

## AN ABSTRACT OF THE THESIS OF

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This thesis examines the application of findings from the social psychological field of procedural justice to public involvement in natural resource decision making. The methodological approach involves examining the literature of each of the fields and developing a synthesis applicable to public involvement. The review of public involvement literature reveals a variety of reasons for involving the public in decision making, but little attention to the effects of procedures on participants. However, a comparison and synthesis of the principle findings of the two disciplines indicates important procedural elements for public participation programs, including (1) procedural justice supports process related goals for public involvement; (2) public participation procedures should be inclusive; (3) public participation procedures should provide for interactive approaches; (4) procedural preferences are situationally specific; (5) decision makers must provide clear justification for their decisions; and (6) decision makers must maintain the appearance of impartiality. These findings lead to a rejection of the positivist ideology that has dominated public involvement literature and the development of a new theory of public involvement that recognizes the importance of both outcomes and procedures. Finally, the thesis discusses issues regarding

the application of this theory to public involvement programs, including issues relating to interest groups, non-participants, historical mistrust, the meanings of satisfaction and dissatisfaction, and measures of fairness.

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Procedural Justice and Public Involvement  
In Natural Resource Decision Making

by

Rick Lawrence

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Rick Lawrence, Author

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## **Procedural Justice and Public Involvement In Natural Resource Decision Making**

### **I. INTRODUCTION AND RESEARCH METHODOLOGY**

During the last two decades, formal public involvement has become an integral part of natural resource decision making. Many reasons have been advocated for increased citizen participation (see Chapter 2), and high hopes have been held for the promise of involvement improving the quality and acceptability of decisions. However, the reality of public involvement has generally been viewed as falling far short of the promise. For at least the last 20 years, during which time public involvement in the national forest planning process has been legally mandated, the Forest Service has been widely criticized for its public participation programs (U.S. Congress, Office of Technology Assessment, 1992). Further, while the Forest Service has been the most visible of the natural resource management agencies, there is no evidence that other agencies have fared better, whether at the federal, state, local, or private level. In fact, probably no other natural resource agency has made greater efforts to improve public involvement programs, and the Forest Service decision-making structure has been suggested as a model for other agencies to emulate, notwithstanding widespread criticism (Wondolleck, 1988).

Criticism of public participation efforts has rarely arisen from lack of agency procedures. Millions of dollars and extensive manpower have been devoted to these efforts (Gericke, 1992). Yet a common lament from resource managers has been that they have done the best they know how, followed all of the guidebooks, and complied with every law, and still they are attacked for the nature of their decisions and their unresponsiveness to public

desires. The Resources Planning Act experience has been cited as a prime example (Lyden *et al.*, 1990). An increasingly common rationalization has been that, if managers are attacked by all sides of an issue, they must have done a good job of balancing public opinion (Wondolleck, 1988).

This paper will demonstrate that defining success as "equilibrated dislike" is not a necessary state of affairs or even a particularly useful goal. Rather, the perpetuation of positivist traditions in natural resource decision making has resulted in approaches that emphasize decision outcomes and exclude key procedural elements of public involvement. It is the theory of this paper that this exclusion has been a serious flaw in how natural resource decision processes have been viewed.

The first half of this century viewed natural resource decisions within the positivist framework (Behan, 1966).<sup>1</sup> Decisions were seen as answers to technical problems. Thus, they were the province of the experts, and managers could be relied on to manage resources through the application of their scientific expertise. Political changes in the 1960's lead to increasing distrust of agency discretion and a demand for public involvement (U.S. Congress, Office of Technology Assessment, 1992). Resource managers, trained to have faith in technical solutions, initially viewed this requirement as an educational process (Bolle, 1971). It was assumed that, if the public was educated as to why the managers were making the

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<sup>1</sup>The positivist tradition was an outgrowth of the progressive era of the late nineteenth and early twentieth centuries. This period was the beginning of the "technological age wherein scientific methods of management and decision-making were perceived as a godsend that would improve living conditions, create efficiency, and overcome political corruption" (Wondolleck, 1988:23). Thus, entrusting federal lands management to trained professionals was a means of realizing the benefits of technology and controlling the corruption and mismanagement that could arise from a political bureaucracy.

decisions they were making, the public would accept those decisions. Resource managers soon discovered that this assumption was incorrect. Education was seen as a sales effort, and the public wasn't buying.

Early studies of these public involvement programs discovered another important role for the public (Hendee *et al.*, 1973). As part of the affected environment, a source of additional expertise, and the origin of resource management goals, the public was a source of data for decision making. Thus, decision making was still viewed as a process subject to technical approaches, the fault of previous approaches being the lack of complete data.

These approaches to natural resource decision making are outcome oriented. With outcome driven approaches, the over-riding purpose of the decision-making process is to arrive at the "proper" decision. What constitutes a proper decision may be influenced by political factors (which can be input as additional data), and may have to be explained to a concerned public. However, if this proper decision can be arrived at, the resource manager has succeeded.

The outcome driven approach to natural resource decision making fails to consider effects of processes on the public that are not related to outcomes. As will be examined in this paper, social psychology has discovered that decision-making processes affect the public in ways separate from, and in addition to, decision outcomes. In other words, even if the resource manager makes the "proper" decision, the manner in which the decision is made will have effects on the public. Research regarding this concept, called procedural justice, has revealed that these effects include, among other things, satisfaction of participants with the decisions and the public involvement process, compliance with decisions, and public opinions

of resource managers. Thus, process elements -- largely ignored by the public participation literature -- have been an important missing element. This is not to say that attention to procedural justice at the expense of outcomes is the answer to the public involvement dilemma. Rather, it is an essential element for creating a successful theory and practice of public participation.

Natural resource decisions are typified by decisions where interested parties can be characterized as winners and losers. (In some cases, such as President Clinton's Northwest Forest Plan, substantially all parties may characterize themselves as losers.) In such cases, attention to procedural justice effects is critical. Research discussed later in this paper has revealed that the reaction of a participant to procedural factors is especially strong when the participant views the outcome as unfavorable. This means that, in natural resource decision making, where there will almost always be participants who view the outcome as unfavorable, a belief that the procedures are fair may significantly reduce the participants' negative reactions to the decision, while a belief that the procedures are unfair may significantly increase the negative reactions.

The fields of public involvement and procedural justice have developed in fundamentally different ways. As will be explored in detail below, although the involvement of the public in governmental decision making has developed primarily as a result of legal and regulatory requirements, deriving in part from basic principles underlying our democratic society (Knopp and Caldbeck, 1990), the development of its theories and methodologies has been haphazard at best (Wengert, 1976). Procedural justice, on the other hand, which explores the importance of procedures in decision making as compared to outcomes, has

developed relatively recently in a very methodical manner. In addition, public involvement literature generally has been concerned with practical applications, while procedural justice studies have been largely theoretical.

The research methodology utilized in this paper was to analyze and synthesize the public participation and procedural justice literature, and based on this synthesis analyze theoretical approaches to public involvement. Thus, the data input for analysis was provided by the literature reviews.

The review of public participation literature was initiated with a review of literature contained in previously developed bibliographies. A reverse branching search was then conducted, where references in reviewed literature were used to expand the search chronologically backward. A search for literature either omitted from or more recent than the previous bibliographies was conducted using key-word and author searches of computer databases. Because of the massive volume of literature in this field (estimated at over 1,000 items), some selection of literature was necessary, and an attempt was made to differentiate literature based on research or theory from unsubstantiated opinion. Further, emphasis was placed on literature published after 1969, when the National Environmental Policy Act was adopted.

The review of procedural justice literature was initiated using references from Lind and Tyler, *The Social Psychology of Procedural Justice* (1988), which contains a comprehensive review of procedural justice research through its date of publication. A reverse branching search and computer database search was conducted similar to the public

participation review. The relatively limited volume of literature in this field (approximately 100 items) permitted an attempt at a comprehensive search.

All reviewed literature was entered into a computer database and categorized by key words referencing concepts, findings, and methodologies. This approach facilitated the organization of the literature and the eventual extrapolation of principle findings in each of the fields. These principle findings were then systematically compared across fields for common, related, or inconsistent findings. Finally, the results of this comparison provided the basis for development of public participation theory.

The organization of this paper reflects the foregoing methodology. Any development of public involvement theory or procedures is necessarily based on expressed or implied public involvement goals. Therefore, it is these goals, and their relationship to procedural justice, that will be discussed in the next chapter. Following the discussion of goals, Chapters III and IV are reviews of the literature in each of the fields, focusing on the history, development, and principal findings of each field. Chapter V then explores areas of convergence of previous procedural justice findings and public involvement goals and findings. Based on these areas of convergence, Chapter VI presents a new theory of public involvement based on procedural justice findings and complementary to existing public participation theory, and examines the policy implications of this new theory. Finally, Chapter VII examines some of the major questions that will need to be answered by future research for procedural justice theory to be successfully incorporated into public participation programs.

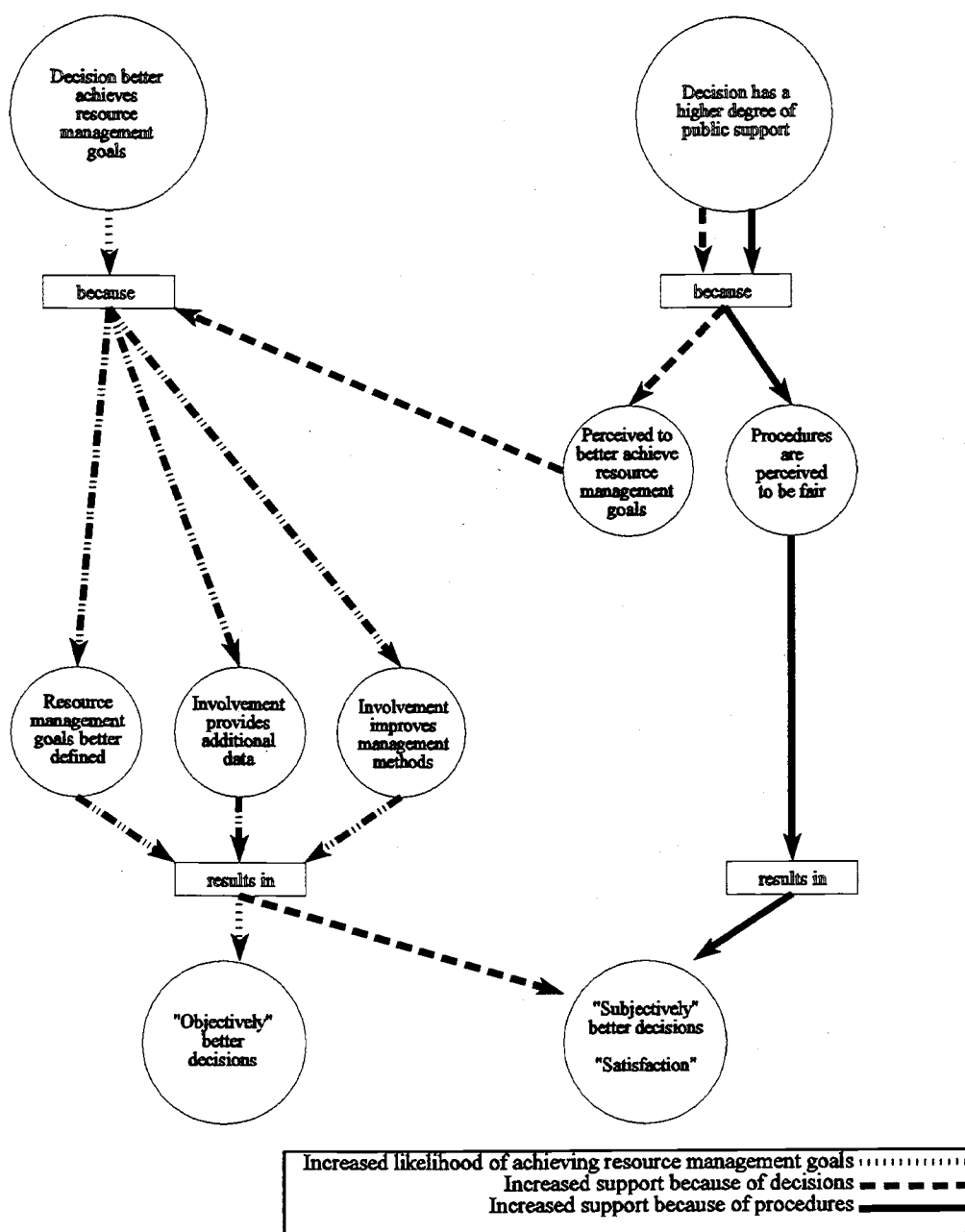
## II. PUBLIC INVOLVEMENT GOALS

A review of public involvement literature reveals that most of this literature can be divided into three categories -- discussion of the goals of public involvement, proposals of methods for conducting public involvement, or evaluation of public involvement methods. However, all public involvement literature expressly or implicitly involves goals. Public involvement methods generally are designed to achieve stated or implied goals and are evaluated on how well they achieve these goals. Failure to clarify goals will result in ill defined or unstructured methods or the application of inappropriate methods. Certainly, if the goals of public participation are not known, it is impossible to evaluate the methods used because no standards exist against which the methods can be judged. For these reasons, all literature on methods or evaluation is based on express or implied goals.

