension to the infrahuman world is controversial.

A full treatment of moral issues in recreation resource management would require a textbook rather than a brief article. What is important is to recognize just how many park issues have powerful moral components. We need to increase our sophistication dealing with such issues.

Aesthetic values—the concern of Komar and Melamid’s critique—are standards for appreciation. Natural environments can produce awe-inspiring beauty. But whether something is considered beautiful or not requires a judgment. By what standards do we judge something to be beautiful or ugly or simply commonplace? Actually, aesthetic judgments nicely illustrate the distinction between facts and values. We all know the phrase “Beauty is in the eye of the beholder,” but few of us realize that that view is only 300 years old, a product of the intellectual revolution of the 17th and 18th centuries. Prior to that, in the period generally termed *classical*, beauty was very much an attribute of the object, a factual matter of form, line, and proportion. However, the Enlightenment produced a new emphasis on internal experience, so factors such as internal absorption, fascination, and intrinsic appreciation became important (see Averill et al. 1998). Aesthetics became a broad category that included the fascinating and grotesque as well as the beautiful, and distinguished between the aesthetic object (what is “out there”) and our internal aesthetic experience. Research on natural aesthetics has focused on the object, asking what qualities make a scene or vista beautiful. Unfortunately, we have failed to understand the category’s breadth—nature contains many fascinating things (predator–prey relationships, fungi, etc.) that may not be traditionally beautiful but that are important to people nonetheless. We misunderstand the power of aesthetic values at our peril.

Spiritual values are standards for judging meaning. As biological creatures, people are born with an enormous, but unstructured, cognitive capacity. Consequently, we are all motivated by an intense need to search for meaning—by the desire to interpret the events and circumstances of our lives within a context. Spiritual values provide the standards by which we judge such meaning. As such, they are the overarching set of values within which the other values operate.

Work in this area is just beginning and it is unclear how it will develop. Can we design opportunities for spiritual experiences or manage for them in some way? Or, given the First Amendment, should public agencies even be concerned with them? What is clear is that spiritual values are powerful determinants of attitudes and behavior. While we may not be able to manage for them, neither can we neglect them.

Rational values provide the standards we use to judge truth. While it may seem odd to consider rationality a value, there is a generic quality of “oughtness” to it—rational decisions are good decisions, and irrational decisions are bad. However, the standards by which we judge rationality are normative. For example, have we been logical (i.e., objective and impartial, internally consistent, and in conformity with the rules of inductive and deductive influence)? Have we been willing to consider alternative explanations and subject our ideas to tests of falsification? And are our goals realistic, and our methods appropriate? These are the normative criteria that represent rational values; when decisions meet these criteria, they are considered rational and no further work is needed.

Each value category is represented by specialists with their own intellectual approaches. For example, rational values are the domain of scientists, while economists specialize in economic values. Moral values, including environmental ethics, are the concern of ethicists. In the future, we may see the development of a “recreational ethics” to deal with applied problems in recreation management, just as medical ethics helps physicians think through difficult problems. Landscape architects are

concerned with aesthetic theory, while spiritual values are the province of theologians. To date, I know of no specialists in “natural theology,” but who knows how this area may develop?

From Facts and Values to Decisions

How, then, should we integrate science and values in decision-making? Komar and Melamid’s (1997) results suggest the folly of failing to place the scientific facts into the broader context of aesthetic theory. It is interesting that their “art of the commons” reflects a mid-19th-century aesthetic. Historically, great art has tended to be produced by avant-garde artists who stretched the boundaries of contemporary style to create something new. A similar argument exists in the landscape literature. Carlson (1977, 1984) argues that great landscapes are created by individuals like Capability Brown or Frederick Law Olmsted, and that all the public research on aesthetic preferences has only led us to the conclusion that the public likes the kinds of scenes that are printed on postcards—something we already knew. Ribe (1982), by contrast, argues in favor of an egalitarian aesthetic.

