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# Definition of Social Acceptability in Ecosystem Management

Mark W. Brunson



## A Definition of "Social Acceptability" in Ecosystem Management

Mark W. Brunson

#### Abstract

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Social "acceptability" is one of three criteria that are supposed to guide ecosystem management decisions, yet a recent problem analysis found "there is an inadequate understanding of what constitutes 'acceptability' with regard to [ecosystem management]." Based on research undertaken in response to that analysis, this paper offers a working definition of social acceptability. Subsequent discussion focuses on the implications for ecosystem managers of four aspects of that definition: the social context of individual judgment, influences upon the comparative process, behavioral expressions of acceptability judgments, and observation/measurement issues.

Keywords: Mixed scanning approach, attitudes, behaviors, ecosystem management, social acceptability.

## Introduction

This collection of papers culminates a research effort with a deceptively simple objective: to define "public acceptability" with regard to management practices and conditions in the national forests. When the USDA Forest Service's New Perspectives in Forestry research initiative was launched in 1990, its goals were to identify practices and policies that could (1) "maintain biodiversity" while (2) managing forests "to balance values and produce a sustained supply of goods and services" (Stankey and Clark 1991, p. 12). The word acceptability appears in neither of those goals. Yet clearly an underlying impetus for New Perspectives was widespread and growing skepticism about the Forest Service's ability to sustain both the flow of resources and the forests that provide those resources. Simply put, the public increasingly found practices and conditions on the national forests to be unacceptable, and the Forest Service needed to find ways to reverse that trend.

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If public acceptability is to be an explicit objective of national forest management, the Forest Service will require methods to measure acceptability of current practices, predict acceptability of proposed practices, and understand the reasons for failures to achieve acceptability. Yet when Stankey and Clark (1991) evaluated social science research problems associated with New Perspectives, they found that "there is inadequate understanding of what constitutes 'acceptability' with regard to the practice of New Perspectives and of the associated impacts of these differing conceptions" (p. 23).

Consequently the study was launched which ultimately produced this document as well as other papers exploring meanings of acceptability in a forestry context (Brunson 1992<sup>1</sup>, 1993; Johnson and others 1994). In the intervening period, New Perspectives has evolved from a research initiative into agency policy, now called "ecosystem management." The latter is described by the Forest Service leadership as "a multiple-use philosophy built around ecological principles, sustainability, and a strong land stewardship ethic, with a better recognition of the spiritual values and natural beauty of the forests" (Robertson 1991, p. 19). Robertson's description implies certain requirements for future practices and conditions on federal forests:

- they must be ecologically sustainable, directing managed forests toward a "desired future condition" which embodies the complexity of ecosystem interrelationships at a variety of spatial and temporal scales;
- they must be economically feasible, meeting societal demands for the myriad products of forests at a cost that does not exceed the priced and unpriced benefits gained; and
- they must be socially acceptable, reflecting a sensitivity toward recreational, aesthetic, spiritual, and other noncommodity values of forests.

The adoption of ecosystem management therefore underscores the need to understand what socially acceptable forestry might be. The objective of this paper is to provide some foundation for that understanding. It offers a working definition of social acceptability, and discusses aspects of that definition that are likely to affect the implementation and evaluation of ecosystem management. The definition represents a synthesis of ideas about public judgment drawn from a number of disciplines including forestry, political science, sociology, psychology, landscape architecture, economics, and philosophy. Many of those ideas were found in an extensive literature review. Others were offered by my collaborators in this document, during a June 1992 workshop in Kelso, Wash., and in the papers subsequently submitted for this collection. Blame for the synthesis, however, is entirely mine.