If asked why the public should be involved in natural resource decision making, some decision makers might respond "So that we can make better decisions," while others might say "So that our decisions are less open to challenge." (We will, for the moment, ignore the cynical decision maker who might respond either "It's required" or "They shouldn't be involved.") However, these responses beg the question. What constitutes a better decision? Generally, the literature views the answer to this question as either the decision is more likely to achieve resource management goals or the decision has a higher degree of public support. Figure 1 represents graphically the relationships among the public involvement goals discussed in this section.



Figure 1. Goals of Public Involvement.



### **Increased Likelihood of Achieving Resource Management Goals**

The left hand side of Figure 1 (shown by dotted and combined dotted and dashed lines) represents attempts to use public participation to achieve decisions that better achieve resource management goals. This is an attempt to achieve "objectively" better decisions. An example of a decision that is more likely to achieve resource management goals is an attempt to develop a recovery plan for an endangered species. Involving the public may result in additional information regarding the species that is known by certain members of the public, but not to the decision maker. Involving the public may therefore result in a more informed decision that is more likely to result in the species recovery. This goal for public involvement is an attempt to achieve objectively better decisions (Cuthbertson, 1983).<sup>2</sup>

This goal has been noted as particularly important in the field of social impact assessment (Burdge and Robertson, 1990). In this context, public involvement has been cited as critical for educating the impacted community, for providing input on impacts, as a catalyst for community self-evaluation of how to cope with change, as an ongoing data-gathering tool for social impact variables, and for preparing alternatives. Thus, for these authors, the public primarily is used by decision makers for data gathering. In Figure 1, this would be the goal of (a) a decision that better achieves resource management goals because (b) involvement provides additional data, which results in (c) "objectively" better decisions.

Other authors have recognized that the political aspect of decision making means that planning both affects and is affected by public input (Cortner and Shannon, 1993). Thus,

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<sup>2</sup>However, these objectively better decisions are based on resource management goals that ultimately are established on a subjective basis (*i.e.*, do we want to protect the endangered species?).

public participation results in necessary input for a decision to be made within its scientific and political context. In this context, public involvement would result in better decisions because resource management goals, having been set within their political context, are better defined. The path through Figure 1 is the same as in the preceding paragraph, except step (b) reflects that resource management goals are better defined.

### **Increased Public Support**

The right side of Figure 1 represents an alternate use for public involvement. In this context, public involvement is used to achieve decisions that have a higher degree of public support. These are subjectively better decisions. Reviewing the literature reveals that this concept is more problematical. The characteristics of a decision that result in public support are not necessarily well understood or agreed upon. This has been the source of a large amount of the public involvement literature, and is an area where procedural justice research will be particularly helpful.

Numerous authors have focused in a general manner on public involvement as a means of making decisions that will have a higher degree of public support. Some of the authors expressing this goal of public involvement have viewed public involvement primarily as a means of building public trust that might otherwise be lacking (Heberlein, 1976; Kweit and Kweit, 1987), although the nature of this trust may be difficult to evaluate. However, Creighton (1983a) noted a lack supportive research for the conventional wisdom that a participative decision making process bestows legitimacy on the decisions and that, when people are better informed, they are more likely to accept a decision. Of significant concern

to those who express the public support goal of public participation is the finding of Wondolleck (1988), based on case studies, that, although the public participation process leads to an airing of public concerns, methods used are not designed to accommodate concerns in ways that satisfy participants.

### **Effect of Decisions on Public Support**

Other authors have attempted to explore the issue of why public participation might increase public support for decisions. One reason may be that public involvement leads to decisions that are perceived to better achieve resource management goals, and that such decisions evoke wider public support (Lassey and Ditwiler, 1975). (This approach is represented in Figure 1 by the dashed and combined dashed and dotted lines.) Thus, public support may arise from a subjective belief by the public that the decision better achieves resource management goals, even though the decision may be objectively worse -- public perception is not necessarily correct. This goal for public involvement looks very much like attempts to achieve objectively better decisions, but is based only on perceptions. As will be discussed later, there are important interactions between objectively and subjectively better decisions.

Various writers have noted that natural resource managers are not trained in discerning society's goals for the natural resources they are managing (Delli Priscoli, 1989; Henning, 1987; Shaffer, 1975). Thus, if resource managers could better understand what society expects regarding the resources they are managing, the managers could apply their technical expertise toward achieving these goals, or could better inform the public of the

technical or legal implications of these goals. While this statement obviously over-simplifies actual processes and ignores factors such as competing interest groups (which results to no clearly defined "societal" goals) and lack of goal related decision-making space for the managers (as where legal requirements dictate the managers' goals), the concept is that decisions based on a better understanding of the public desires will result in a generally more satisfied public. Tracing this analysis through Figure 1, the goal is for (a) a decision that has a higher degree of public support because (b) it is perceived to better achieve resource management goals because (c) resource management goals are better defined, which results in (d) "subjectively" better decisions.

In addition to the public being uniquely the source of public goals, the public can also be the source of valuable technical information and ideas. Resource managers do not have a monopoly on information useful in making natural resource decisions or on useful ideas for achieving natural resource goals. Thus, as noted above, public involvement is beneficial from a technical perspective, but, as some authors have noted, this improvement in technical decision making may in turn lead to increased public satisfaction with the outcome (Hendee *et al.*, 1973). The path through Figure 1 is the same as in the preceding paragraph, except at step (c), where in this case public involvement either provides additional data or improves management methods.

To this point, this discussion of the effects of decisions on achieving increased public support has emphasized altering decisions based on public input. However, public participation can also achieve this goal by its effect on public perceptions of the decisions. Thus, public involvement may increase public satisfaction with outcomes because of the

“selling” process that takes place. Public involvement has been advocated for the Forest Service as a means of educating the public and building support for programs (Fairfax, 1975), in addition to providing the Forest Service with information as to public preferences. Although the concept of public participation as primarily a tool for selling resource managers’ programs is now rarely addressed by authors (who may view it as politically incorrect), it may still be a prevalent view among many resource managers. A fairly recent evaluation by the Forest Service of public involvement efforts for the Olympic National Forest (Sayre, 1987) judged the efforts to be a success because of the Forest Service’s ability to meet with the public and clarify its draft plan. Exchanges with the public were used primarily to refine future presentations, not modify the draft plan.

### **Effect of Procedures on Public Support**

The solid lines leading down the far right side of Figure 1 represent a use for public involvement that has received relatively little attention in the literature. This is the goal of obtaining increased public support because procedures for decision making are perceived as fair. This line, however, represents a procedural justice view of public participation. Procedural justice emphasizes the effects of procedures on participant reactions. As will be discussed later, use of fair procedures to increase positive reactions to decisions is a constructive use of the lessons of procedural justice.

A few authors have touched (expressly or implicitly) on the effects of perceived fairness of procedures on increasing public satisfaction. Thus, Tipple and Wellman (1989) have advocated a new role for the public forester as an implementer of the law, a **provider**

of a fair procedure for decision making, and a model participant. Bonnicksen (1985) has proposed using a "white box" computer-based decision-making tool that, by running simulations as part of the public input process, is intended to lead to higher satisfaction with decisions. Bolle (1971) noted, before public involvement was legally required, that lack of public involvement isolates the public and leads to resentment and dissatisfaction with decisions. This approach has been taken to the extreme of development of a computer decision making tool designed to determine what decision will result in the maximum aggregate satisfaction level for groups involved in the decision-making process (Stark and Seitz, 1988).

### **Interrelationships Among Goals**

The foregoing goals have been presented individually, but critical interrelationships exist among them. Most importantly, the various goals of public participation are not mutually exclusive. It is possible, and often the case, that public involvement proposals and programs will be designed to achieve more than one goal. However, it may also be the case that a public participation practitioner will find (or perceive) multiple goals to be incompatible. Conversely, an attempt to achieve a single goal might fortuitously achieve more than one goal. For example, an attempt to provide perceptively more fair procedures might involve increasing collaboration between the decision-making agency and the local community. This increased collaboration might, by happenstance but not by intent, result in decisions that better achieve resource management goals objectively and perceptually, thus achieving all public involvement goals.

Another important interrelationship among public involvement goals is that the nature of the goals may vary with the nature, and particularly the hierarchical level, of the decision to be made. For example, if a resource management goal has been established to preserve an endangered species, a dominant goal for public involvement may be to achieve objectively better decisions by improving data and methods for species survival. However, at the other end of the decision hierarchy, the use of public involvement to decide whether to preserve endangered species at all may be considered primarily a use to obtain better decisions by subjectively better defining resource management goals.

Notwithstanding these goal interrelationships, the review of procedural justice literature contained in Chapter IV of this paper demonstrates that the goal of providing fair procedures is necessary at all levels and in all contexts for successful public involvement programs.



### **III. HISTORY AND PRINCIPAL FINDINGS OF PUBLIC INVOLVEMENT LITERATURE**

#### **History and Development of Public Involvement.**

The concept of involving the public in governmental decisions dates back to the founding principles of our nation (Wengert, 1976). Nevertheless, until the last two to three decades natural resource decision makers have operated largely out of the public limelight. This situation arose from a view of the natural resource decision maker, such as Forest Service personnel, as individuals trained to deal with resource problems through scientific solutions (Behan, 1966). Thus, these trained staffs were trusted to carry out their legal management mandates largely without public scrutiny.

This is not to say that resource decision makers never consulted the public, for in fact there was a long history of public consultation (Robinson, 1975; Fairfax, 1975). However, because this use of public input was discretionary, it was also generally informal and infrequent.

During the 1960's and 1970's a perception developed that natural resource decision making was not responsive to changing public values, and that decision-making procedures were inadequately designed to deal with these changes. Procedures were seen as not providing adequate voice to public interests and not providing fair procedures for the inclusion of public views. A series of laws passed during this period changed the basic structure of how natural resource decisions would be made on federal lands.

While not mandating public involvement, the Multiple-Use Sustained-Yield Act of 1960, 16 U.S.C.A. §§528-531 ("MUSYA"), contained new concepts of the role of resource

managers that inevitably brought forestry (and eventually other natural resource decisions) under the public eye. Specifically, MUSYA required the Forest Service to consider the relative values of the national forest resources in a way that would result in utilization that best met the needs of the American people. This was a tacit recognition that natural resource decisions involved, among other things, value judgments. Although realization would be slow in coming for many resource professionals (and is still far from universal today), it would become clear to many in the ensuing years that professional foresters were not trained to evaluate these relative values, and that public input was necessary. The American people needed to be consulted to determine what utilization of natural resources best met their needs.

The National Environmental Policy Act of 1969, 42 U.S.C.A. §4321 *et seq.* ("NEPA"), significantly changed the manner in which federal resource managers were required to conduct decision processes. NEPA required analysis and disclosure to the public of the environmental effects of every major federal decision significantly affecting the environment. The Executive Order implementing NEPA stated that the purpose of disclosure of public information was to "obtain views of interested parties" (Nixon, 1970). Later, the guidelines issued by the Council on Environmental Quality and, in 1978, the regulations promulgated under NEPA, mandated public notice, meetings, and other procedures throughout the NEPA process (40 C.F.R. §1500 *et seq.*). Thus, through NEPA, its regulations, and court interpretations, by the end of the 1970's public involvement was a central part of the analysis of the effects of substantially all significant federal natural resource decisions (as significance was measured by almost any interested party).

With respect to the National Forests, the National Forest Management Act of 1976, 16 U.S.C.A. §1600 *et seq.* ("NFMA"), went beyond public involvement in the analysis of consequences. NFMA required the Forest Service to involve the public in planning and decision making. A similar requirement was included in the Federal Land Policy and Management Act of 1976, 16 U.S.C.A. §1701 *et seq.*, with respect to Bureau of Land Management administered lands.

With the burgeoning of laws requiring public involvement in natural resource decision making came a growth in literature on the subject. Perhaps surprisingly, at a very early stage attempts were made to carefully analyze the Forest Service public involvement programs and provide pragmatic suggestions based on clearly stated theories (Hendee *et al.*, 1973). However, any hope that the study of public involvement would generally follow this pattern was misplaced. Public participation literature developed primarily as a reaction to legal requirements and the practices that resulted from those requirements. Therefore, it was necessarily reactionary and should not have been expected to develop in a systematic, organized manner.

As the 1970's progressed, it was noted that little research was occurring, and even a public involvement ideology had "not been systematically organized or neatly structured" (Wengert, 1976). This lack of research or ideology, however, did not result from a lack of literature or opinions. By the mid-1980's it had become apparent that certain principles of public involvement had become widely accepted, but were generally not based on a sound theoretical or research basis (Creighton, 1983a). Over the next 12 years, some research and

normative theory would be developed, but the field remains essentially unstructured with unsupported opinion dominating attempts to provide organized theoretic bases or research.

