

COGNITIVE DIMENSIONS OF RECREATIONAL USER EXPERIENCES IN WILDERNESS: AN EXPLORATORY STUDY IN ADIRONDACK WILDERNESS AREAS.

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Abstract: This exploratory study involved identifying the dimensions of a wilderness experience sought by users based on the available literature and on input from wilderness users. Input was collected using focus group interviews with members of four groups that were primarily involved in wilderness use and preservation in recent years. Positive and negative dimensions are proposed for further research.

Introduction

Wilderness researchers and managers have tended to emphasize that the National Wilderness system must provide "opportunities for solitude". Researchers and managers have struggled with defining and measuring solitude for the last several decades (e.g., Graefe et al. 1984, Shelby et al. 1989). Many of the indicators used to measure solitude have been based directly or indirectly on the number of users, user density, and relative user distribution in a wilderness area. Using solitude as the distinguishing characteristic of wilderness and measuring it by the number of users or encounters has many advantages (e.g., direct physical measurement of numbers of users) for researchers, planners, and managers. However, there is increasing evidence to support the concept that solitude is more difficult and subjective to measure than originally anticipated and that recreational use of wilderness includes many other dimensions beyond solitude.

For example, another approach to evaluating user experiences and solitude was developed with the multi-dimensional concept of privacy (Lee 1977, Twight et al. 1981, Hammitt 1982, Hammitt and Brown 1984, Hammitt and Madden 1989, Priest and Bugg 1991, Hammitt 1994). While solitude is generally defined as being alone or being apart from usual associates, privacy implies more of a place or state of freedom from unwanted intrusion or observation by others. Privacy research includes solitude as well as

other components, such as the natural environment of the place, within a multi-dimensional approach that is more representative of the multiple motivations and satisfactions sought by a variety of users. However, the natural environment dimension has been ranked by Adirondack wilderness users as more important than the more traditional privacy items such as those related to cognitive freedom, intimacy, and individualism (Dawson and Hammitt 1996).

Research that redefines the concept of solitude as an opportunity for personal growth and development (Hollenhorst et al. 1994) has also raised questions about whether solitude was previously operationalized correctly in research on wilderness users and whether previous research results were valid as measured. Hollenhorst and others (1994) note that solitude achievement is hierarchical in nature and includes physical, emotional, intellectual, and spiritual components. Furthermore, they conclude that "the most effective predictors of solitude achievement were not physical characteristics of the setting, but rather predispositional factors that the visitor brings to the wilderness experience" (Hollenhorst et al. 1994).

These research issues about solitude and privacy raise many question about whether privacy or solitude are the most important single dimensions of a wilderness experience and whether there are other important dimensions that have not been traditionally measured about wilderness users. Such potential dimensions could include user challenge and risk, sense of spiritual experience and unity with nature, recreational skill building and testing, and others.

The Wilderness Act (1964) mostly defined solitude as the primary human experience of wilderness but did mention some other positive aspects of wilderness (i.e., it mostly defined wilderness by what it was not). The Eastern Wilderness Act (1975) defined more positive human values of wilderness as including: solitude, physical and mental challenge, scientific study, inspiration, and primitive recreation. We are concerned about the need to better identify and understand all of the basic dimensions of human recreational experiences in wilderness (i.e., beyond solitude and privacy). The identification and quantification of these dimensions will aid wilderness planners and managers in better understanding and providing for users.

Wilderness and recreation literature on the attributes of the user experience have been widely published (e.g., Manfredo et al. 1996, Dawson and Hammitt 1996, Hollenhorst et al. 1994, Roggenbuck et al. 1993, Scherl 1990) but no comprehensive wilderness experience attribute scale has been proposed. Some of the dimensions suggested in the literature on recreation experiences, wilderness values, and wilderness users indicates that dimensions could be categorized in many ways with both positive (e.g., psychological, social, skills and equipment use, and natural environment) and negative (e.g., user impacts, user - user conflicts) oriented dimensions. One approach to organizing these positive and negative

attributes is suggested in labor and management literature on Herzberg's two factor theory (Herzberg 1987) which includes attributes that are mostly negative (i.e., dissatisfiers) and those that are positive (i.e., satisfiers). According to Herzberg, the negative factors must be mitigated and there must be some measure of multiple positive attributes before an employee is satisfied in the work place. The extension of Herzberg's theory to wilderness user dimensions may be helpful to conceptualize and make distinctions between the positive and negative dimensions when constructing future studies.

The purpose of this study was to further explore the dimensions of wilderness user experiences using the New York's Adirondack wilderness system as a region to develop and test a new survey instrument. The objective of this paper is to identify the dimensions of a wilderness experience sought by users in Adirondack wilderness areas as a starting point for a future project that will quantitatively measure the dimensions of the wilderness experience for users in three Adirondack wilderness areas (i.e., with different user densities).

Methods

This exploratory research process involved identifying the dimensions of a wilderness experience sought by users based on the available literature and on input from wilderness users. Input was collected using focus group interviews with members of groups that are primarily involved in wilderness use and preservation in recent years. The qualitative research technique of focus group interviews has been used successfully by the author with other recreational groups in New York State (Dawson, Connelly and Brown 1993). Focus group interviews were held by invitation to various groups and took place in public meeting rooms. Four different locations were chosen in upstate New York and were to include 6-18 participants in each session. Each focus group discussion section lasted two hours and followed the methodology recommended by Krueger (1988).

