CHOOSING RECREATION SETTINGS: PROCESSES, FINDINGS, AND RESEARCH DIRECTIONS

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ABSTRACT: This paper reviews the discussion contained in the 11 presentations given at a symposium on recreation choice behavior. It addresses major points of commonality in the papers, as well as areas where differences exist. It also suggests a number of areas in which additional research on recreation choice behavior is needed.

INTRODUCTION

Many issues confront us as we begin to try to understand recreation choice behavior. Choice is obviously not a random process, nor is it a process that is unique to each individual. Some areas and recreation activities are enormously popular, others are not. However, is the popularity an area or activity enjoys (or lacks) a function of the characteristics it possesses (or lacks), or is it a reflection of other factors such as relative availability, intervening opportunities, or the knowledge or skill held by the participant? Do people choose activities or places because of what they are familiar with, or because they want to "go along with the crowd"?

RECREATION CHOICE BEHAVIOR--SO WHAT?

How do recreationists choose the settings in which they participate? What are the factors that facilitate and constrain the choice process? Are some factors essential to choice, with others playing only a supplementary role, or do recreationists compensate for the unavailability of one factor by substituting another? Answering the questions is an important step in gaining a better understanding of what people seek from recreation and in determining how management can better provide desired recreation services.

One might ask, "So what? So we have a better understanding of choice and the role of attributes; in the final analysis people will use what is available, regardless of what a manager does." However, if we assume that the goal of recreation management is to provide benefits to the public, it becomes important that we understand how best to do this. Because people use what is currently provided does little other than tell us that they use what is there; it in no way ensures that an optimal level of benefits is being provided, nor does it ensure that the best use of land is occurring. Recreation managers need to address such concerns as choice behavior and site attributes, just as timber managers identify appropriate silvicultural systems for each timber type. Further, identifying desired attributes might reduce conflict, particularly between renewable resource management activities and recreational values.

A recreation setting may be defined as a place where the combination of physical-biological, social, and managerial characteristics or attributes gives that place value as a locale for leisure behavior (Clark and Stankey 1979). Physical-biological attributes, such as topography, vegetation, or water, provide the basic raw material for many recreational activities. They are also facets of the setting that management can influence, either directly or indirectly, through actions taken to achieve other management objectives. The importance associated with the physical-biological attributes of a setting varies among recreationists, between recreationists and managers, and, likely, with the timing and extensiveness of manipulations of such attributes. This latter characteristic makes it difficult to inventory physical-biological attributes in a fashion that can be commonly interpreted by all users or for all uses.

The following 11 papers in this proceedings explore the issue of recreation choice behavior at both theoretical and empirical levels. They were presented at the 1984 annual meeting of the Northwest Science Association held in Missoula, MT. The theme of choice behavior was selected as a result of the realization by many investigators that existing models of recreation behavior did not adequately explain how recreationists came to use particular settings in the first place, nor did they adequately cope with the linkage between the factors or attributes that comprise recreation settings (and which management is able to influence) and the kinds of experiences recreationists derive from participating in these settings.

AN ATTRIBUTE APPROACH

The setting--the place where recreation occurs--is clearly a major component of the process within which recreation services are demanded (Driver and Brown 1978; Clark and Stankey 1979). The activities in which individuals and groups participate and the experiences or social-psychological outcomes they derive from such participation are also important. Yet, the setting plays an especially important role in this scheme. It is where activity participation occurs and its attributes and condition can facilitate (or hinder) not only the activity engagement but the satisfactions obtained as well. Ultimately, it is the setting and the specific attributes that comprise it that is the focus of planning and management. Having a better

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understanding of how recreationists choose settings and how they evaluate them can give managers a better grasp of how their decisions affect user judgments of a site's ability to accommodate particular activities as well as provide different experiences.