### **Principal Findings.**

Although the public involvement literature has developed in a patchwork manner, a review of this literature reveals that certain findings have achieved widespread acceptance among researchers. These findings either have been based on well documented theoretical constructs, substantial research, or both. This section will examine certain of these concepts. The principles discussed are not necessarily exhaustive, but are an attempt to select those that have achieved widest support in the literature.<sup>3</sup>

#### **Public Participation Legitimizes Decision-Making Processes.**

One of the oldest tenets of public participation is that it bestows legitimacy on the decision-making process and therefore on the decisions (*e.g.*, Bolle, 1971). In the early 1980's, Creighton (1983a) referred to this concept as a commonly accepted principle that made up part of the "theology" of public participation, but on which research was lacking. This finding has subsequently found additional support in theory and research.

Participation as a source of decision legitimization is founded theoretically on democratic principles. Decisions made with the participation of the affected public have a higher degree of validity than the same decisions arrived at authoritatively. Thus, Bolle

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<sup>3</sup>Substantially all of the studies cited in this section, as well as most other natural resource public involvement studies, involve the U.S. Forest Service. However, the conclusions are generally applicable by analogy to other natural resource decision makers.

(1971) noted that public participation prevents isolation of publics, which in turn leads to public resentment. This resentment is a form of delegitimizing.

Several studies have supported the legitimizing effects of public participation. A study was conducted to evaluate public participation based on responses to questionnaires by participants (U.S. Department of Agriculture, Forest Service, 1990). Among other findings, respondents generally judged effectiveness by effects on decisions and commitment to plans. Thus, effective public participation programs resulted in a higher commitment by the participants to the resulting decisions.

More recently, a national survey was conducted to determine the level of and reasons for confidence (or lack of it) in the Forest Service by public participants (Dixon, 1993). Results indicated that 43% of respondents had a low level of confidence in the local office and 55% had a low level of confidence in the agency at the national level. The most important determinant of confidence was participants' judgments of procedural fairness, as compared to benefits received, policy preferences, or other factors. This study is the first to relate public participation to procedural justice concepts, although the emphasis was on confidence, rather than the more common object of procedural justice studies, satisfaction.

While the legitimizing effect of public involvement is still widely accepted and has received some inferential support in the research, this is a finding that remains to be rigorously tested. However, as will be discussed in Chapter V, procedural justice research provides a strong theoretical and research basis to test this concept in the natural resource decision-making field.

### **Public Participation Programs Are More Successful If More People Participate.**

Public participation practitioners and researchers have long assumed that increased participation can be equated to increased success (Creighton, 1983a). Thus, the various agencies charged with involving the public in decision making have spent substantial time and money trying to increase the number of participants. However, little research or theory has been applied to this precept.

In fact, the one study directly applicable to this hypothesized relationship found the opposite. In 1977, a study of participant reaction to Forest Service public involvement procedures on the Big Levels Unit in Virginia was reported (Twight, 1977). The implied goal of public involvement in this study is to achieve decisions with higher support through the use of better procedures, resulting in participant satisfaction. The author found that the Forest Service's "get out the vote" approach to maximizing local and rural public involvement resulted in a disproportionate percentage of alienated participants. These participants were seeking an opportunity to express resentment. It was believed to be unlikely that these participants would support any type of federal management. The study concluded that efforts to involve this group might have been counterproductive and was a misdirected effort by the Forest Service.

However, as discussed in Chapter II, evaluation of public participation programs is dependent on stated goals. Although Twight found decreased satisfaction among participants, actual and perceived quality of decisions was not evaluated. Further, the study failed to provide any attempt for experimental control. Thus, although the increase in participation did result in a higher number of dissatisfied participants, Twight did not test

whether those participants were more satisfied with the procedures or results than if they had not participated at all. Procedural justice research strongly suggests the hypothesis that the alienated participants in the Twight study would have a lower level of dissatisfaction as a result of their participation. Thus, to the extent that research supports the theorized advantages of public participation, generally increased participation will be expected to increase these advantages.

### **Public Participation Should Begin Early and Continue Throughout the Process.**

For federal land managers, public involvement is generally required at various specified stages throughout the NEPA process. Aside from this legal requirement, some of the earliest research has supported the need for this approach as a basic requirement for successful public involvement.

The first reported study on Forest Service public involvement was an extensive examination conducted in the early 1970's under the auspices of the Forest Service (Hendee *et al.*, 1973). This study of public participation on 27 National Forests was conducted using a 20 page questionnaire answered by the forest supervisors and their staffs. The questionnaires were followed by two hour interviews with the study team. The primary goal of public involvement recognized by the study was to make "better decisions, primarily through improved understanding of the relative values the public places on alternative uses of the National Forests" (Hendee *et al.*, 1973:13). In Figure 1, this goal would be to reach decisions that better achieve resource management goals because goals are better defined, resulting in "objectively" better decisions.

Among the Hendee *et al.* findings was that public involvement must be considered at five stages of the decision-making process: issue identification, collection, analysis, evaluation, and decision implementation. A review of these stages indicates the need for involvement throughout the process.

While legal requirements have reduced the need for authors to express this principle, use of public involvement at state and local levels and by private industry does not always carry this same requirement. Thus, involvement throughout the process should not be presumed. Recent literature has reemphasized this need (Behan, 1988; McMullin and Nielson, 1991). As public involvement continues to expand in the non-federal arenas, the lessons learned in the Hendee *et al.* study and subsequently will be applicable.

#### **Public Participation Should Be Inclusive.**

There has been a long standing belief that public participation programs should encourage involvement from a wide variety of interest groups and backgrounds. The belief that the failure of a significant ethnic or social group to participate is a sign of failure of a public involvement program is one of the commonly accepted principles listed by Creighton (1983a). However, this is an area where more research can be found than many other areas.

Curiously, a particular problem arises with non-inclusive public involvement programs when an agency is responsive to public input. Although, as noted below, it is important for agencies to use public input in the decision-making process, if the program is not inclusive, the input may well be non-representative. Decisions based on this input may be responsive



to the desires of a small group, while failing to fulfill the needs or wishes of a larger affected public (Freudenberg, 1983).

In the Hendee *et al.* (1973) study cited earlier, this issue was recognized as a significant concern and the source of a recommendation. This study noted that "Disadvantaged groups, because of economic status, education, language barrier, cultural tradition or other factors, often lack the influence and expertise to participate as effectively as other groups, even on issues that affect them." (Hendee *et al.*, 1973:78.) Nevertheless, the study found that Forest Service officials were aware and concerned with the problem. Special efforts to increase disadvantaged group representation were recommended.

However, recent research raises questions on whether progress has been made. A study was conducted to determine the characteristics of public involvement participants using a mail questionnaire of a random sample of persons who had expressed an interest to the Forest Service of being informed of public participation activities in four Pacific Northwest forests (Force and Williams, 1989). Participants tended to be well educated, have relatively high income (over \$25,000), and be conservative more often than liberal (although the largest group was moderate).

Extreme proposals to make public involvement more inclusive have included a proposal to have public votes on land use allocations (Knopp and Caldbeck, 1990). However, the demographics of other elections suggest that even this method can be expected to result in underrepresentation of certain groups.

On the other hand, not all authors have proposed more inclusive public participation methods. Behan (1988) has suggested management of national forests for their respective

constituencies, which are defined as those who are interested enough to participate. This approach would necessarily and intentionally ignore the silent minorities and majorities. Sirmon *et al.* (1993) has put forth a similar proposal for decision making within "communities of interest". However, if these communities of interest could be expanded to include traditionally unrepresented, but affected, groups, the decision-making process could be made more inclusive.

### **Public Participation Input Should Be Used In the Decision-Making Process.**

There is widespread agreement in the public involvement literature that public involvement programs are not fully effective if public input is not actually used in the decision-making process (Benfield, 1985). Thus, while Hendee *et al.* (1973) found that Forest Service officials commonly viewed public involvement objectives as determining public support and educating the public, neither of these objectives necessarily results in using input in the decision-making process. More recently, a Forest Service evaluation of public involvement efforts on the Olympic National Forest (Sayre, 1987) concluded that the process was a success because the Forest Service was able to present its position and clarify misunderstandings. No evaluation was given to the substantive effect of public input on decision making.

Other reasons exist for using public input in decision making. A recent study indicated that a perceived lack of use of input results in public disaffection and decreased future input (Lyden *et al.*, 1990). Questionnaires were sent to 1274 U.S. Forest Service and 914 public participants in the Resource Planning Act planning process, with 61% and 62% response

rates, respectively. Most participants were dissatisfied with the process because of a perceived lack of effect on agency plans. Most respondents were willing to spend more time if they thought the agency listened to them (77%). This was consistent with the results of a 1980 Harris poll (71%).

Use of public input, of course, does not mean that every item of input will result in a plan modification. Rather, each item of input should be analyzed as a relevant expression of public opinion or knowledge that must be weighed as part of the decision-making process (Wondolleck, 1988).<sup>4</sup>

#### **Controversial Issues Should Be Identified and Addressed.**

There may be a tendency by natural resource decision makers (and others) to avoid controversial issues, especially when dealing with the public. A review of Forest Service public involvement in the RARE II decisions was reported in 1987 (Mohai, 1987a; Mohai, 1987b). The author compared the conflicting theories that (1) the Forest Service is molded by professional ideology and relatively uninfluenced by public participation or (2) the Forest Service is responsive to interest groups. The study concluded that the Forest Service responds to public input, but only to avoid conflicts. However, these responses are designed in a manner that aims to support agency positions existing prior to the input.

A study of public involvement in the preparation of forest plans evaluated public involvement success based on standards commonly espoused in public involvement literature and legal requirements (Blahna and Yonts-Shepard, 1989). This study of planning by 13

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<sup>4</sup>Chapter V will discuss other reasons for including public input in decision making suggested by the procedural justice literature.

forests was performed using questionnaires and, in six cases, site visits. The study concluded that in many cases some of the public participation goals of the National Forest Management Act were not met because of, among other factors, a desire to avoid controversy. Thus, attempts to avoid controversy were, in many cases, counter-productive.

### **Interactive Public Involvement Methods Are Desirable.**

A large amount of public participation consists of letter writing and public meetings. Force and Williams (1989) found that, of 16 participation methodologies used by the Forest Service, participants most used Forest Service presentations, response forms, personal letters, and telephone calls. Of these four methods, only telephone calls are likely to be interactive, with some level of give and take between the public and the agency, and even this method does not provide interaction among potentially divergent publics.

This tendency toward non-interactive methods persists in spite of a preference expressed in the literature and by the public for interactive public involvement (Blahna and Yonts-Shepard, 1989). Force and Williams (1989) found that of 28 possible participation methods to choose among, the top five preferred by the sampled potential participants were: (1) citizen participation on Forest Service policy-making bodies; (2) formal public hearings; (3) surveys of citizens' attitudes and opinions; (4) open public meetings; and (5) meetings held for residents of a specific community. The first, fourth, and fifth of these methods are likely to be interactive.

### **Professional Resistance Is a Major Source of Public Involvement Failure.**

Perhaps the most often documented source of failure of public involvement is resistance by agency decision makers to meaningful public input. Interestingly, the Hendee *et al.* (1973) study found a high degree of organizational commitment to public involvement, especially at the forest level. This high commitment may have coincided with the view of public involvement as a means for educating the public, rather than as a method for cooperative decision making. It is also important to note that this reaction existed shortly after NEPA's adoption and before the passage of NFMA. Therefore, public involvement was not yet mandated at current levels.

Subsequent studies have produced results in marked contrast to this early examination. The U.S. Congress, Office of Technology Assessment (1992) found that professional resistance in the Forest Service to public ideas was one of the major sources of failure of public participation. This same phenomenon has found anecdotal support throughout the public participation literature (Bolle, 1971; Wondolleck, 1988; Magill, 1991).

Professional resistance is the result of charging public involvement to resource decision makers who have been trained in scientific and technical management of resources without equivalent training the social scientific role of the public. A review of the goals of public involvement discussed in Chapter II and diagrammed in Figure 1 reveals the important role of public involvement as an adjunct to professional expertise. The public is the unique source of ultimate resource management goals. In addition, the public can often provide additional data and methodological expertise. At least as important is the effect public participation has on legitimizing decisions. As will be seen in Chapters IV and V, the effect

of public participation on public satisfaction with decisions is critical. Training of natural resource decision makers in these important roles for public involvement is necessary to break down entrenched resistance.

Professional resistance is probably an even larger problem at state, local, and private levels, where public involvement requirements are often less stringent or not required. In these instances, professional resistance may do more than reduce the effectiveness of public participation -- it may result in losing the advantages of public involvement entirely.

### **Public Participation Is Necessary to Establish Resource Management Goals.**

Numerous authors have stressed the central role of public involvement in setting resource management goals (Hendee *et al.*, 1973; Fairfax, 1975; Shaffer, 1975; Henning, 1987). Resource management goals are ultimately based on relative value judgments. As noted above, resource managers generally receive technical training and are not in a position to make these value judgments for society. Rather, the public is the unique source of values on which management goals must be based. Public participation enables decision makers to elicit information on public values, evaluate these values in an interactive setting, and determine resource management goals.