## A Definition of Social Acceptability

The first obvious step toward defining acceptability in a forestry context was to examine current conceptualizations in related applied fields as well as the basic social sciences. However, it quickly became apparent that <u>acceptability</u> itself rarely appears as a rigorously defined concept in basic social science. Authors write of norms, preferences, values, and so on, but it is not clear where acceptability fits in this conceptual framework. Is an

<sup>&</sup>lt;sup>1</sup> Brunson, Mark W. 1992. Social acceptability of New Perspectives practices and conditions. Final project report prepared for the Cascade Center for Ecosystem Management, Consortium for the Social Values of Natural Resources, Olympic Natural Resources Center, and U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. On file with the author.

"acceptable" condition one which violates a widely shared social norm, for example, or is it simply one that fails to reflect the preferences of whichever constituency group holds the balance of power? How does an 'acceptable" condition differ from a "desired" condition?

If basic social science offered few answers, the forestry literature offered some answers but also created as many new questions. In the Forest Service, the term <u>acceptable</u> may be most familiar as part of the Limits of Acceptable Change system for wilderness planning (Stankey and others 1985). Although the authors did not define what they meant by "acceptable," they used the word in two ways: to describe what is legally permissible under the Wilderness Act of 1964, and to describe what wilderness users agree is desirable as determined during a consensus-driven planning process. What, then, does it mean for a wilderness condition to be "unacceptable"? Since legal mandates carry more weight in public policy than visitor preferences, the consequences of "unacceptability" may vary considerably.

Acceptability is also an objective of visual resource management, as noted in this rather ambiguous passage from a manual published by the British Columbia Ministry of Forests (1981). The agency defined its scenic management challenge as being "to maintain acceptable forest landscapes and, at the same time, ensure that optimum economic and social benefits accrue to the people of the province" (p. 7). This statement seems to imply that acceptability somehow exists apart from economic or social influences, and may even be antithetical to societal needs -- even though clearly it is society which must do the accepting.

Even though the term acceptability is not used, much has been written about the ways by which humans judge environments. Based on this a tentative definition could be crafted:

Social acceptability in forest management results from a judgmental process by which individuals (1) compare the perceived reality with its known alternatives; and (2) decide whether the "real" condition is superior, or sufficiently similar, to the most favorable alternative condition. If the existing condition is not judged to be sufficient, the individual will initiate behavior -- often, but not always, within a constituency group -- that is believed likely to shift conditions toward a more favorable alternative.

## Implications of the Definition

Several aspects of this definition have implications for a policy objective of achieving public acceptability in ecosystem management. Acceptability is characterized as a product of <u>individual</u> judgments, but it is susceptible to group influences and provides an impetus for group behaviors. Judgments of acceptability are said to be a result of a <u>comparison</u> process, thereby suggesting that (1) there must be something with which to compare and (2) certain general rules will govern the comparative process. Acceptability is said to be reflected by <u>behaviors</u> rather than simply by attitudes toward a forest practice or condition, although it is understood that behaviors are usually stimulated by attitudes. And finally, acceptability is said to be generally <u>not observable</u>, but rather something that must be inferred from the absence of overt behavior indicating a failure to achieve it.

## in a Social Context

Individual Judgments Management decisions regarding government-controlled resources must consider the impacts of those decisions on an aggregation of persons we call the public. Yet really there is no such thing. Public opinion exists only as a "constitutionally institutionalized norm" (Habermas t 989); we behave as though it were something more because democracy cannot function if we do not do so. But "the public" is in fact a constantly shifting set of interpersonal affiliations, each of which can be characterized in terms of positive or negative responses to governmental actions commonly expressed by its members.

> Ultimately those responses are the result of individual humans making choices based on available information. Because much of that information is filtered through the network of interpersonal affiliations, individual judgments invariably are based in part on the perceived judgments of reference groups, i.e, groups to which a person belongs (or aspires to belong) which serve as standards for judging appropriate behaviors in situations when more direct cues such as previous personal experience are ambiguous or nonexistent (Shibutani 1955). Few direct cues are available for evaluating ecosystem management due to its newness; therefore, the influence of reference groups may be enhanced.