Social attributes are those elements of the setting that are a function of the recreation use it receives and would include the amount, timing, and type of use. Social attributes are very important to many users and, as with the physical-biological attributes, the importance attached to them will vary among users, between managers and users, and with time, group affiliation, and other variables. Variable interpretations of social attributes can lead to vastly different conditions (for example, the number of other persons in sight or sound) being defined commonly (for example, solitude), or vice-versa.

The type, amount, and obtrusiveness of managerial activity represents the third class of attribute that shapes the nature of recreational settings. This attribute is a subtle influence because many actions are undertaken for the explicit purpose of protecting a particular setting, yet the very presence of the management activity can lead to a change in the kind of place it is. Also, actions instituted by managers to protect resource quality can thwart inadvertently the objectives of the recreationist, leading to sharp conflicts between the two groups. As Christensen and Davis (this proceedings) note, there are often sharp differences not only between the perception of impacts by managers and users, but also between their views as to the most effective methods of contending with such problems.

The relative importance of each type of attribute will vary among recreationists depending upon a variety of factors, including activity interests, experience, and expectations. Regardless of the specific significance associated with an attribute, however, an understanding of the role attributes play in the choice process employed by recreationists is critical to management. It is the setting (described by its attributes) that recreationists seek, use, and impact; it is the setting that managers manipulate, modify, or influence; it is the setting that is allocated to one dominant use or another. In this paper, we briefly review the themes underlying the papers in this volume that deal with how recreationists select settings and activities, and suggest research directions that hold promise for addressing unresolved questions. Understanding choice behavior is also fundamental to management because recreationists will use information about setting attributes in making choices; thus, managers play an important and active role in choice processes through provision of information about attributes.

A BROADENED RESEARCH FOCUS

Over the past decade, our understanding of what people seek from recreational engagements--indeed, our understanding of the nature of the recreation process--has increased greatly. Much of this increased understanding can be attributed to the work of Brown, Driver, and their associates. Their work, built upon the expectancy-valence theories of Ajzen and Fishbein (1980), conceives of recreational engagements as being a behaviorally founded production process. In this conception, visitors are seen as coming to sites with expectations and desires for specific types of satisfaction. They engage in activities at sites where the combination of physical, social, and managerial conditions helps them achieve their desired satisfactions. And, upon leaving the site, the achievement of desired satisfactions is seen as leading to subsequent personal, and perhaps societal, benefits (Brown 1979).

Expectancy-Valence Model Shortcomings

This conception of the recreation production process rests upon a model of human behavior in which behavior is rational. It also suggests a reductionist approach to the study of behavior. Nevertheless, the model has served well in identifying systematically critical elements of recreation behavior. It has, perhaps most importantly, highlighted the human experiences obtained from recreational engagements as the key product of recreation management efforts rather than the traditional measures of acres designated, facilities built, or participation recorded.

This focus on the experiences or outcomes obtained by recreationists led to necessary concerns with the recreational setting. It is the setting to which recreationists come; where they carry out activities, which they impact; and from where, in association with the activity, they derive their experience. The setting is also the element of the recreation production model that managers can influence, either directly or indirectly, through their actions. Finally, it logically follows that the characteristics or attributes of the setting should at least influence, if not control, the kinds of experiences that recreationists are able to obtain. For example, if solitude is the desired outcome, then a setting with few others would seem necessary. Conversely, if challenge and risk are desired, a setting laden with signs, barriers, and rangers hardly would be conducive to achieving those outcomes.

The linkage between setting and outcome, however, has proven to be a complex one, lacking any direct or easily predictable relationship. No deterministic tie between setting and outcome exists (nor has such a relationship ever been implied). At best, the link between a particular combination of attributes within a setting and the realization of some outcomes can only be expressed in probabilistic terms, or even more realistically, in broad, ordinally measured statements of likelihood. Some experiences appear to be essentially independent of the setting; for example, physical exercise or family kinship can be achieved in many settings and are not distinguished by varying setting characteristics (Driver and others, in press).