### **Public Participation Methods Should Be Adapted to Different Situations.**

It is not surprising, given the variety of issues involved in natural resource decision making, that no one method, or series of methods, is right for every situation. This realization was included in the recommendations of the Hendee *et al.* (1973:xii) study, which stated "The kind of techniques used to secure public involvement should be based on specific objectives

for the particular issue at hand.” The same conclusion was reached by the U.S. Congress, Office of Technology Assessment (1992) 19 years later.

Guidelines for determining what method to use in a given situation have been more difficult to develop. Research using the Vroom and Yetton model to determine desired degree of participation (Thomas, 1990; Sample, 1993) has proposed an approach that would vary the degree and nature of public participation depending on a sequential analysis of several key attributes. The attributes were chosen with the combined goals of raising the quality of decisions (for example, by providing the decision maker with needed data or providing a more time efficient method) and developing acceptance of, and commitment to, decisions by participants. However, this method only suggests the general nature of public involvement, and does not direct the user to specific public involvement methods. Force and Williams (1989) have listed 28 different types of public participation methods currently in use. Therefore, even with the use of the Vroom and Yetton model, choosing the right public participation tool for a specific decision-making task still can be daunting.

#### IV. HISTORY AND PRINCIPAL FINDINGS OF PROCEDURAL JUSTICE LITERATURE

##### **History and Development of Procedural Justice.**

The social psychological field of procedural justice was launched by John Thibaut and Laurens Walker's book, *Procedural Justice: A Psychological Analysis* (1975). Procedural justice addresses the importance to persons with a stake in decisions of the procedures leading to those decisions. Prior to Thibaut and Walker's pioneering work, the emphasis in studies of justice in decision making was on distributive justice. Distributive justice is based on the principle that participants are primarily concerned with the outcomes of decisions -- "Did I get the results I sought or expected or feel are fair?" Thibaut and Walker challenged the concept that distributive justice is the sole aspect of decision making that determines participant satisfaction. Their studies indicated that the procedures are also important and may be no less important to participants as outcomes. Thus, a participant may respond "I didn't get the result that I sought, but the procedures were fair, and I'm satisfied (or not extremely dissatisfied)."

Thus, unlike the field of public involvement, procedural justice did not evolve in reaction to ongoing demands and legal requirements. Rather, procedural justice originated with a working hypothesis as a theoretical basis, with laboratory studies providing the original testing of the hypothesis.

Thibaut and Walker's original work was based on laboratory studies using college students as subjects. While this methodology is still widely used in the procedural justice field (and in social psychology research in general), as theory developed and results were



corroborated by later studies, other methodologies were applied. These included scenario studies, field experiments, field studies, and correlational studies (Lind and Tyler, 1988:41-57). In **scenario studies**, study participants are given procedural scenarios, asked to imagine themselves in the scenario, and questioned about their reactions to the procedures. In certain circumstances (especially work related situations), it is possible to apply random experimental design to actual decision-making procedures, thus creating **field experiments**. **Field studies**, on the other hand, while applied to actual decision-making procedures, are used in situations where random experimental design is not possible or practical. Field studies generally examine responses resulting from changes in procedures or different responses of various groups of individuals. **Correlational designs** involve the statistical analyses of the relationships between procedures and attitudes or behavior. Surveys are correlational designs that generally involve a random population sample.

As a result of the manner in which procedural justice developed, researchers have used all of these methods, generally in a progressive order. Thus, results of laboratory experiments have been corroborated by other types of studies, raising the level of confidence in the supported findings. Since Thibaut and Walker's seminal work in 1975, almost 100 articles and books have been published in the procedural justice field. (This may be compared to at least five to ten times that number in the public participation field.)

### **Principal Findings.**

Most social scientists, as well as traditional social psychologists and substantially all natural resource managers, view people as evaluating their experiences based on outcomes.

According to this approach, a participant in a natural resource allocation process would view the process positively and be satisfied if the decision sought was achieved, or perhaps if the decision met expectations or was perceived as fair. For example, in deciding whether forestlands are to be reserved for spotted owl habitat or logged, a timber industry representative would be expected to be more satisfied as more logging was permitted, regardless of how that decision was reached. This theory has become known as distributive justice, because it focuses on how outcomes are distributed among participants.

The social psychological field of procedural justice postulates a different view of how people evaluate their experiences. Procedural justice suggests that people may be as interested in how decisions are reached as the outcomes themselves. Thus, according to this theory, the hypothetical timber industry representative mentioned above might be dissatisfied if the process used to arrive at the decision to permit logging did not agree with the representative's concept of a fair procedure, such as if the decision was made without the opportunity for the timber industry to express its views on the issues. This theory has been named procedural justice because of its focus on the perceived fairness of the procedures used to arrive at decisions.

Participant satisfaction with decisions and satisfaction with procedures combine to determine aggregate participant satisfaction. In each case, a participant may be faced with

a perceived fair or unfair decision and a perceived fair or unfair procedure. This leads to four possible scenarios defining satisfaction, as set forth in Table 1 below:

Table 1. Satisfaction scenarios

Procedure Fairness	Decision (Outcome) Fairness		
		High	Low
	High	Scenario I	Scenario II
	Low	Scenario III	Scenario IV

In some studies, procedure fairness is compared to outcome favorability, rather than outcome fairness. Alternatively, in certain studies a 2x2x2 matrix is used to compare procedural justice, distributive justice, and outcome favorability, allowing comparison of procedural and distributive effects under different outcome scenarios. However, from a participant's view, outcome fairness and favorability are likely to be highly correlated, as most participants will view their desired outcome as the fair outcome.

As noted above, the field of procedural justice is relatively new, having its origins in the work in the early 1970's by John Thibaut and Laurens Walker. Subsequent research by Thibaut, Walker, and many other social psychologists have created a rich body of literature in the past 20 years. The remainder of this chapter will explore major findings in procedural justice that may affect how we view and structure public participation in the future.

### **Procedural Justice Is a Significant Determinant of Participant Satisfaction.**

The first question faced by procedural justice researchers, and the question that has deservedly received the greatest amount of research, was whether the basic hypothesis of

procedural justice is supported -- are procedures significant determinants of participant satisfaction when compared with outcomes? This hypothesis was strongly supported by the early work of Thibaut and Walker (1975). Since that time, at least 11 laboratory and scenario studies (*e.g.*, LaTour, 1978; Walker *et al.*, 1979; Houlden, 1980; Greenberg, 1987) and 11 field studies (*e.g.*, Tyler and Folger, 1980; Lissak and Sheppard, 1983; Tyler *et al.*, 1985; Alexander and Ruderman, 1987) have supported this conclusion. These studies have generally found stronger effects of procedural fairness on participant reactions when outcomes are negative. This phenomenon may be the result of a "ceiling" effect, where participants with positive outcomes already have such high satisfaction levels that there is little room to measure the effects of additional factors.

The work of Thibaut and Walker and other early research was based on laboratory studies, generally using college students in simulated legal proceedings. This methodology received almost immediate criticism (*e.g.*, Damaska, 1975; Hayden and Anderson, 1979), centered on whether observed procedural justice effects were artifacts of the laboratory settings in which they were obtained. Although this methodology has received an energetic defense (Lind and Tyler, 1988), of more persuasiveness was the observation of procedural justice effects in other types of studies. Generally, field studies have shown procedural justice effects even stronger than found in the early laboratory studies.

The exclusive use of legal and dispute resolution settings in early studies also led to the question of whether procedural justice effects are robust across contexts. Subsequent studies, however, have demonstrated the same effects in organizational (*e.g.*, Folger and Greenberg, 1985) and political (*e.g.*, Tyler *et al.*, 1985) contexts as well. Thus, the research

now supports the generalizable conclusion that "In most situations procedural justice judgements lead to enhanced satisfaction; this effect is especially strong when outcomes are negative." (Lind and Tyler, 1988:207.)

Notwithstanding this general conclusion, several studies have produced anomalous results (Folger, 1977; Folger *et al.*, 1979). In these cases, participants had negative reactions to negative outcomes under perceived fair procedures. This effect has become known as the "frustration effect" and a number of authors have tried to explain under what conditions it occurs. Based on a review of previous experiments, Lind and Tyler (1988:183) concluded that the frustration effect will occur when "a weak procedural advantage is opposed by negative outcomes whose impact is strengthened, either by repeated disappointment in the face of rising expectations (as in the Folger, 1977, experiment) or by social support for the perception that the outcome is unfair (as in the Folger *et al.*, 1979, experiments . . .)" This is the situation that occurs in Scenario 2 of Table 1 when the procedure favorability is not strong. In these cases

. . . a rare response is instigated -- the fairness of the procedure is reevaluated with an eye to discovering possible corruption in the decision-making process. When reasons are found to suspect that the procedure is indeed corrupt, a new procedural justice judgment is formed reflecting both the corrupt nature of the procedure and any nefarious motives that might be inferred from the corruption (see Lind and Lissak, 1985, for evidence of such a process). If it appears that someone is manipulating the process in an attempt to mask personal gain behind a facade of procedural justice, a particularly negative reaction will occur that can create a true frustration effect.

(Lind and Tyler, 1988:183.)

Based on a review of the same studies, Cohen (1985) developed a somewhat different theory for the frustration effect. Cohen noted that the frustration effect has occurred in

studies involving organizational settings, but not in studies involving legal settings. Thus, the difference may be a function of the differing roles of the decision maker in these two settings. In the legal setting, the decision maker is considered impartial (a judge or arbitrator). In an organizational setting, the decision maker has a personal stake (such as an employer). Thus, limited participation may be viewed as a sham to induce loyalty or commitment. Finally, as noted by Lind and Tyler, the frustration effect also appears to be a function of communication among participants that reinforces beliefs that procedures are unfair.

The frustration effect, as a limitation on the generality of procedural justice effects, still is not understood fully. It has been observed in only a few cases and not under circumstances where it was the subject of study.<sup>5</sup>

### **Procedural Justice Effects Strongly Affect Procedural Preferences.**

Theories of distributive justice would postulate that procedures that are most likely to produce desired outcomes would be preferred by participants. Procedural justice research indicates, however, that fairness of procedures is one of the most important factors in determining procedural preferences, although not the only factor (Lind and Tyler, 1988:208).

Procedural designs that concentrate on outcome fairness will not, by themselves, satisfy participants if the procedures used to achieve those outcomes are not perceived as fair. Procedural justice research indicates that such designs may not be preferred, even by a party whose outcome is favored by the procedure. Thus, the research supports what is hopefully

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<sup>5</sup>As will be discussed in Chapter V of this paper, the causes of the frustration effect may have serious consequences for planning natural resource public involvement methods. Therefore, this is an area that deserves careful following and more research.

obvious to those planning decision-making procedures -- procedural design should emphasize qualities that are perceptively fair from a procedural aspect, in addition to providing fair outcomes.

### **Procedures That Provide "Voice" Are Viewed as More Fair.**

Having determined the importance of procedural justice for participant satisfaction and procedural preferences, the next obvious question is "What procedural qualities are perceived as providing fairness?" While no comprehensive answer is available for this question, a substantial portion of procedural justice research has centered on one aspect of procedural fairness with consistent results. Procedures that afford participants an opportunity to express their views incorporate an important aspect of procedural fairness, whether or not decisions reflect those views. Procedures that do not provide this opportunity are perceived as significantly less fair.

The early work of Thibaut and Walker (1975) differentiated between two types of control that participants may have in decision making, control over outcomes ("decision control") and control over presentation of arguments and evidence ("process control"). Process control has essentially become synonymous with the concept of "voice." Voice refers to the opportunity to present views before decisions are rendered and is often used as a broader term instead of process control, which is generally restricted to legal and dispute resolution settings.

Thibaut and Walker's earliest published procedural justice research (Thibaut *et al.*, 1974) involving students in laboratory controlled mock legal settings found a strong

correlation among process control or voice, perceptions of procedural justice, and participant satisfaction. Thus, the greater the amount of process control that the procedure provided, the more fair it was viewed and the more satisfied were the participants.

Subsequently, at least 18 laboratory and scenario studies and at least nine field studies have observed this effect. It is important to remember, however, that this effect can be mitigated or even reversed by the occurrence of the frustration effect described above.

Most of the studies confirming the effects of voice have dealt with legal or dispute resolution settings, following the lead of Thibaut and Walker, and some have dealt with workplace or organizational settings (Early and Lind, 1987; Folger, 1977). However, of greater interest for this paper are studies that found voice enhancement of procedural justice effects in political settings.

Tyler *et al.* (1985) conducted a scenario study to test the effects of voice in a political setting. Subjects were asked to evaluate varying opportunities to express their views to a governmental body before budget decisions were made. Increasing voice increased the subjects' perceptions of fairness with the procedures. This study also found two other important effects of increasing voice. As voice increased, the subjects positive evaluations of the governmental body also increased. Further, the procedural justice effects of voice occurred whether or not voice was linked to influence on decisions. Thus, this study indicates that by providing citizens with the opportunity to express their views, whether or not their views impact the decisions, the procedures will be viewed as more fair, the participants will have a higher degree of satisfaction, and evaluations of decision makers will be higher.