> Carroll (1989) offered a relevant example of reference group influence on judgments about forest management. He found that "negative evaluation of the Forest Service serves as an important unifying theme for loggers in the study area. One logger candidly stated, 'I'm a logger, so I'm supposed to hate the Forest Service" \$.101). Therefore it might be difficult for a logger to offer a positive evaluation of a Forest Service initiative such as ecosystem management, especially if it is to be made in a setting where a number of loggers are present and are monitoring each others' responses (e.g., a public involvement meeting).

> Efforts to shift a practice or condition from unacceptable to acceptable status (or at least a to a position of neutrality) ultimately must be directed at individuals. Given the polarization that has characterized contemporary disputes between natural resource interest groups, it may be easier to achieve changes in acceptability judgments when individuals are most likely to respond as such, without the attitude-reinforcement dynamic found in group meetings. However, it is much more efficient to target new information at reference groups, which may be relied upon to subsequently influence the judgments of large numbers of their members. Probably the most effective information strategy will be one that targets both groups and individuals.

## **Dynamics of** the Comparison **Process**

As noted previously, acceptability judgments are comparisons made based on available information. Clearly the first rule of comparison is that there must be a conceivable alternative to the condition or practice being evaluated. Conditions that are seen as unavoidable -- those that may be considered "acts of God" -- lie outside the realm of acceptability judgment no matter how disastrous their consequences might be for natural or human environments. Similarly, no comparison can be made if an alternative exists but the evaluator is not aware of it.

Yet humans also have a psychological need to make attributions -- to assign causes to the behaviors and circumstances we observe. As Heider (1958) pointed out, it is through attribution that we are able to organize the continuous stream of information we receive from the world into meaningful units. Therefore we can expect members of the public to judge forest conditions based on their beliefs about why the condition is present. If it is

perceived to be "natural," it is likely to be acceptable. This may be true if the natural cause has no alternative or, if an alterative <u>does</u> exist, because ours is a culture which increasingly equates nature with rightness (List, this proceedings). Conversely, if environmental disasters are seen as resulting from human activities or decisions, as many people believed concerning the 1988 fires in Yellowstone National Park (e.g. Buck 1989), the resulting condition may be unacceptable despite its natural origin.

If a forest condition is perceived to have human origin or design, its acceptability is likely to depend upon a judgment about the practice that created it. The acceptability of the practice will depend, at least in part, upon its perceived objective. Surveys conducted during ecosystem management field tours found that the most positive responses commonly referred to the purpose of the new approaches to forestry being demonstrated (Brunson 1992'). Ecosystem management was presented during the tours as an honest attempt to maintain diversity of species and ecosystem components, and tour participants accepted that characterization. As long as that continues to be true, then people may find ecosystem management practices generally acceptable even if they dislike the "sloppy" forest conditions they temporarily create.

Just as a desirable objective can make a somewhat objectionable practice more acceptable, the reverse is also true: the acceptability of the ends may depend on the acceptability of the means employed to achieve it. To be acceptable, ecosystem management must be seen as the best (or a good enough) means to achieve biodiversity and ecological sustainability. To decide which of several alternatives is "best," an evaluator must weigh the desirability, equitability, and feasibility of each alternative.

The easiest of these factors to evaluate is desirability. Anyone can decide which outcome they, <u>want</u> the most; more information is needed to judge feasibility and equitability. Some evaluators may not possess that information. Foresters sometimes complain that public demands (for example, a ban on clearcutting) are made with little understanding of the consequences. Certainly some people are unaware how much less efficient it is to grow many timber species in an uneven-age condition, and some of those people might find clearcutting more acceptable if they understood all of the economic and biological factors behind a decision to clearcut. It is also true, however, that others would decide that uneven-age silviculture is preferable as long as it is even marginally feasible. The difference is that the evaluation process used by those in the former group put more weight on feasibility; for them, a less feasible alternative may be judged less acceptable even though it promises more favorable results if successful. (Low feasibility here may imply higher economic costs, or a lower probability of success.)