If we look at the setting-outcome linkage from the other direction (Can we identify desired settings if we know the desired outcomes?), there is little change in the situation. For example, Harris and others (this proceedings) report "the few efforts made to predict from perceived recreation outcomes or experience to use of different settings have had mixed results . . . . The more complex and mentally taxing compensatory processes like those operationalized with attitude and motivation theories do not seem to provide adequate representations of recreationists' decisionmaking processes." Schreyer and others (this proceedings) reinforce this position when they state that "the capacity to predict either behavioral or environmental choice through knowledge of motive scores has yet to be demonstrated." However, such expressed dissatisfaction does not constitute so much a rejection of the expectancy-valence model of recreation behavior as it reflects a recognition that this model does not adequately cope with the complex process underlying how recreationists choose settings. This conclusion is a recurrent theme throughout the papers in this proceedings.

Cognitive Development Models

Following along these lines, several of the papers give particular attention to the role of cognitive development in the recreation choice process. Williams notes that the cognitive development level of an individual refers to the amount and type of information a person has and that this is thought to influence the frame of reference within which that individual makes decisions about recreation choices. Harris and others attribute the growth of interest in the cognitive development model to a number of factors, including the availability of increasingly sophisticated statistical techniques, the need for better definitions of the returns on recreation investments, and, as noted earlier, the general dissatisfaction with the performance of the expectancy-valence model in explaining recreationists' choice behavior.

Because the cognitive development model focuses attention on the information an individual possesses and how that information is used, a number of important questions must be addressed: What types of information has the individual acquired? Through what sources? Through what experiences is this information base updated? How does the acquisition of new information lead to changes in choice behavior? Williams (this proceedings) notes that to distinguish cognitive development from mere change, there must be some underlying progress, order, and direction. Thus, with expanded cognitive development comes increasing differentiation (an increasing recognition of conceptual complexity), as well as increasing specialization (Bryan 1979) or an increasingly refined set of preferences and behaviors. With both comes a more complex manner in which the individual processes information regarding recreation choice.

Compensatory Versus Noncompensatory Models

A major issue discussed in several papers is the concept of compensatory versus noncompensatory choice models. Briefly, the compensatory approach suggests that recreationists evaluate setting attributes using a subjectively determined weighting system. A cumulative potential site utility score is derived for each alternative site based on the weight assigned each attribute. The site with the highest potential utility is chosen by the recreationist. The noncompensatory approach views recreationists as ranking the importance of attributes, then evaluating alternative sites on an attribute-by-attribute basis. For each attribute, the least satisfactory site(s) is eliminated, until only one alternative remains.

The compensatory choice model has its origins in the expectancy-valency framework described earlier. By coupling information on the value of specific outcomes with the perceived probability of achieving that outcome in particular settings, compensatory theorists argue that behavioral intentions can be predicted. But the compensatory model is complex and might represent an overrationalized view of recreationist decision behavior. The noncompensatory model is often supported as a simpler and more realistic approximation of how people make decisions, processing information in a sequential fashion from most important to least important.

Harris and others (this proceedings) suggest that respondents use noncompensatory choice processes rather than subjective utility approaches. Watson and Roggenbuck (this proceedings) expand on this assertion by suggesting that a lexicographic decision model is employed by recreationists in site selection. The lexicographic semi-order choice model used in their study assumes that recreationists order the relevant attributes and compare alternatives on the basis of acceptability; alternatives are systematically eliminated until there is only one satisfactory alternative left. Such a model predicted over one-half of the first choices of settings by the subjects in their study, and in nearly three-fourths of the cases, eliminated 80 percent of the alternatives.

Peterson and others (this proceedings) also discuss the importance of examining alternative, process-oriented choice models. In their discussion, they hypothesize that the relationship among some attributes might be lexicographic, while for others it is compensatory. Their research using a nested choice model was only partially supported, and as they conclude, "a good start but far from complete."