The impact of these findings for public involvement will be discussed in Chapter V of this paper. However, one aspect deserves mention here. Some valid concern has been expressed that these findings encourage the Machiavellian use of voice. By providing citizens with the opportunity to express their views, they might be more satisfied even when there was no intention to listen to those views or consider them in the decision-making process. The use of voice for this purpose had been expressed even before the first procedural justice study was published (Edelman, 1964). However, aside from the obvious ethical issues involved, the findings regarding the frustration effect should give dishonest public participation practitioners pause before using this approach. These studies indicate that when voice is in fact a sham, participants may react with a lower degree of satisfaction than if no voice had been provided. The uncertain nature of the frustration effect at this time makes the abuse of voice a dangerous approach for the practitioner.

#### **Procedural Justice Affects the Evaluation of Decision Makers.**

As noted in the previous section, Tyler *et al.* (1985) found that when procedures were perceived as being more fair, participants had a higher evaluation of decision makers. This effect was observed regardless of the favorableness of the outcomes.

This effect on evaluation of leaders had been observed in previous studies (Tyler and Caine, 1981). Four studies were conducted to determine the effects of procedures, as opposed to outcomes, on evaluations of leaders. Two of the studies were laboratory experiments and two of the studies were surveys. For the two laboratory experiments, undergraduate students evaluated professors. For the two surveys, citizens were asked to

evaluate political leaders. In all studies, procedures had a greater impact on evaluations based on satisfaction and fairness than did outcomes. The laboratory experiments indicated a greater impact of outcomes, however, than did the surveys.

Dixon (1993) found that perceptions of procedural fairness affected participants' confidence levels in the Forest Service. Most importantly, participants who felt that the process did not allow all sides to present their views were likely to have a lower level of confidence in the decision maker. However, no significant differences were found among different participation techniques.

These same effects have been observed in organizational settings where supervisors and employers were being evaluated (Alexander and Ruderman, 1987; Beis, 1987; Kanfer *et al.*, 1987) and in legal settings where judges, police, or the judicial system in general was being evaluated (Tyler, 1984; Tyler and Folger, 1980).

### **Procedural Justice Affects Behavior of Participants, Including Compliance with Decisions.**

Although there is substantial support for the effects of procedure on participant satisfaction, will participant behavior differ based on whether procedures are perceived as fair or unfair, or does behavior change only based on when outcomes are perceived as fair? Referring to Table 1, in Scenarios 1 and 3 (perceptively fair decisions), favorably affected participants would be expected to comply with decisions (which are in their favor). In Scenario 4 (unfair decisions and procedures), compliance would be expected to be lowest. The question, then, is whether in Scenario 2 (unfair decisions and fair procedures) compliance

will be higher than Scenario 4. Research indicates that procedural justice perceptions do, indeed, affect behavior, although some questions remain.

A field study supporting this conclusion was conducted by Tyler (1987). The study was based on Chicago area residents' encounters with the judicial system. The study found that perceived procedural fairness in relations with legal authorities affected residents' views of the legitimacy of the authority. This in turn influenced subsequent compliance with the law.

A national survey (Gibson, 1989) raises questions about these conclusions. The survey measured perceived procedural justice, legitimacy, and compliance with unpopular decisions. Decision-making bodies compared included local legislatures, local judges, and the U.S. Supreme Court. While the Supreme Court was considered the most fair in making decisions based on full information, it was also least likely to provide an opportunity for interested citizens to express their views or to consider all sides. These are factors commonly associated with voice. Yet compliance with unpopular decisions by the Supreme Court was considered to be highest. The author has speculated that compliance is actually a function of legitimacy (a position supported by the Tyler study), and that the Supreme Court derives its legitimacy from concepts other than procedural fairness. Additional research has questioned the effect of procedural justice on institutional legitimacy (Mondak, 1993). However, to the extent procedural justice is a source of legitimacy of decisions, a conclusion supported by research, fair procedures would in turn result in increased compliance.

Procedural justice has been found to affect other aspects of political behavior. In two studies of the 1984 presidential election (Rasinski and Tyler, 1986), citizens' presidential

preferences were found to be partially affected by the candidates' relative procedural fairness. In the same article, a study of political action found that political involvement was also influenced by perceived procedural fairness. Additional studies have examined how procedural justice perceptions specifically relate to action by disadvantaged groups (Taylor *et al.*, 1987; Tyler and McGraw, 1986).

### **Additional Procedural Justice Effects.**

In addition to the foregoing findings in the procedural justice field that have each received repeated testing and support, other effects have been observed that may be relevant to the subject of this paper. The following is a summary of these procedural justice effects.

### **Procedural Justice Judgments Are Affected by Justification of Decisions.**

A laboratory study using undergraduate students was conducted to determine different reactions to procedural injustice in varying contexts (Folger and Martin, 1986). Students were subjected to a disadvantageous change in procedure that was either strongly or weakly justified. The post-test questionnaire varied the stated purpose of the questionnaire as either evaluating the students' feelings or evaluating the researcher for a job position. When the change was strongly justified, there was no significant difference in students' anger or resentment in the different referent situations. However, when the change was weakly justified, subjects reported significantly more anger or resentment in the high-referent questionnaire (that relating to job evaluation). The authors concluded that the endorsement context gives procedural considerations special importance. Because of the potential impact of public input on natural resource decisions and the importance participants place on these

decisions, public participation in natural resource decision making would be classified as a high-referent scenario. Thus, these findings regarding the importance of justifications would be applicable.

### **Elements of Procedural Justice Vary Depending on the Participants' Goals and Decisional Context.**

While procedural justice studies traditionally examine conflict resolution, Barrett-Howard and Tyler (1986) conducted a study of procedural justice effects on resource allocations. The study was made using students to evaluate resource allocation scenarios, varying settings. Thus, the setting was either social or work related, participant relations were either cooperative or hostile, the decision-making procedures were either formal or informal, and the decision maker either had equal or greater power than the participants. This created a 2x2x2x2 matrix. The elements of procedural justice varied among the settings. For example, bias suppression, accuracy, consistency, and representation were of greater importance in formal settings and consistency, accuracy, and ethicality were more important in cooperative settings. In addition, goal-based analysis showed that the elements of procedural justice vary as goals vary from maximizing productivity to maintaining harmony to maximizing welfare.

### **Compromise Decisions May Have a Significant Effect on Participants' Satisfaction with Procedures.**

A laboratory study using students was conducted to measure the effects of outcomes on procedural and distributive justice judgments (Conlon *et al.*, 1989). Participants were subjected to a judicial type of proceeding with results varying as to whether they lost all,

two-thirds, one-third, or none of a payment previously awarded to them. Arguments were presented to a decision maker by representatives for the participants and the opposing side. Participants who lost two-thirds viewed the procedures less favorably than did those who lost everything. The authors concluded that this occurred because those who lost two-thirds felt that the decision maker did not consider all of the facts. The researchers hypothesized that the study indicates an advantage for procedural justice effects of all-or-none outcomes, as opposed to certain compromises. However, an alternative interpretation can be posited. If the decision maker had explained the decision, the consideration of all facts could have been demonstrated. Under such conditions, the reduced satisfaction for the compromise decision might not have occurred. This interpretation provides further support for strong justification of decisions, especially for compromise decisions.

In addition, the nature in which the situation is framed may have significant impact on procedural preferences. Two studies were conducted to determine the effect on procedural preferences of situations that allow for concession exchange, as opposed to winner-take-all situations normally studied in procedural justice research (Heuer and Penrod, 1986). Both experiments were conducted using undergraduate students as subjects. In the first, situations were varied as to motivational orientation (cooperative versus competitive), time pressure, case strength, and procedure. As expected, in all situations preference was given to control of evidence presented, regardless of negotiability. Contrary to expectations that preference would be for increased third-party control in nonnegotiable situations, the preference was for less third-party control than in negotiable situations. In the second experiment, three situations were tested: nonnegotiable (winner take all), negotiable (zero sum with the ability

to make trade-offs), and integrative (opportunity for win-win outcomes). Subjects preferred arbitration (high third-party decision control) when there was no possibility for concession, mediation (moderate third-party control) when compromise was possible, and bargaining (low third-party control) when an integrative solution was possible.

### **Voluntariness of Participation Affects the Importance of Procedural Justice Versus Distributive Justice.**

A survey research study of grievance procedures in the workplace was conducted comparing open and mandatory union workplaces (Gordon and Fryxell, 1989). The study sought to investigate the impact of imposed relationships on salience of distributive and procedural justice. Analysis of the survey results revealed that procedural justice is more important under imposed conditions than voluntary conditions. The authors hypothesized that the reason relates to perceptions of control.

In natural resource decision making, this may indicate differences for classes of participants. For example, decisions that directly affect local residents may be similar to an imposed relationship. Unless the residents move, they have no choice but be affected by the decision. This is similar to an employee in a mandatory union workplace, who has to quit to avoid decision impacts. Thus, for local residents, procedural fairness will take on high importance. On the other hand, recreationists have a greater choice as to whether many natural resource decisions will directly affect them. The alternative of choosing an alternative place to recreate is generally less of an imposition than changing residence. Thus, for this interest group, procedural fairness can be expected to have a relatively lesser impact.

### **Open Issues.**

While the various studies described in this section provide substantial information as to the importance and nature of procedural justice, substantial questions remain. A few of the more significant questions for public involvement in natural resource decision making include:

- Are the findings from dispute resolution studies applicable to natural resource allocation scenarios? As noted, most procedural justice studies have been based on legal proceedings or other dispute resolution situations. However, public participation takes place in a resource allocation setting, which has been the subject of fewer studies. The applicability of all of the findings of procedural justice to resource allocation settings remains to be tested (Tyler, 1989).
- Does merely providing voice affect participant satisfaction if the views expressed do not influence outcomes? Several studies have concluded that providing participants with voice increases satisfaction, whether or not the views expressed can influence outcomes. The results of these studies, however, can be questioned. Generally, these studies failed to determine whether those who were given voice without the possibility of influence really believed that expression of views was irrelevant to the decision. In a laboratory study using undergraduate students (Lind *et al.*, 1990), variations were made as to voice (either none, prior to a decision being made, or after a decision was made) and type of information provided to subjects (none, irrelevant information, or relevant information). As expected, fairness judgments were higher when voice was provided and were higher with pre-decision voice than post-decision voice. However,



subjects that were provided with post-decision voice had enhanced perceptions of control, even though they were assured their voice had no effect on decisions. Therefore, the results are ambiguous.

- Is perceived decision maker impartiality important for procedural justice effects? A review of studies where the frustration effect was noted indicated that decision maker impartiality may have a significant effect on whether a frustration effect occurs (Cohen, 1985). One study has found that while degree of control over decisions is important in determining procedural fairness, neutrality is also important, along with trust and standing (Tyler, 1989).

## V. COMMONALITIES AMONG FINDINGS

The study of procedural justice has the potential to provide substantial guidance to the structure and conduct of public involvement programs. Chapters III and IV discussed certain findings in the public participation and procedural justice fields, respectively. The following discussion will examine the common concepts found in these two fields. Although common concepts are not necessarily identical in the two fields, certain aspects overlap. Where these findings or goals find commonality, a new, or at least refined, concept emerges or further support may be provided for previous findings. In this regard, it is significant that most of the findings in public participation have both an outcome and a procedural element. Thus, for example, public involvement may legitimize decision-making processes both because of effects on decisions and because of procedural validity. It is the procedural elements of public participation findings and goals that find support in procedural justice.

Table 2 lists the common concepts that emerge from comparing the goals and findings of public involvement discussed in Chapters II and III with the findings of procedural justice discussed in Chapter IV. Where common concepts exist between findings, the findings are listed opposite each other, and the new concept is listed between.

Table 2. Commonalities among findings

	<b>PUBLIC INVOLVEMENT FINDING</b>	<b>SYNTHESIZED CONCEPT</b>	<b>PROCEDURAL JUSTICE FINDING</b>
1	Process related goals of public involvement	Procedural justice supports process related goals for public involvement	Procedural justice is a significant determinant of participant satisfaction; procedural justice affects the evaluation of decision makers; procedural justice affects behavior of participants
2	Public participation programs are more successful if more people participate; public participation should be inclusive	Public participation procedures should be inclusive	Various advantages of procedural justice; procedural justice affects the behavior of participants
3	Interactive public involvement methods are desirable	Public participation procedures should provide for interactive approaches	Procedures that provide "voice" are viewed as more fair
4	Public participation methods should be adapted to different situations	Procedural preferences are situationally specific	Procedural justice effects strongly affect procedural preferences; elements of procedural justice vary depending on the participants' goals and decisional context
5	Public participation input should be used in the decision-making process	Decision makers must provide clear justification for their decisions	Procedural justice judgments are affected by justification of decisions
6	Professional resistance is a major source of public involvement failure	Decision makers must maintain the appearance of impartiality	Frustration effect has been related to decision maker partiality

The remainder of this chapter will discuss these areas of convergence in greater detail.