The intent was to broadly sample the different types of users and identify the full range of wilderness user experiences sought in wilderness areas (i.e., dimensions of the user experience). Focus group interviews were conducted during the spring of 1997 and were intended as input to a field interview and mail survey process that was to be conducted in three Adirondack Wilderness areas in the summer of 1997. The use of the Adirondack Wilderness System for this study allows for a more directed discussion in the focus group sessions and later survey process in the summer of 1997. The value of this from a research design perspective is that all Adirondack wilderness areas have similar situational factors (e.g., geographic region, user residence areas, information available for user access, environmental settings, and weather patterns).

Results and Discussion

Four focus group interviews were conducted in the spring of 1997 with wilderness user groups of: (1) recreation

planners and managers at the Northeastern Recreation Research Symposium (24 participants); (2) Adirondack researchers and educators at the Adirondack Research Consortium Annual Conference (7 participants); (3) members of the central New York Chapter of the Adirondack Mountain Club (7 participants); and (4) undergraduate and graduate students at the SUNY College of Environmental Science and Forestry (9 participants).

The focus group interviews were very similar in the dimensions discussed even though the groups were from very different wilderness user segments (e.g., age, experience level, residence area). The written notes and audio tapes of the group discussions were used to compile the dimensions and some of the attributes that represent each dimension. Participants were relatively clear about the hierarchical difference between what was a dimension versus what constituted attributes within a dimension. Based on the focus group discussions and literature review, there was a distinction made between positive (satisfier) and negative (dissatisfier) dimensions and attributes of the wilderness experience.

A summary of the positive dimensions and some examples of the attributes are shown in Tables 1. These positive attributes represent the items that participants were most interested in discussing because these were the motivating force for them to seek out and experience wilderness. The total list of attributes discussed is very lengthy and could not be presented here in its entirety; these attributes are representative of those discussed.

A summary of the negative or dissatisfier dimensions and some examples of the attributes are shown in Tables 2. These attributes represent the items that participants were most concerned about because these were the issues that had (or could) lead to their dissatisfaction with a wilderness experience but which could be potentially mitigated by wilderness managers. The negative items that could not be affected by managers (e.g., ethics of the public) were dropped during the discussion as were factors that were outside the wilderness area (e.g., economic health of a region).

The listings in Tables 1 and 2 are qualitative in nature and no ranking between dimensions is implied (or appropriate) since all discussion was initiated by a participant and then discussed by the group as they wished to contribute to the group process. The next phase of this study will use the listing of positive and negative attributes from this process in a survey of Adirondack wilderness users who will be contacted on site during their trip in the summer of 1997. The intent of the overall project is to develop a list of positive and negative attributes that can be used in quantitative studies of wilderness users to measure their experiences. We think that the identification and quantification of these dimensions will aid wilderness planners and managers in better understanding and providing for users.

Table 1. Examples of cognitive dimensions of satisfiers and related attributes during recreational experiences in wilderness.

Psychological
• to relax • sense of self confidence • get away from daily routines • sense of self-sufficiency • sense of status and identity with others who share wilderness
Social
• freedom of choice • to experience places I read about or heard about from others • to be with friends and family • to experience group solitude and intimacy • to have a story to tell others later
Solitude
• enjoy being alone by myself in a natural setting • enjoy being with a small group of friends and no other people around • sense of getting in touch with myself • to allow personal freedom and choice
Spiritual
• sense of oneness with nature • feelings of mortality and fragility of life • reflections on life and living • to get in touch with my true self
Exploration
• to feel connected to a place that is important to me • to explore a natural environment • to feel like I was one of the first people to experience a place • sense of remoteness from cities and people
Inspirational
• to feel a sense of an earlier and rugged time in history • celebrate wilderness as a symbol of naturalness • to stimulate creativity
Physical and Physiological
• physical challenge and risk • for the excitement • get away from daily physical routine • physical exercise and health • sense of oneness with the rhythm of the recreational activity
Skills
• to improve low impact camping skills • to gain an understanding of or knowledge about wilderness use • to test recreational equipment use • to appreciate and improve wilderness travel skills • to learn how to deal with unpredictable natural situations
Natural Environment
• to observe and hear wildlife • learn to respect the forces of nature • to see different and dramatic landscapes • to see spectacular views and unique places • to experience mature and natural forests • to observe and appreciate the complexity of an ecosystem

Table 2. Examples of cognitive dimensions of potential dissatisfiers and related attributes, that could be managed or mitigated by wilderness managers, during recreational experiences in wilderness.

User and Management Impacts
• to see evidence of management activities • to experience burdensome user regulations • to see too many physical structures (e.g., bridges, signage) • to see litter on trails or campsites • to hike on heavily used trails • to experience a lack of adequate trail maintenance • to hear aircraft closeby
User - User Encounters
• to experience conflicts with other users • to hear many other people • to see many other people • to experience congestion at scenic vistas and summits • to experience congestion at campsites

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