So, should aesthetics be elitist or egalitarian? Disputes of this kind usually have some truth on each side. The opinions and aesthetics of ordinary people matter, but preferences change with the times so that our management can only be improved by interpreting the results of public opinion polls within the broader context of aesthetic values theory.

A similar situation arises with carrying capacity. It is commonplace to advocate use restrictions to preserve quality. But such restrictions raise other questions: How they can be implemented *fairly* is a moral issue, at least in the public sector. Higher fees are one rationing mechanism, but fees have a substantially greater impact on low-income people than on upper-income people (More and Stevens 2000; Reiling et al. 1994). Lotteries or other complex rationing schemes raise similar questions. Perhaps more importantly, current projections suggest that the U.S. population will nearly double by the year 2050 (U.S.

Census Bureau 2003). If this occurs, it is likely that it will alter the entire way we construe parks and their social functions in society.

I also am concerned that our emphasis on capacity may lead to an undue emphasis on protection and visitor regulation and control, especially when coupled with programs such as the fee demonstration program. Unless we consider their broader ramifications in a value context, such programs have the potential to return us to the elitism that characterized the start of the American park and recreation movement. To love natural areas, people must be encouraged to participate. More than 20 years ago, Joseph Sax (1980) argued that the focus of national park policy ought to be to get people to take the first few steps away from their cars and toward the wild. Sax’s argument is even more pertinent today and we ignore it at our long-term risk.

In sum, rote, rule-based decision-making of any sort is likely to prove overly simplistic. The facts in a situation are both important and illuminating, but they must be interpreted within the broader goals of recreation management, which are value-based and will likely shift with the times. Ultimately, science is still no substitute for simple dithering, trying to think as broadly as possible about the context and consequences of a decision and wondering if it is good or bad, right or wrong, beautiful or ugly.

References

- Averill, J., P. Stanat, and T. More. 1998. Aesthetics and the environment. *Review of General Psychology* 2:2, 153–174.
- Averill J., and T. More. 2000. Happiness. In *Handbook of Emotions*. 2nd ed. M. Lewis and J. Haviland-Jones, eds. New York: Guilford Press, 663–676.
- Carlson, A. 1977. On the possibility of quantifying scenic beauty. *Landscape Planning* 4, 131–172.
- . 1984. On the possibility of quantifying scenic beauty—a response to Ribe. *Landscape Planning* 11, 49–65.
- Dissanayake, E. 1998. Komar and Melamid discover Pleistocene taste. *Philosophy and Literature* 22:2, 486–498.

Understanding, Managing, and Protecting Opportunities for Visitor Experiences

- Komar, V., and A Melamid. 1997. *Painting by Number: Komar and Melamid's Scientific Guide to Art*. J. Wypijewski, ed. New York: Farrar, Straus, and Giroux.
- More, T., J. Averill, and R. Glass. 1996. Non-economic values in multiple objective decisionmaking. In *Multiple Objective Decision Making for Land, Water, and Environmental Management*. S. El-Swaify and D. Yakowitz, eds. Boca Raton, Fla.: Lewis, 503–512.
- More, T., and T. Stevens. 2000. Do user fees exclude low-income people from resource-based recreation? *Journal of Leisure Research* 37:3, 341–357.
- Reiling, S., H. Cheng, and C. Trott. 1994. Measuring the discriminatory impact associated with higher recreational fees. *Leisure Sciences* 14:2, 121–138.
- Ribe, R. 1982. On the possibility of quantifying scenic beauty: a response. *Landscape Planning* 9, 61–75.
- Rokeach, M. 1973. *The Nature of Human Values*. New York: Free Press.
- Sax, J. 1981. *Mountains without Handrails: Reflections on the National Parks*. Ann Arbor: University of Michigan Press.
- U.S. Census Bureau. 2003. National population projections—I: Summary tables. Online at www.census.gov/population/www/projections/natsum-T1.html.