**Procedural Justice Supports Process Related Goals for Public Involvement.**

As noted earlier, there is considerable disagreement over what the goals of public participation should be or, if there are multiple conflicting goals, which should take precedence. While social psychology cannot provide insight into making better natural resource decisions, procedural justice provides important information for making decisions that have increased public support. Research cited in Chapter IV of this paper strongly supports the conclusion that procedures are extremely important in determining participant satisfaction. Thus, it is not enough for a natural resource decision maker to arrive at a scientifically sound decision that is substantively supported by the majority of the public. If the procedures used to arrive at the decision are perceived as unfair, participant satisfaction will be significantly less than it might be otherwise.

Perhaps an even more important lesson in this regard is the corollary that unpopular decisions will achieve a higher degree of participant satisfaction if the procedures used are perceived as fair. As many writers have noted, we are increasingly living in an age of natural resource scarcity. Many natural resource decisions involve allocation questions that necessarily involve winners and losers. Research in procedural justice supports the conclusion that fair procedures can have a significant effect on participant satisfaction especially in circumstances of negative outcomes. Thus, where natural resource decision makers are forced to make decisions that result in negative outcomes for a significant portion of the participants, fair procedures are critical in raising satisfaction levels for those negatively affected.

Procedural justice research has also shown that providing perceptively fair procedures enhances public opinion of decision makers, while unfair procedures do the reverse (*e.g.*, Tyler *et al.*, 1985). This effect occurs regardless of the quality of decisions. Thus, again it is not enough for natural resource decision makers to provide high quality decisions, even if they achieve widespread public support (assuming this is possible). If the procedures used to arrive at these decisions are perceived as unfair, public opinion of the decision makers will suffer.

#### **Certain Public Participation Methodological Approaches Are Supported By Procedural Justice Research.**

In addition to justifying procedural fairness as a goal of public participation, procedural justice research supports several methodological findings proposed in the public involvement literature.

Procedures that are supported by procedural justice research can be expected to serve the public involvement goal of increasing public support through perceptively fair procedures. The preceding discussion emphasized the importance of this goal. However, as discussed in Chapter II, this goal is only one of several goals that are not mutually exclusive. Therefore, in using concepts supported by procedural justice, public involvement practitioners must bear in mind the effects of the procedures on other public participation goals.

#### **Public Participation Procedures Should Be Inclusive.**

Being inclusive and increasing numbers of participants expands the benefits of providing voice. Thus, even in cases where more inclusive procedures increase the

percentage of alienated participants (*e.g.*, Twight, 1977), levels of satisfaction throughout the affected public can be expected to be higher than with less inclusive approaches.<sup>6</sup>

Attempts to provide more inclusive public participation programs can sometimes be problematical. Certain publics may choose not to participate, not because of lack of concern for the issues involved, but for other reasons, such as a decision to spend effort on other issues perceived to be more critical (Mohai, 1985). These publics might often be ignored by natural resource decision-making procedures, and some have advocated this position (Behan, 1988). However, procedural justice research suggests that including these publics in procedures that are perceptively fair may have significantly beneficial effects on, among other things, evaluation of decision makers and compliance with laws. Therefore, efforts to make public participation programs more inclusive should be continued.

#### **Public Participation Procedures Should Provide for Interactive Approaches.**

Procedural justice research on the importance of voice for fair procedures supports interactive approaches to public participation. Since the early work of Thibaut and Walker, the procedural justice effects of process control or voice have been a reliable finding. These effects have been observed even when the opinions expressed could not have an effect on the decisions.

Public involvement often takes a form that allows for voice. These methods range from letter writing to certain public hearings to collaborative decision-making approaches.

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<sup>6</sup>Similarly, in those cases where the frustration effect occurs, more inclusive approaches will increase this negative reaction. It therefore becomes increasingly important with more inclusive approaches to develop means of avoiding the frustration effect.

Methods that are interactive further increase process control. However, certain methods, such as informational meetings, may not provide an opportunity for interested parties to express their views. A decision maker might view this mechanism as appropriate when there is no decision-making space (*e.g.*, the decision is legally prescribed). However, procedural justice research indicates that, even in these cases, providing an opportunity for the expression of views increases participant satisfaction with decisions and bestows a higher degree of legitimacy on the outcome.

Further analysis is necessary to determine the effectiveness of different public participation methods for providing voice to a broad range of publics. For example, public hearings provide a structure by which concerned members of the public are allowed to voice their concerns and ideas to agency decision makers. However, if the hearing environment is sufficiently intimidating to members of the public, this method may not provide a truly effective means of providing voice to a large portion of the public. Rather, participation in a small group format, by providing greater interaction, may provide more actual voice (Gericke and Sullivan, 1994). Further research in this area is warranted for the realization of the advantages of providing voice.

### **Procedural Preferences Are Situationally Specific.**

Recent research in both procedural justice and public participation strongly supports the conclusion that there is no "magic bullet" for public involvement. Rather, a variety of factors will determine the optimum procedure from a fairness standpoint and for other purposes.

In the procedural justice field, the Barrett-Howard and Tyler (1986) study cited earlier provides important insights in this area, indicating that both formality of decision-making settings and goals of participants impact which elements of procedural justice take precedence. Also, the Gordon and Fryxell (1989) study demonstrated that the importance of procedural fairness depends on whether the association with the decision-making process is voluntary or imposed, as would be the case with certain dispute resolution procedures. Either of these conditions may occur in natural resource decision making.

The Heuer and Penrod (1986) study speaks directly to this point. It demonstrated that procedural preferences depended on whether outcomes were nonnegotiable, negotiable, or integrative. Degree of preferred third party control varied with each scenario.

Research in public participation has supported this same conclusion, although not necessarily for the same reasons. (This realization was also included in the recommendations of the Hendee *et al.* (1973:xii) study, which stated "The kind of techniques used to secure public involvement should be based on specific objectives for the particular issue at hand.") Research using the Vroom and Yetton model to determine desired degree of participation (Thomas, 1990; Sample, 1993) has proposed an approach that would vary the degree and nature of public participation depending on a sequential analysis of several key attributes. The attributes were chosen with the combined goals of raising the quality of decisions (for example, by providing the decision maker with needed data or providing a more time efficient method) and developing acceptance of, and commitment to, decisions by participants. This second goal is closely related to the procedural justice concern of participant satisfaction.



Thus, research in both procedural justice and public participation is beginning to recognize the need to design decision-making procedures on a situational basis. While current research in procedural justice does not address the attributes used in the Vroom and Yetton model, further study may confirm or modify the model.

### **Decision Makers Must Provide Clear Justification for Their Decisions.**

One component of a decision-making procedure is the justification (or lack of justification) provided for the decision reached. The importance of this component is supported by two findings of public participation literature: (1) public input should be used in the decision-making process and (2) decision makers should provide feedback to the public. If this feedback includes the manner in which public input was responded to by the agency, the result is a justification within the context of the public involvement process.

Two laboratory studies (Folger and Martin, 1986; Folger *et al.*, 1983) and one field experiment (Schaubroeck *et al.*, 1994) have supported the position that, especially when outcomes are unfavorable, the quality of justification provided by the decision maker significantly affects the satisfaction levels of participants. Further research has indicated that the procedural justice effects of voice may be lost if it is not clear to the participants that their views are considered by the decision maker (Tyler, 1987).

Perhaps even more important, the effect of procedural justice in increasing compliance with laws may be dependent on the justification provided for decisions. Greenberg (1993a) found in a laboratory study that underpaid workers were significantly more likely to steal if strong justification was not provided for their pay rates.

### **Decision Makers Must Maintain the Appearance of Impartiality.**

Lack of impartiality can have several impacts on participant reactions. In one study (Lind and Lissak, 1985), apparent impropriety by the decision maker resulted in more extreme judgments of fairness. Thus, recipients of favorable outcomes, who were inclined to view procedures and outcomes as fair, had higher perceptions of fairness when there was impropriety, apparently believing the procedures must have been very fair to overcome the impropriety. On the other hand, recipients of unfavorable outcomes, who were inclined to view procedures and outcomes as unfair, had even lower perceptions of fairness when there was impropriety. Thus, in the field of natural resource decision making, where participants will often view the outcomes as unfavorable, appearance of impropriety will decrease judgments of fairness.

While the frustration effect is still not fully understood, existing theories hold that providing participation when decision makers may be seen as not impartial and there is social support for the opinion that the decision is unfair, can result in lower levels of satisfaction than if no participation had taken place.

Support for this theory of the frustration effect poses a dilemma for natural resource decision makers. Unlike many legal settings (especially laboratory settings used for many procedural justice studies), natural resource decisions are made in a public forum with strong social interaction within interest groups. Thus, in the event of negative outcomes (which may be inevitable in the now common situation of allocation of limited resources), strong support

may exist for the opinion that the decisions, processes, or both are unjust. If the decision makers are viewed as not impartial, a real risk of the frustration effect exists.

Substantial research has indicated that Forest Service personnel, for example, are not viewed as impartial. Thus, in one study, the Forest Service was seen as being in an adversarial role to the public (Twight and Carroll, 1983), while in another, bias toward some constituent publics was indicated (Twight *et al.*, 1990).

This risk of adverse procedural justice reactions from perceived bias creates a substantial risk for public participation practitioners and requires further study and understanding if public involvement in natural resource decision making is not to be counterproductive. The causes and circumstances leading to the frustration effect need to be understood so that procedures can be designed to avoid it.

### **Testing of Propositions.**

The propositions discussed in this chapter are subject to testing using social research methods. For this purpose, certain of the propositions developed in this chapter can be reformulated into working hypotheses regarding the interaction of public involvement and procedural justice.

The validity of each of the propositions in this chapter depends upon the basic concept of the importance of procedures. If procedures are not as important in natural resource decision making as suggested by procedural justice theory, then public involvement methods should concentrate on outcomes. Therefore, the following hypothesis is presented for testing:

**Hypothesis 1. The perceptions of public involvement participants of the fairness of**

**natural resource decision-making procedures significantly affects their satisfaction with their public involvement experience and the natural resource decision.** Several aspects of this hypothesis should be noted. First, it only addresses participants because participant satisfaction has been the focus of procedural justice research. Effects on non-participants, which might be just as important, are not addressed. Second, while effects are measured against satisfaction, the implications of satisfaction versus dissatisfaction are not addressed. Both of these elements, which have not been previously included in procedural justice research, may be critical to public participation program design and are discussed in Chapter VII.

In addition, the extensive work in the area of voice suggests a logical hypothesis to test as a second area of research: **Hypothesis 2. Public involvement procedures that provide greater voice to participants are perceived as more fair and lead to higher satisfaction with the public involvement experience and natural resource decision than procedures that provide less voice, regardless of perceptions of fairness of outcomes.** This hypothesis is dependent on the validity of Hypothesis 1, and should therefore be addressed in conjunction with, or subsequent to, Hypothesis 1. Suggested social research methods for testing these hypotheses are presented in the Appendix.

## VI. A NEW THEORY OF PUBLIC INVOLVEMENT IN NATURAL RESOURCE DECISION MAKING

Although little has been written directly addressing the theoretical basis for public involvement in natural resource decision making, the literature and practice have embodied an implied ideology. However, procedural justice findings challenge this ideology.

Wengert (1976), noting a lack of organized theory in public participation literature in general, presented five possible perceptions of participation that influence participation theory. These perceptions include: (1) **participation as policy**, based on the normative conclusion that public participation is a desirable policy that should be implemented; (2) **participation as strategy**, as a means to achieve other objectives; (3) **participation as communication**, so that informational inputs to decisions are improved; (4) **participation as conflict resolution**, as a means for bringing disparate sides together to share views and achieve compromise; and (5) **participation as therapy**, as a means for the disaffected to become involved in decision making. While it is possible to fine tune or expand this list, it does reflect the traditional perceptions expressed. Further, all of these perceptions are outcome oriented, except for participation as therapy. The inclusion of participation as therapy was an early recognition that participation may have effects that are not outcome related. However, the use of public participation as therapy has been evaluated as "dishonest and arrogant" and "a masquerade of involving citizens in planning" (Arnstein, 1969).

Notwithstanding the reference to the therapeutic role of public participation, the overwhelming emphasis in the natural resource literature has been on outcomes. Whether examining the goals, methods, or evaluation of public participation programs, the literature

has been primarily concerned with the effects of involvement on decisions. Thus, Chapter II discussed the emphasis on goals of public involvement for improving decision quality. The principal findings of public involvement literature discussed in Chapter III each have an outcome and a procedural element. However, it is generally the outcome element that has received attention in the literature. Thus, a Public Participation Coordinator for the Soil Conservation Service predicted that, if public participation failed to make an enormous effect on decision making, public participation would disappear from the decision-making process (Cuthbertson, 1983).