What is refreshing in these papers is the willingness of researchers to develop, test, and apply other approaches to choice behavior. These approaches seem to have an implicit recognition of the dynamic nature of choice behavior, and, to some extent, are more comprehensive than earlier attempts.

Psychological Versus Sociological Perspectives

Nearly all the papers in this volume focus on psychological or individual characteristics of the person in the choice situation. Only a few explicitly address the importance of group processes, normative standards, or other social influences in choice behavior. Although most researchers refer to choices satisfying the needs of individuals, Clark and Downing continually refer to the importance of "group needs," resolving intragroup conflict about alternatives, and the desires of the group in choice behavior situations. Schreyer and others also recognize the importance of accounting for this dimension when they state that "we cannot understand the link between motive and choice unless we know the social context."

One suspects that the social context is a much more significant factor in the choice process than currently recognized and understood. Recreation is almost exclusively a social behavior; decisions about what to do and where to go likely are made within the context of a group rather than by a single individual. Little is known about how groups obtain and interpret information or how conflicting ideas, motives, and desires are resolved. The dominance of psychological models of behavior probably accounts for the lack of recognition of the potentially significant role of group influences on choice behavior. It is important to build this element into models of choice behavior now, rather than "retrofitting" them later when the full importance is identified.

Choice Behavior and Substitutability

If we assume that recreationists follow some sort of systematic process in their evaluation of setting attributes, how do they accommodate, and respond to, situations where their choice is constrained? What happens, for example, if a key attribute is not satisfactory or missing altogether, but the setting is the only feasible alternative? Is it still an acceptable alternative, and, if so, is it capable of providing the same satisfaction to the recreationist?

Such questions raise the critical issue of substitutability. In the most general terms, substitutability refers to the extent to which one setting could effectively replace another in terms of its ability to accommodate particular activities and to produce particular outcomes. Substitutability is a concept with important implications to managers and planners who are faced with identifying and interpreting the consequences of actions that eliminate or alter recreation settings. Will providing a new setting to replace one eliminated by a timber harvest constitute an adequate and acceptable replacement for recreationists? Are settings just the sum of a set of attributes, or are there antecedent or situational factors critical to the area's definition as a substitute?

The question of what constitutes a substitute goes beyond the onsite characteristics. For an area to serve as a substitute it must constitute a real choice for the recreationist. The ideally endowed site cannot be considered a substitute if it is inaccessible, or if recreationists are unaware of it.

One can raise the issue of substitutability in terms of activities or the social context within which participation occurs. For example, an individual faced with the loss of certain setting attributes might substitute one activity for another or might substitute a particular activity style for another style in an effort to maintain participation at a favorite recreation site. In this sense, changes in the setting have induced shifts in demand for particular activities. Clark and Downing (this proceedings) also argue that the concept of substitutability can encompass substitutions in social group context.

The extent of the linkage between the concept of substitutability and choice behavior is reflected in its occurrence in the papers in this proceedings. In particular, the paper by Peterson and others (this proceedings) highlights the various disciplinary perspectives and models of substitutability, suggesting that the general behavior involved in the substitution process occurs in a wide variety of life settings. It is therefore likely that in investigating its nature and role in recreation settings we will discover important insights by carefully examining how substitution works elsewhere.

Shelby (this proceedings) details an interesting investigation of the perceived substitutability between two salmon fishing streams in New Zealand. His study provides clear evidence that recreationists perceive important differences between apparently similar recreation resources and illustrates how the foreclosure of one opportunity cannot be presumed to be offset by the physical presence of another in some simple one-for-one fashion. Shelby's results provide support for noncompensatory choice processes.

Allen (this proceedings) specifically addresses the problem of changes in site attributes because of the construction of a major powerline and its influence on big game hunters. His study found that new roads constructed for access to the powerline right-of-way and towers would negatively impact the experience of those hunters seeking remote-type opportunities. For this group of recreationists, a legitimate question to ask concerns the availability of substitute settings, their relative locations, and accessibility--What alternative real choices do they have?