Similarly, a desirable outcome may be rejected if the outcome appears unfair to a particular constituency group. Issues of fairness do enter into natural resource politics. Recent research on attitudes toward forest and rangeland management has suggested that while Americans do want to de-emphasize commodity production, they also worry about the effects of such a change on resource-dependent communities. Thus they repeatedly say that local community needs should receive the highest priority in making decisions about forests or rangelands (Brunson and Steel 1993, Shindler and others 1993), and they prefer that any increase in federal grazing fees be phased in rather than taking place immediately (Brunson and Steel 1993).

Related to both feasibility and equitability is the question of risk. Slovic (1987) characterized risk as two-dimensional: one dimension describing the fatality and global extent of risks, and one describing the extent to which risks are currently known. Forestry ranks low on the first dimension, but high on the second. Because mature forest ecosystems develop slowly, many years can pass between a decision and recognition of its consequences. We can predict the condition an ecosystem management practice will produce in 50 or 100 years, but we have no experimental evidence. Risks of an error in judgment (a decision's ultimate feasibility) are not entirely knowable, and any adverse results are likely to be borne (inequitably) by generations which had no opportunity to prevent its occurrence.

A final general rule governing the acceptability judgment process is that practices and conditions are judged in a geographic context. An obvious example of this is the so-called NIMBY (not in my backyard) syndrome. In a study of the scenic impact of partial-harvest practices associated with ecosystem management, Johnson and others (1994) found that 57 percent of urban/forest interface residents would rate a partial harvest acceptable at an unidentified location, but only 32 percent rated the same scene acceptable in a stand adjacent to their own backyards. The influence of geography is not simply a matter of self-interest, however. An example is offered by the environmental activist who was asked during one ecosystem management field tour how he felt about an experimental harvest unit. He replied that while it illustrated a real step toward sustainable forestry, he was dissatisfied because that watershed had already been extensively logged, and he felt no more harvest there was warranted even if it was designed to enhance biodiversity in the regenerated stand.

Attitude-Behavior Links and the Measurement Problem Because acceptability is a product of cognitive judgments, it is a description of one's attitudinal orientation toward forest conditions or practices. Yet the definition here refers not to attitudes, but to <u>behaviors</u>. Once a judgment has been made, an evaluator decides what (if anything) to do in response to that judgment. If the judgment is favorable -- i.e, the condition or practice is acceptable -- quite likely no behavior will be initiated. No recreation visit will be cut short; no local TV station will be alerted to "environmental destruction" by the Forest Service; no angry letter will be written to a member of Congress. Because North Americans are much more likely to criticize a bad bureaucracy than to praise a good one, only rarely will a supportive behavior be initiated in response to an acceptability judgment.

If the judgment is <u>not</u> favorable, the evaluator faces a choice: is it so unfavorable that action needs to be taken to shift the condition or practice toward a more acceptable state? Only if the latter choice is made should we say that the situation is "unacceptable" for purposes of ecosystem management. What I am arguing here is that if the evaluation is not sufficiently unfavorable to elicit an ameliorative behavior, the condition really is neither acceptable nor unacceptable, and it is not necessary for a managing agency to respond. This distinction is made for two reasons. The first reason is that people's attitudes may not always reflect the actions they want taken. It makes little sense for managers to try to respond to every shift in attitude even before it is strong enough or stable enough to cause the public to want something done. The second reason is that behaviors can be monitored and measured more easily and more efficiently than attitudes. While periodic "attitude checks" are a critical part of a socially responsive democracy, behaviors provide a more cost-effective early warning system of the need for a change in policy or practice.

Social psychologists have long wrestled with the problem of consistency between attitudes and behaviors. The <a href="theory of reasoned action">theory of reasoned action</a> (Ajzen and Fishbein 1980) holds that behavior is linked most consistently with behavioral intention, and even then, circumstances may intervene. For example, I may intend to stop visiting a certain favorite campsite because logging-related sediment has reduced fish populations, but find myself camping there anyway because an alternative site is occupied or because my family prefers that site for other reasons.