This emphasis on outcomes reveals an implied ideology of public participation that has pervaded the field. This ideology is based on a faith in scientific methods of management and decision making, consistent with the positivist approach of the progressive era. Thus, according to this ideology, the purpose of decision-making processes is to achieve the most scientifically sound decisions. The belief that natural resource decisions should be subject to a purely scientific approach generally was accepted for the first half of the twentieth century (Wondolleck, 1988; Magill, 1988).<sup>7</sup> The most complete and accurate information available to the expert manager will lead to the most scientifically sound decision. According to this positivist ideology, the role of public participation is to increase the quantity and quality of the information available to the decision maker. It has been argued that this positivist approach is inherent in administrative decision making (Brunson, 1992).

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<sup>7</sup>A positivist approach to forest management was central to Gifford Pinchot's molding of federal forest management early in this era. In the letter of instruction from Secretary of Agriculture Wilson to Pinchot (drafted by Pinchot), an important theme was delegation of forest management to trained foresters (Dana and Fairfax, 1980).

Natural resource literature has increasingly recognized that managers operate in a political framework (Cortner and Shannon, 1993). That emerging attitude results in a modification of the ideology's application. Thus, the political positions of interest groups have become additional data for the decision-making process. Emotional reactions of participants are treated in the same way (Creighton, 1983b). If a decision is found to be sub-optimal, the fault can be attributed to inadequate information. If non-participating interests challenge a decision, the conclusion reached is that public participation procedures need to be improved to obtain input from these interests. Given this approach to public participation and the highly charged nature of natural resource decisions, it is not surprising that decision makers feel that the best they can achieve is to be attacked equally by all sides of an issue.

Theories of procedural justice have been developed that may be compared against the positivist ideology of public participation. Lind and Tyler (1988) have examined two such theories. The **Self-Interest Model** postulates that participant motivation in decision-making processes is to maximize personal gain. Lind and Tyler note that this theory dominates public policy analysis. The approach to public involvement within a positivist ideology discussed above is consistent with this theory. Because participants seek to maximize personal gain, they are concerned primarily with decisional outcomes. Procedures are purely viewed as means to an end. Thus, resource managers are concerned with using public involvement to determine and, perhaps, reshape participants' goals. Optimal decisions are those that either maximize net gain to participants as a whole, allocate gain to those most likely to interfere with policy implementation, or otherwise make decisions based on participant self interest.

The Self-Interest Model is not wholly inconsistent with procedural justice findings. Commonly included in the model is the recognition that individuals must at times control their preferences to obtain decisions that require cooperation. This can be viewed either in the short term with respect to a single decision, where a compromise may be better than nothing, or in the long term, where cooperation now may lead to benefits later. In either case, the individual is still seeking maximum gain.

An alternative model suggested by Lind and Tyler is the **Group Value Model**. The Group Value Model assumes that group membership is a significant element determining attitudes and behaviors. Group identity determines the external features of the group while procedures determine the internal features. Further, this group may be society as a whole. Thus, when procedures are in accordance with basic societal values, individuals will perceive procedural justice. Procedures that are not in accordance with these values would, when applied to individuals, result in a sense of separation from the group. In addition, the individual would be concerned with the long-term relationship with the group authorities and institutions (Tyler, 1989). Because of the importance of group membership, this would result in dissatisfaction and other negative reactions toward the decisions and the decision makers.

Lind and Tyler found that neither the Self-Interest Model nor the Group Value Model fully explain the findings of procedural justice. Rather, a recognition that both elements have a role in individual evaluations is necessary. Field research supports this conclusion (Conlon, 1993). Thus, two elements significantly affect an individual's evaluation of procedures -- the impact of the procedures on the individual's self interest and compliance of procedures with group or societal norms.



The Lind and Tyler conclusions about procedural justice theory can be translated to a new theory of public participation. First, the theory indicates that the positivist approach to public involvement is inadequate. Public participation plays a role larger than providing data for decision makers. Using any procedural means adequate for obtaining necessary data may enable the decision maker to maximize outcome satisfaction. However, if the procedures fail to meet societal standards of fairness, participants' sense of group/societal membership will have been violated and aggregate satisfaction will be sub-optimal.

In addition to challenging previously held approaches to public involvement, however, this theory provides hope and guidance for improving public participation programs in the future. Programs that are designed to improve data inputs for decisions **and** meet participants' perceptions of procedural fairness can be expected to result in substantial improvements in participant satisfaction. Procedural justice research indicates that the implications of this may be far reaching. They include the following lessons for agencies involved in natural resource decision making:

- ▶ Increased perceptions of procedural fairness should result in **greater acceptance of decisions, higher levels of compliance, and increased confidence in decision makers;**
- ▶ Procedures that allow participants to express their views can be expected to achieve these benefits, and should be used, **even where the decision maker has little or no decision space;**

- ▶ The benefits of providing public participation programs consistent with procedural justice principles is dependent on the decision makers providing **quality justifications** for their decisions and **adequate feedback** to participants; and
- ▶ The benefits of these programs can be extended by providing **more inclusive programs**. Disaffected publics should be included as well.

For almost a century, approaches to natural resource decision making have been locked in a positivist ideology that supports purely scientific or technical answers to natural resource issues. In spite of increasing evidence of the shortcomings of this ideology, attempts have been made to make the positivist ideology operate with modifications. However, it has been shown that a new approach is necessary. A new theory of public participation has been presented that recognizes the importance of fair procedures complying with societal norms. However, certain questions remain for this theory to be applied fully. Some of these questions will be discussed in the next chapter.

## **VII. APPLICATION OF PROCEDURAL JUSTICE TO PUBLIC INVOLVEMENT PROGRAMS: ISSUES FOR FUTURE RESEARCH**

Although strong theoretical support exists for incorporating procedural justice principles into public involvement programs, numerous questions remain as to the principles' actual implementation. A number of issues relate to the applicability of principles from the procedural justice field to natural resource decision making, given the contextual differences. Answers to these questions, while important for public involvement, will also be critical to the field of procedural justice as it moves beyond a research question to an applied tool.

### **Implications of Group Value Model on Interest Groups.**

The model of participant behavior developed in Chapter VI is based on the responses of individuals. This approach has been at the core of procedural justice research. Substantially all studies and theory have focussed on the perceptions and responses of individuals to procedural effects. This emphasis needs to be expanded for application in the natural resource decision-making arena.

Natural resource decision making has been dominated by interest group participation since at least the 1970's (Wondolleck, 1988). Thus, although many individuals can and do participate in natural resource decision making in their individual capacities, interest groups, generally representing larger constituencies and having expanded resources, have become major influences on natural resource managers. This phenomenon distinguishes natural resource decision making from most of the procedures studied by procedural justice researchers.

The importance of interest groups on public participation in natural resource decision making cannot be overstated. In many cases, the stagnation of decision making is the result of action by such interest groups. The debate over late successional forests in the Pacific Northwest has been driven by national and regional interest groups. Substantially all non-governmental litigants in this controversy have been interest groups.<sup>8</sup> Attempts to improve the related decision-making procedures through methods that address individual responses without addressing interest group responses are unlikely to significantly alter the overall situation.

One study of procedural justice effects other than on individuals examined acceptance by corporations of arbitration awards (Lind *et al.*, 1993). Acceptance was based on likelihood of appeal. It was found that with corporations, as with individuals, acceptance was most highly correlated to procedural justice judgments, rather than outcome favorability. Although many natural resource interest groups may be motivated by different factors than corporations, this study does begin to extend procedural justice effects beyond individual reactions.

While the impact of interest group participation on procedural justice effects remains unstudied, certain aspects can be theorized. On the local and regional level, *ad hoc* groups are often formed by dissatisfied citizens to influence a particular decision or planning process. Methods based on procedural justice concepts that successfully reduce public dissatisfaction

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<sup>8</sup>The prominence of interest groups in natural resource litigation is driven, in part, by legal decisions regarding requirements for standing to bring suit (see *Sierra Club v. Morton*, 405 U.S. 727 (1972)). Therefore, the dominance of interest groups in this type of litigation is unlikely to change unless new laws are passed expanding the classes of litigants who can bring suit.

may be expected to similarly reduce the formation of, or levels of dissatisfaction within, this type of interest group.

On the other hand, national based public interest groups may be less affected by procedural justice effects. Actions based on procedural justice effects are most likely to be influenced when the actions are motivated by levels of satisfaction. This may be the case with the formation of, and acts by, local interest groups. National interest groups are much less likely to be motivated by levels of individual or group satisfaction. Rather, these groups are more likely to be motivated by how a proposed action fits into a national political agenda, financial objectives, entrenched conflict industry, or other factors. Thus, in terms of national interest group response to increased procedural fairness for individual decisions, methods based on procedural justice concepts are unlikely to have a significant effect.

Use of procedural justice findings could have a long-term effect on national interest groups. Individual satisfaction levels may affect the perceived need by individuals to join or contribute money to national interest groups. If a reduction in membership and funding occurs, interest group action may diminish.

### **Impact of Procedural Justice on Non-Participants.**

Procedural justice research has focussed on the effects of justice perceptions on participants in decision making. However, decision-making procedures may have significant effects on non-participants as well.

One of the common concepts in public participation literature is that success of a public involvement program can be measured by the number of people who participate.

Although some research has disputed this finding, Chapter V explained how procedural justice findings support this position.

The research reviewed in this paper supports the conclusion that increased perceived procedural fairness may increase participation in natural resource decision making (Tyler and McGraw, 1986). This research suggests that one reason some people fail to participate is a sense of frustration with procedures, outcomes, or both. For example, some persons may believe that their input is not listened to by resource managers. Procedural justice findings indicate the importance of input being used by the decision makers and feedback being provided to the participants. These steps should reduce the perception that input is being ignored and alleviate this reason for non-participation.

However, many persons may choose not to participate for reasons unrelated to perceptions of procedural or outcome fairness (Mohai, 1985). For example, it has been theorized that many disadvantaged groups do not participate in natural resource decision making because they have limited resources and these decisions have relatively low priority to them. Revised public involvement methods based on procedural justice concepts are unlikely to increase participation from these publics. Therefore, while application of procedural justice concepts may be expected to increase public participation, predicting the degree of increase will require a better understanding of why people currently do not participate.

### **Effects of Historical Mistrust on Participant Reactions.**

The failures of natural resource managers, and especially the Forest Service, in dealing with the public and conducting public involvement programs has been extensively documented. Low levels of confidence in resource managers have resulted. On the other hand, procedural justice effects in a climate of low confidence in, and mistrust of, the decision maker have generally not been well examined. Rather, decision makers in most procedural justice studies have been judges and others cast in an impartial role.

Given the current climate, it is possible that short term reactions to procedural justice methods may be negligible. The levels of mistrust and cynicism might be so high that any attempts to improve procedural fairness are greeted with skepticism. Research in negotiations indicates that negative relations tend to persist (Pruitt and Carnevale, 1993). These historical relations result in parties developing selective perceptions of each others actions. Thus, immediate increases in participant satisfaction may not be evident.

However, Dixon (1993) found that confidence in Forest Service managers was significantly influenced by procedural justice perceptions. Thus, in the long term, procedural justice effects may reduce the climate of mistrust and doubt. In this new climate, increased satisfaction from procedural justice effects may be significant. This analysis implies an increasing spiral, where procedural fairness would lead to increased trust, which would in turn lead to perceptions of increased procedural fairness and so on. While further research is necessary in this area, this analysis suggests that pursuing methods based on procedural justice research is likely to be beneficial, but that patience may be necessary to see the full benefits.

### **Meaning of Participant Satisfaction and Dissatisfaction.**

Although procedural justice research has been concerned primarily with measurements of participant satisfaction, little discussion has been included as to the meaning of satisfaction and dissatisfaction. Rather, satisfaction has been treated as a base psychological response. Like anger or sadness, a participant was evaluated as to degree of satisfaction.

Research in other fields, such as wilderness (Shelby and Heberlein, 1986), indicates that the implications of measures of satisfaction may be more complex than procedural justice researchers have treated it. For example, managers must distinguish the implications of increasing satisfaction with the implications of reducing dissatisfaction. Research has found that removing sources of dissatisfaction might not lead to higher levels of satisfaction. Indeed, this research indicates that satisfaction and dissatisfaction may not be opposite ends of a scale, but two different reactions. Thus, certain changes might decrease dissatisfaction without increasing satisfaction. Applied to public participation, certain factors may relate to satisfaction levels, while other relate to dissatisfaction levels. For example, public involvement participants may be dissatisfied because they believe they are not given an adequate opportunity to express their opinions. However, providing extensive opportunities for input may not increase satisfaction levels if participants feel that their opinions, once expressed, are not considered in the actual decision making. Research indicates that if this situation is combined with perceived bias of the decision maker, the frustration effect may occur. In such a case, satisfaction may be even lower than if no opportunity for input had been provided.



Further, the implications of satisfaction of individual participants for natural resource public involvement needs to be understood. As noted above, individual satisfaction levels may have little direct effect on certain interest group participants.