Williams (this proceedings) identifies the difficulties that will arise as increasingly specialized recreationists, with highly specific demands for settings, find an increasingly narrower range of choice in terms of settings that meet their requirements. In the most extreme case, highly specialized recreationists (for example, advanced white water kayakers) might have only one area that offers the combination of attributes they desire. Because of the scarcity of such settings,

their vulnerability to change and the likelihood that users will be displaced are high, a situation not unlike that described for many threatened and endangered species.

FUTURE RESEARCH DIRECTIONS

The study of recreation choice behavior has only recently started. However, the selection of papers included in this volume suggests the range of perspectives and research methodologies employed in pursuit of greater understanding of this topic. Much research remains to be conducted. Based upon the discussions in the symposium papers and among participants, the following issues appear to warrant further research attention if we are to achieve a better understanding of recreation choice behavior.

Alternative Models

Here we suggest development of alternative choice models, such as those in the disciplines indicated by Peterson and others (this proceedings), and testing those models in a wide variety of decision situations. Such models need evaluation in terms of their ability to guide future research, and also in terms of their usefulness to management. We are encouraged by researchers' willingness to develop alternative models, particularly in the noncompensatory domain. We suggest continued examination of models developed in other disciplines for their adaptability to recreational choice.

One area of needed investigation only briefly discussed in the papers is that of routinized or habitual choice situations. Given the role of such choices in other spheres of everyday life, it is likely that much recreation choice behavior might also be in this category. We need to know not only how this behavior develops, but with what frequency, and how to model it.

The development of alternative choice behavior models implies a need to examine ways in which these alternatives might be integrated. Some approaches to choice might be founded solely in psychology, others in sociology, still others in economics and management science. Our perspective is that choice behavior is actually a set of behaviors and processes, some of which are more effectively modeled by one discipline, others by other fields of endeavor. It is important that researchers begin to think of linking their efforts with the aim of developing more holistic models of choice behavior.

Holistic model building will require collaborative efforts, leading to stronger models that more completely describe and explain the processes involved. The linkage from one discipline to the next will be difficult to establish but should be attempted nevertheless. We feel that such integrative model construction will lead to far greater understanding than continuing to pursue models within one's own discipline.

Compensatory and Noncompensatory Models

The papers in this volume focus on examining the differences in compensatory versus noncompensatory choice models and thereby represent the beginning of new research models. It might very well be that for some attributes decision processes are compensatory, while for other attributes such processes are noncompensatory. Watson and Roggenbuck argue that researchers must consider the latter model for it holds great promise for manager-developed information systems, and, consequently, visitors. Clarification of the choice process and its variability across the various contexts of decisionmaking is critical. For example, does the process vary for different setting opportunities, at different levels of resolution in the choice process (for example, macro- versus microscale decisions), or for different levels of specialization or differentiation?

Attribute Roles and Measurement

What role do attributes play in the definition of recreation opportunities? Peterson and others (this proceedings) cite consumer theory that posits that the object of choice is not the good itself but rather the attributes possessed by that good. Thus, from both a theoretical and management perspective, it is critical that we be able to identify the composition of recreation opportunities in terms of their attributes.

Within this broad research realm, a variety of specific endeavors are needed. Initially, it seems important to develop a framework within which attributes can be defined and related to one another as well as to other decision factors. Conceptualizations developed in the various disciplines that concern themselves with recreation behavior need to be carefully reviewed for their potential applicability or adaptation. Following this, there is a need to identify the attribute composition of different recreation opportunities. What patterns of variability or stability can be discerned across settings? Are some attributes deemed essential to the production of certain outcomes, or can different attribute combinations produce those same outcomes (this bears on the basic issue of compensatory versus noncompensatory decision processes)? What variability in attribute condition can occur before recreationists define it as unacceptable?