Attitudes are less closely related to behaviors. They may change because of new information received before any behavior is instigated. They may never translate into action because the attitude is not held strongly enough to warrant expending the personal resources (time, money, energy) likely to change the situation. Or an individual may prefer not to behave consistently with an attitude because the behavior would not be sanctioned by an important reference group. In each case, action by an agency in response to the attitude is unwarranted, either because the action is unlikely to satisfy the evaluator in the long term, or because the evaluator does not really care whether the action is taken or not.

When behavioral scientists ask research subjects to identify ranges of acceptable and unacceptable conditions, these ranges are not always contiguous (Petty and Cacioppo 1981, Williams and others 1992). Often there is some mid-range situation about which respondents are noncommittal. The definition of acceptability offered here implies that such mid-range evaluations should be considered acceptable even though, in fact, they are not. Elsewhere (Brunson 1993) I have warned that such a consideration could create a situation whereby ecosystem management produces a barely adequate forest (capable of being endured) rather than one that is pleasing to its constituencies (capable of being praised). However, there really are two questions here - one of policy and one of measurement.

The policy question is this: If foresters strive for social acceptability, are they shooting for a suitable target or sinking to an endurable threshold? The answer will depend partly on whether forestry is perceived as a social good or a necessary evil. For example, if one assumes that "the public" views all timber harvest as degrading to the forest, then the task becomes one of defining how much degradation society is willing to withstand. But if one assumes that some timber harvest is desirable -- because it provides products beneficial to society -- while too much harvest is detrimental, the policy objective is more likely to be to strive for a "desired future condition" rather than a "tolerable future condition.

Clearly the target approach is a more palatable guideline for policy than the threshold approach. We expect our ecosystem managers to seek a desired condition; in fact, the term <u>desired future condition</u> is now part of the Forest Service planning lexicon. But how will managers know whether they are on the proper trajectory toward the desired target? Here is where the measurement issue arises. An agency could continuously monitor public attitudes, repeatedly asking people how they are doing, and succeed primarily in annoying a public that has other things to do than respond to government surveys. Not only would such a program be impossibly cumbersome, but it would detract from the other role of public land managers, which is to make scientifically based professional judgments about ecosystems.

Alternatively, a well-designed and truly collaborative public participation process could be used to define the bounds of possible trajectories. Managers could then choose from among those trajectories based on their scientific knowledge and economic realities. If the participation process is handled properly and repeated often enough, and if the managers are monitoring social behavior sufficiently well to notice when the trajectory no longer falls within the socially defined boundaries, it should not be necessary to monitor attitudes on a continuous basis. Behaviors that indicate unacceptability -- expressions of dissatisfaction, whether through political action or simply "voting with one's feet" -- are more indicative of a real diversion from the optimal trajectory than attitudes which may never lead to behaviors.

This "mixed-scanning" approach (Etzioni 1973) acknowledges that the quest for optimal solutions is rarely attainable under conditions of even moderate uncertainty (Simon 1959), yet it avoids the "tyranny of small decisions" that can arise from an incrementalist, step-by-step approach to planning. Skeptics may notice that mixed-scanning resembles, at least philosophically, the Forest Service planning efforts of the 1980s -- the shortcomings of which contributed greatly to the need to adopt ecosystem management. Yet while those efforts came under heavy and well-deserved criticism, the mixed-scanning approach can be used effectively if the agencies truly watch for signs of unacceptability. Even more importantly, they must be truly willing to make the necessary adjustments if behavioral monitoring or periodic attitude checks make it clear that a practice or condition no longer meets the ecosystem management objective of social acceptability.