### **Measures of Procedural Fairness.**

Procedural justice effects have been observed as a function of perceived procedural fairness. In early research, this was controlled by providing patently fair and unfair procedures. Attempts to determine the elements of fairness concentrated on legal proceedings and adversarial systems versus other systems of litigation. Subsequent research has looked at other measures of fairness.

Leventhal (1980) has postulated six rules of fairness: (1) consistency of decisions over persons and time; (2) suppression of decision maker bias; (3) accuracy based on good information and an informed decision; (4) correctability of errors; (5) representativeness of groups of affected individuals; and (6) ethicality compatible with fundamental moral and ethical values. While subsequent research indicates that this listing may be too simple (Lind and Tyler, 1988), it serves as a starting point to study the complexity of fairness judgments.

Research discussed earlier in this paper (Barrett-Howard and Tyler, 1986) found that the relative importance of these measures of fairness depends on the decision-making scenario. The study compared work and social situations, formal and informal decision-making structures, cooperative and competitive participants, and equal and unequal power *vis-a-vis* the decision maker. Although that study did not examine administrative decision making, the scenarios can be compared to natural resource decision making. Natural resource

decision making is more similar to the social than the work setting. Further, it is a formal decision-making structure, is generally competitive, and the decision maker has superior power. In this scenario, the researchers found that bias suppression, consistency across persons, ethicality, and accuracy were significant elements of fairness, in that order. Certainly, further research is necessary with direct application to natural resource decision making to determine the most important elements of fairness.

Another factor complicating evaluations of fairness may be the political philosophy of the participants. In one study (Rasinski, 1987), individuals with equity-based political philosophies emphasized the importance of procedural justice, while those with equality-based philosophies were more concerned with distributive justice. This dichotomy may make it unwise to concentrate on a limited view of justice and fairness.

## VIII. SUMMARY AND CONCLUSION

Public participation in natural resource decision making is at a critical stage. It has become an integral part of the decision-making process without a clearly articulated goal or theoretical basis. With ever increasing complexity and controversy, public involvement often has become a battleground, rather than a source of cooperation and collaboration for improved decision making.

This paper began by examining the goals of public participation in natural resource decision making. It was seen that various goals have been advocated, which may at times be mutually compatible or mutually exclusive. However, a goal that has received little attention is increasing acceptability of decisions through perceptively fair procedures.

Public involvement literature was reviewed. Although public involvement has developed in a haphazard manner in reaction to legal requirements, certain findings that have emerged were presented. These include: (1) public participation legitimizes decision-making processes; (2) public participation programs are more successful if more people participate; (3) public participation should begin early and continue throughout the process; (4) public participation should be inclusive; (5) public participation input should be used in the decision-making process; (6) controversial issues should be identified and addressed; (7) interactive public involvement methods are desirable; (8) professional resistance is a major source of public involvement failure; (9) public participation is necessary to establish resource management goals; and (10) public participation methods should be adapted to different situations.

Procedural justice literature was reviewed as well. Procedural justice is a branch of social psychology concerned with the effects of procedures on participants in decision-making processes. Findings of procedural justice that were discussed include: (1) procedural justice is a significant determinant of participant satisfaction; (2) procedural justice effects strongly affect procedural preferences; (3) procedures that provide "voice" are viewed as more fair; (4) procedural justice affects the evaluation of decision makers; (5) procedural justice affects behavior of participants, including compliance with decisions; (6) procedural justice judgments are affected by justification of decisions; (7) elements of procedural justice vary depending on the participants' goals and decisional context; (8) compromise decisions may have a significant effect on participants' satisfaction with procedures; and (9) voluntariness of participation affects the importance of procedural justice versus distributive justice.

In comparing these findings, new concepts were developed and new rationales were provided for previous findings. These synthesized concepts include: (1) procedural justice supports process related goals for public involvement; (2) public participation procedures should be inclusive; (3) public participation procedures should provide for interactive approaches; (4) procedural preferences are situationally specific; (5) decision makers must provide clear justification for their decisions; and (6) decision makers must maintain the appearance of impartiality.

This paper argues that approaches to public involvement have been locked in a positivist ideology that fails to include effects of public participation programs beyond decision outcomes. Procedural justice provides a path out of this narrow ideology and the basis for a new theory of public participation. This theory is based on a blending of the self-

interest model of human behavior and the group value model. It recognizes the importance to individuals not only of outcomes, but of procedures as well. It is in fair procedures that individuals find reaffirmation of their membership and importance in society. Regardless of outcomes, failure of procedures to comport with societal norms of fairness will result in disaffection. Fair procedures can be expected to increase participant satisfaction, compliance with laws, and opinions of decision makers.

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**APPENDIX**

## APPENDIX. APPROACH TO SOCIAL RESEARCH

As previously discussed, most public involvement literature has focussed on the effects of public involvement on natural resource decision outcomes. This paper, however, examines the effects of public involvement procedures on participant reaction. Based on the review of public involvement and procedural justice literature, two working hypotheses were developed, subject to testing.

The following discussion of social research methods will examine the appropriateness of these methods for studying the hypotheses presented at the end of Chapter V, with precedence given to testing of Hypothesis 1.

### **Review of Social Research Methods.**

Choice of social research methods depends initially on the type of question(s) being asked by the researcher. Generally, research questions **primarily** will be either descriptive (seeking to describe some attribute or characteristic), explanatory (seeking to determine the reasons for actions or attitudes, for example), or exploratory (to begin development of, or clarify questions in, a new area). Many studies will combine these purposes to a greater or lesser extent. Thus, Hypothesis 1 is primarily descriptive. It attempts to describe the nature of public involvement participants in terms of what is important to their evaluations of their experiences. On the other hand, Hypothesis 2 is primarily explanatory, attempting to explain the effects of different public involvement approaches in terms of participant reaction. As we will see, these differences between the hypotheses result in different optimal social research methods.

Regardless of method selected, optimal application of the method will vary based on a time element. For example, descriptive questions generally can be applied to a point in time. Thus, it may be possible to determine the importance of procedures to participants at some point by a single survey, for example. Explanatory questions, however, generally require a study over time to determine the effects of some action. The effects of different levels of voice require testing at least at two points in time, before and after the procedure.

Different methods of social research will be reviewed next. The categorization of methods largely follows that of Babbie (1992), as well as Singleton *et al.* (1988).

### **Experimental Approaches.**

Experimental approaches involve the taking of some action with respect to a selected group of subjects (often college students in procedural justice and many other fields) and observing the consequences. A control group of subjects is provided with respect to whom the action is not taken to control for non-experimental factors.

Experimental approaches are best adapted to testing of hypotheses related to explanatory questions. This is especially true with the use of college student subjects or other groups that may not be representative of the general population to which the question applies. This lack of representativeness makes the validity of answers to descriptive and exploratory questions weak.

These approaches have the primary advantages of being able to isolate variables, being easily replicable, and having moderate costs relative to other methods. However, the artificiality of the experimental environment raises issues of external validity.



Experimental methods are poorly suited for answering Hypothesis 1. Hypothesis 1 is designed to describe public participant reactions. Experimental subjects are unlikely to be representative of these participants. Therefore, the results will not be readily generalizable to the population in question. However, these methods are well adapted to testing Hypothesis 2. Different levels of voice can be simulated in an experimental setting and non-experimental factors can be controlled. These controls are difficult or impossible to create using other social research methods.

### **Surveys.**

Surveys include questionnaires that are either self administered or administered by in-person or telephone interview. They are well adapted to all types of questions, whether descriptive, explanatory, or exploratory.

Advantages of surveys include their ability to describe large groups, their flexibility in being able to cover multiple topics, and their reliability. Weaknesses include their superficiality compared to field research, their inflexibility in being non-modifiable after administration starts, their reliance on self reports by subjects, validity questions, and relatively high financial and time costs. Because of these weaknesses, supplementing surveys with field research has been urged as especially important in procedural justice studies (Greenberg, 1993b).

Survey methods are well suited for testing Hypothesis 1 if the hypothesis is well defined and understood. The ability of surveys to describe public involvement participants' reactions based on their personal evaluations is strong if the hypothesis is well enough

understood to adequately frame questions. Survey methods may be weaker than experimental methods in testing Hypothesis 2. Because Hypothesis 2 seeks to differentiate public involvement methods, surveys would have to be conducted on a comparative basis over time. Creating experimental control would be impossible and quasi-experimental control (Goldenberg and Frideres, 1986) would be difficult. Further, adequate testing would require natural resource decision makers to try a variety of public involvement methods on an experimental basis. While this is not impossible (perhaps using Adaptive Management Areas), it would be politically difficult. Finally, costs would be relatively high (financial and time) due to the multiple surveys that would be necessary.

### **Field Research.**

Field research, generally resulting in qualitative data, includes methods where the observer is a participant and those where the observer is a complete observer (nonparticipant). These methods are best adapted for obtaining non-quantifiable data and observing social processes over time. Also, because of their flexibility and depth of analysis, they are the methods best adapted to exploratory questions.

Field research methods have numerous advantages. They generally can provide deeper understanding than other methods, they permit a wide range of flexibility even after the research has started, they are generally low cost, and they have high validity. On the other hand, field research methods lack precision compared to other methods, result in answers that are more suggestive than definitive, and are usually not generalizable.

If Hypothesis 1 is not well defined, field research is especially well adapted to exploratory approaches to provide additional definition. Field interviews of public involvement participants can help provide the definition. The same can be said for Hypothesis 2, but with less strength. Because Hypothesis 2 involves the comparison of public involvement methods, more extensive field research covering a variety of public involvement procedures would be needed.

### **Content Analysis.**

Content analysis involves the analysis of written communications and, as such, is particularly appropriate for study of matters reflected in written records. Content analysis has the advantage of being low cost, potentially covering long periods of time, being unobtrusive, and having high reliability. However, it only examines recorded communications and has questionable reliability, unless the subject under study is communications.

With respect to Hypothesis 1 and Hypothesis 2, content analysis could be used, but is probably less appropriate than other methods examined. For example, attempts might be made to determine participant preferences and attitudes from public comment letters. The problem with this approach is that comment letters rarely address satisfaction directly and inferences would be required. Since comments may be written for a variety of reasons and intents, the reliability of inferences would be highly questionable. Similar problems exist in using administrative and court appeals records.

**Analysis of Existing Statistics.**

Analysis of existing statistics is a recommended social research method if the statistics exist. It is cost effective and unobtrusive (although the initial collection may have been intrusive). I am unaware of existing statistics that could be used to test the hypotheses.

**Historical/Comparative Analysis.**

Historical/comparative analysis is designed for examining social trends over time. Trend analysis is not the thrust of either of the hypotheses, and therefore this method is not appropriate.

**Recommendations.**

Certain of the social research methods discussed can be rejected as clearly inappropriate or suboptimal. These include the unobtrusive approaches (content analysis, analyzing existing statistics, and historical/comparative analysis) for which appropriate data are not available. In addition, while the experimental approaches are recommended for Hypothesis 2, they are not suited for testing Hypothesis 1, which takes precedence. This leaves survey and field research methods to be compared.

As discussed above, survey methods can be expected to provide quality testing of both hypotheses if the hypotheses are well defined and understood (although testing of Hypothesis 2 can be expected to be substantially more difficult and costly). Otherwise, survey questions may be ill framed for adequate results. While existing procedural justice and public participation research (both of which include survey work) provide an excellent base for understanding the hypotheses and framing questions, there are some aspects of the hypotheses

that could be better understood to improve survey design. The meaning of participant satisfaction in a public involvement context has not been fully explored. Thus, while participants can be asked directly whether they were satisfied with their experiences or decisions (the usual procedural justice approach), it is also desirable to understand what they mean by satisfaction. In this way, other indicator questions can be asked to verify answers. Similar questions can be raised as to the meaning of fairness. With respect to Hypothesis 2, greater understanding is needed as to the relative voice and value expressive levels associated with different public involvement methods. Do public hearings (which may allow for interaction) provide a higher degree of voice than letter writing (which may be accessible to more people)? Without some measure of this factor, survey comparisons may be difficult. (Comparative voice levels may be explored in a survey that also tests Hypothesis 2. However, if voice levels are found to be not significantly different among the public involvement methods examined, the hypothesis would remain untested.)

While field research generally would not be expected to provide more than suggestive testing of the hypotheses, it is well designed to providing exploratory analysis to clarify the questions discussed above. Thus, the researcher may conduct informal interviews of participants during public participation to better structure future survey research.

Based on the foregoing analysis, the following general social research approach, using multiple methodologies, is recommended:

- Conduct qualitative field research to clarify the hypotheses, including concepts of satisfaction, fairness, and voice levels;

- Conduct a single survey to test Hypothesis 1 before incurring higher costs of testing Hypothesis 2. To the extent the survey relates to one or more ongoing public participation programs, conduct simultaneous field research on those programs to increase the depth of understanding of survey results;
- Conduct a laboratory experiment of Hypothesis 2 before incurring higher costs of testing by survey; and
- Conduct a series of surveys using a quasi-experimental approach to provide limited control to further test both hypotheses. As these surveys will relate to ongoing public participation programs, simultaneous field research on those programs should be conducted to increase the depth of understanding of survey results.