A better understanding of the relevant attributes that define recreation opportunities has many implications. For example, Beaulieu and Schreyer (this proceedings) express concern regarding the current USDA Forest Service ROS Users Guide (n.d.) because of its heavy emphasis on physical-biological attributes in defining recreation opportunities and the relatively minor role accorded social and managerial attributes. They argue that the focus on physical-biological attributes does little to provide managers with information about how other attributes contribute to opportunities or experiences. Additionally, we must acknowledge that if the ROS (or any other recreation planning

system) is founded upon a conception of recreation opportunities comprised of attributes not relevant to users' decisions, its utility is jeopardized. Christensen and Davis (this proceedings) provide clear evidence that user perspectives as to what constitutes the relevant aspects of desirable recreation opportunities are not shared with managers, leading to the imposition of controls that not only fail to address user concerns but that can actually increase problems of deviance and depreciative behavior.

Finally, identification of attributes must be coupled with a knowledge of the relevant units of analysis. For example, we might find that the level of use at sites is deemed an important setting attribute; however, how should that attribute be best expressed? Is it total number of individuals, number of groups, or is it some behavioral measure of who they are, what they are doing and where, and so forth? Recreationist advice on this matter is essential, as it is likely there are differences between managers and users as to how attributes should be measured.

Attribute Resolution Levels

A closely related issue is the level of resolution of attributes perceived by recreationists and managers. Schreyer and others (this proceedings) recognize the importance of this direction when they comment that "it is possible to construe the character of an environment as ranging along a continuum from macroscopic to microscopic." Clark and Downing (this proceedings) reinforce this position by stating that understanding the appropriate sequence of choices "may determine which macro and micro site ROS factors are likely to be salient in final place selection." Allen (this proceedings) recognizes the significance of detailed perception of attributes in his study of how big game hunters are affected by a powerline right-of-way and associated roads.

How do recreationists perceive settings? Are the general outlines of settings perceived, or are the details included in the perception? Here again, cognitive processes might be important. As Williams (this proceedings) suggests, increased differentiation and specialization can lead to increasingly specific settings; one would suspect that experienced recreationists perceive attributes at a different level than inexperienced ones. More cognitively developed recreationists probably also rely on different attributes than those less developed, even though the same activity is involved.

The Role of Experience

Recognition of the role of cognitive development suggests the importance of examining the influence of prior experience in an activity on one's perception of attributes. Outside of a few papers (for example, Schreyer 1982), researchers have all but ignored how experience influences recreation behavior, including choice behavior. Bryan's (1979) monograph concerning specialization certainly points to evolutionary processes in development of experience, changes in activity styles, and shifts in setting dependency. Whether one is speaking of images or cognitive sets, establishing linkages between experience and attribute perception and preference is an important task in a society that is becoming increasingly attached in an emotional way to resources.

Understanding how such images are formed is also important in interpreting the dynamics of recreation demand. For example, LaPage and Ragain (1974) note that declining per capita participation in camping might be related to the incongruency between the images held by individuals and created either by previous experience or through various marketing strategies and the conditions encountered onsite.

What is Being Chosen?

A fundamental research question involves resolution of this issue: Are recreationists choosing locales for their ability to produce certain social-psychological outcomes? Are they selecting a locale because of its attributes? Do they view recreation sites as places for activities? Or is the site incidental to group processes?

Clark and Downing (this proceedings) argue for the need to develop a "framework for relating people's decisions to choose specific places for particular activities . . . ." However, there exists a substantial literature based on what Schreyer and others (this proceedings) term the "belief . . . that particular patterns of behavior in given environmental settings would yield specific, identifiable kinds of products." Although this seems reductionistic or even deterministic, there is a considerable literature based on this perspective. What is needed is a constructive debate on the question.

The Role of Substitution

When decisions regarding recreation settings and activities are constrained, recreationists must consider alternative uses of their time and resources. The issue of what constitutes substitutability in recreation behavior and how recreationists process information to make decisions as to whether a setting constitutes an acceptable substitute for another is one of the most perplexing questions before us. Yet it is one with substantial implications for planners and managers and deserves expanded investigation.