#### Conclusion

One of the continuing problems associated with ecosystem management is the lack of rigorous definitions for its associated concepts. This is not uncommon for an evolving body of theory and practice, and in fact may be symptomatic of the vibrancy of forest science and management. Even definitions of ecosystem management itself tend to lack rigor. Typically they are expressed in generalities, as in Robertson's (1991) definition reprinted in the introduction to this paper, or in terms of objectives as in my own description which immediately follows Robertson's. Nonetheless, these descriptions do have common elements. Ecosystem management is meant to be holistic, incorporating both sociopolitical and biophysical systems. It is meant to focus not on the outputs that flow from the forest, but on the condition of the forest that remains. It is meant to be sustainable, to preserve biodiversity, to reflect the natural processes so that ecosystem integrity is maintained at the landscape level. It is meant to be responsive to the broad range of social values in a way that is equitable to both urban and rural resource-dependent communities.

This list of agreed-upon elements contains a number of vague terms that are troubling to some foresters: holistic, sustainable, biodiversity, ecosystem integrity, social values. In a recent issue of <u>Journal of Forestry</u>, for example, Hill (1993) asks: "What are the key elements of 'forest condition' to be maintained in meeting ecosystem management goals? ... What is a landscape? How large is a landscape?" (p. 34). All are good, basic questions. Foresters' unease is great enough that a committee of the Society of American Foresters chose to omit the word "sustainability" from its land ethic canon because no one could agree on what it was that was to be sustained (Craig 1992).

The attempt in this paper was to provide some structure to at least one of these slippery concepts. A definition of social acceptability was offered that considered such questions as who does the accepting, who the decision is made, what the consequences of a

decision can be, and how to <u>observe</u> acceptability through its consequences. Much more can be said on this issue. Brunson (1993) offers an expanded discussion of the implications of the social acceptability judgment process for ecosystem managers. The papers that follow examine that same issue, and many others. A definition does not solve any of the problems associated with the social acceptability of natural resource management; however, one can hope that it provides a useful framework for beginning the problem-solving task.

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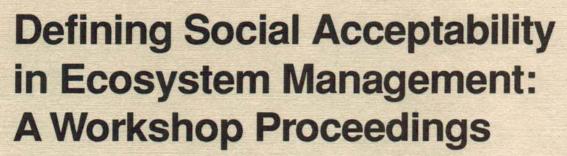


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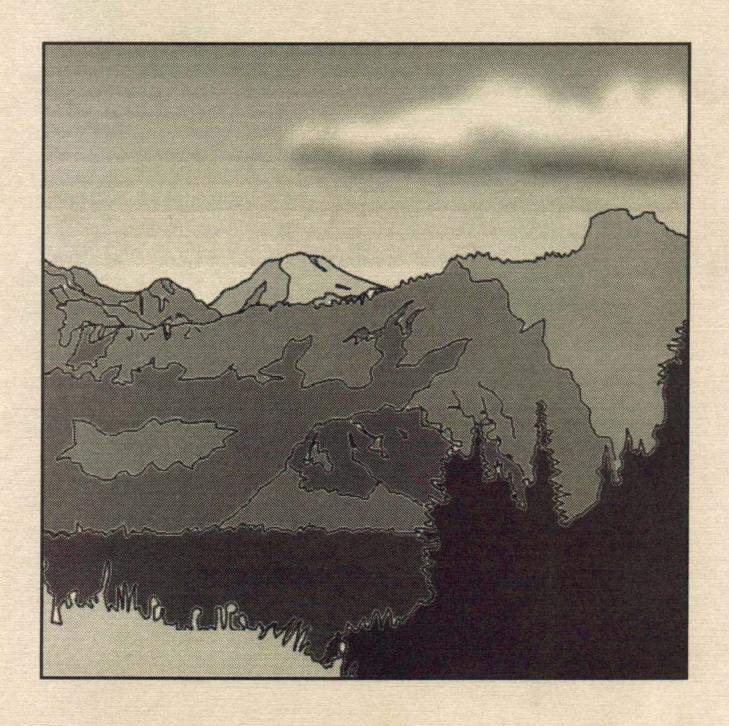
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