The issue of substitution relates closely to many of the other research topics we have discussed. For example, knowing more about what it is that people choose when they make decisions is critical in the evaluation as to whether one setting is an acceptable substitute for another. Similarly, an improved understanding of the decision itself in terms of the compensatory versus noncompensatory nature of the process needs to be obtained so that

the extent of substitutability between settings can be understood.

Psychological and Sociological Linkages

We discussed earlier the emphasis the papers in this volume have on psychological factors over sociological ones in conceptualization about choice processes. Perhaps this reflects the dominant background of researchers today. Perhaps it is suggestive of the ease of measurement. And perhaps there is a presumption that group decisions are simply the sum of individual decisions.

Whatever the reason, we feel that sociological factors (group processes, development of internalized norms, and so forth) are critically important in choice behavior. Most recreation behavior in wildland settings occurs in group situations. The dynamics of group interaction, the effects of differing leadership styles, the balancing of conflicting interests among others, must all play a significant, if not dominant, role in choice behavior. It would be a mistake to develop models of choice behavior that somehow did not account for or include these factors.

Choice Behavior Disruption

We have recognized the implication that a shift in research focus from outcomes to process results in a much more dynamic view of the world. But even with the focus on a dynamic model of choice behavior there is a temptation to overlook disrupting factors such as changes in life cycles or site management. Somehow, research should also account for these disrupting situations: What are they? Under what conditions do they occur? How frequently do they happen? What impacts on the choice process do they produce? It could be that a model of choice behavior as eventually settled upon might be a model of behavior that is, statistically speaking, "average," but that actually occurs only infrequently. Given the natural variation in human behavior, disruptions likely are the rule rather than the exception.

We noted earlier that a great deal of choice behavior might be fairly well routinized. There is great security in maintaining routine behavior and it is likely this behavioral mode carries over into recreation behavior. However, what happens when this routinized behavior is disrupted? What coping strategies do recreationists employ to deal with the disruption? Is the disruption followed by a resumption of the original behavior or does it lead to altered behaviors? If the latter is the case, does the alteration collectively involve activities, settings, and outcomes, or are one or more of these elements of behavior maintained?

Experimental Design Needs

We are not the first to note the near total dependency on the ex post facto design in recreation research. Clark (1977), among others, has commented on the intrinsic limitations and utility of this design in answering questions of interest to researchers. In the field of choice behavior, we suggest more creativity in designing experiments, with alternative treatments, control groups, and so on to test hypotheses. In this respect the Williams paper here represents a desirable research direction.

Progress in understanding recreation choice behavior and the associated issues we have discussed will necessitate innovative methodological approaches and, likely, a reduced dependence upon cross-sectional surveys as a primary data source. In a paper not presented at the symposium, but included here because of its significance to the study of choice process, Clark and Downing develop a strong rationale for a qualitative, grounded approach to the investigation of choice behavior.

CONCLUSIONS

Intrinsic in the notion of recreation choice behavior is the recognition of the dynamic nature of human activity. Choice behavior, what it is, and how it occurs, is inextricably related to setting attributes. We suggest that a greater understanding of how people choose among alternatives will lead to a greater awareness of what settings are, and how managerial activity influences those settings. Greater understanding of the choice process will also allow managers to develop more sophisticated techniques to softly, lighthandedly, manage both sites and visitors.

Although the choice process is complex, it seems imperative that we gain a better understanding of it. For example, if we better understood the kinds of information recreationists consider essential to make decisions, we could better tailor information programs for people to use. Understanding more about the decision process could influence how information is made available as well as its timing and location. Knowing the importance of decision factors could also aid prediction of the kinds of impacts stemming from alterations in settings and the implications and consequences of such changes. And an understanding of the choice process is necessary to many of the education-oriented management programs in which there is increasing interest.

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