Lifestyle as a Determinant of Participation Among Dispersed Forest Recreationists

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LIFESTYLE AS A DETERMINANT OF PARTICIPATION AMONG
DISPERSED FOREST RECREATIONISTS

by

John R. Butler

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Outdoor Recreation

Approved:

UTAH STATE UNIVERSITY
Logan, Utah

1981
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--John R. Butler
# TABLE OF CONTENTS

| Acknowledgements | ii |
| List of Tables | v |
| List of Figures | vi |
| Abstract | vii |

## Chapter

### I. LIFESTYLE IN OUTDOOR RECREATION: PROBLEM STATEMENT
- Introduction ........................................................................ 1
  - Lifestyle--A Recreation Characteristic ......................... 1
  - Lifestyle--Its Relationships to Research Needs ............... 2
  - Objectives of this Study ............................................. 6

### II. LITERATURE REVIEW
- Introduction ........................................................................ 7
  - Lifestyle--A Brief History ........................................... 7
  - A Theory of Lifestyle ................................................. 12
    - Introduction ............................................................ 12
    - Culture and Behavior ............................................. 14
    - Culture and Lifestyle ............................................. 16
  - Recreation Styles--Lifestyle Operates in the Outdoor Recreation Environment ......................... 23
  - Value Systems--Towards Measuring Lifestyle .................. 28
  - Grouping Recreationists--Identifying the Lifestyle Groups .................................................. 30

### III. A CONCEPTUAL MODEL OF LIFESTYLE IN OUTDOOR RECREATION
- Introduction ........................................................................ 34
  - Definition of Variables .............................................. 34
  - Statement of Hypotheses ............................................. 37

### IV. RESEARCH METHODOLOGY
- Study Population ............................................................. 39
- Study Areas ........................................................................ 40
TABLE OF CONTENTS (Continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Design</td>
<td>41</td>
</tr>
<tr>
<td>Sampling Procedure</td>
<td>42</td>
</tr>
<tr>
<td>On Site</td>
<td>42</td>
</tr>
<tr>
<td>Off Site</td>
<td>44</td>
</tr>
<tr>
<td>Operationalizing the Variables</td>
<td>45</td>
</tr>
<tr>
<td>Lifestyle Set</td>
<td>45</td>
</tr>
<tr>
<td>Recreation Group</td>
<td>49</td>
</tr>
<tr>
<td>Use History</td>
<td>49</td>
</tr>
<tr>
<td>Intensity of Involvement</td>
<td>50</td>
</tr>
<tr>
<td>Experience Expectations</td>
<td>50</td>
</tr>
<tr>
<td>Activity Type</td>
<td>51</td>
</tr>
<tr>
<td>Preliminary Analysis</td>
<td>52</td>
</tr>
<tr>
<td>V. RESULTS</td>
<td>54</td>
</tr>
<tr>
<td>Introduction</td>
<td>54</td>
</tr>
<tr>
<td>The Lifestyle Groups</td>
<td>55</td>
</tr>
<tr>
<td>Hypotheses Test Results</td>
<td>60</td>
</tr>
<tr>
<td>Further Analysis</td>
<td>67</td>
</tr>
<tr>
<td>VI. DISCUSSION AND CONCLUSIONS</td>
<td>71</td>
</tr>
<tr>
<td>Introduction</td>
<td>71</td>
</tr>
<tr>
<td>Summary of Findings</td>
<td>71</td>
</tr>
<tr>
<td>Discussion</td>
<td>72</td>
</tr>
<tr>
<td>The Lifestyle Groups</td>
<td>72</td>
</tr>
<tr>
<td>Testing the Model</td>
<td>73</td>
</tr>
<tr>
<td>The Values Themselves</td>
<td>75</td>
</tr>
<tr>
<td>Conclusions and Recommendations</td>
<td>77</td>
</tr>
<tr>
<td>LITERATURE CITED</td>
<td>80</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>88</td>
</tr>
<tr>
<td>Appendix A. Questions from the USU Dispersed Recreation Survey</td>
<td>89</td>
</tr>
<tr>
<td>Appendix B. Mail Survey: Cover Letter, Questionnaire, First Follow-up, Second Follow-up</td>
<td>93</td>
</tr>
<tr>
<td>Appendix C. Cluster Tree</td>
<td>100</td>
</tr>
</tbody>
</table>
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sampling days, June 23 to September 4, 1979</td>
<td>43</td>
</tr>
<tr>
<td>2. Survey samples by study areas</td>
<td>44</td>
</tr>
<tr>
<td>3. Example of standardization effect</td>
<td>48</td>
</tr>
<tr>
<td>4. Key to value abbreviations</td>
<td>54</td>
</tr>
<tr>
<td>5. Lifestyle group sizes</td>
<td>57</td>
</tr>
<tr>
<td>6. Rank order of values within groups</td>
<td>57</td>
</tr>
<tr>
<td>7. Significant relationships between lifestyle group and values (p ≤ 0.05)</td>
<td>61</td>
</tr>
<tr>
<td>8. Significant relationships between lifestyle group and experience expectations (p ≤ 0.05)</td>
<td>63</td>
</tr>
<tr>
<td>9. Group means and standard deviations for significant experience expectations</td>
<td>63</td>
</tr>
<tr>
<td>10. Lifestyle group by activity type</td>
<td>64</td>
</tr>
<tr>
<td>11. Significant relationships between lifestyle group and experience expectations when controlling for activity type (p ≤ 0.05)</td>
<td>65</td>
</tr>
<tr>
<td>12. Significant relationship between lifestyle group and experience expectations when controlling for recreation group (p ≤ 0.05)</td>
<td>66</td>
</tr>
<tr>
<td>13. Significant relationship between lifestyle group and experience expectation when controlling for use history (p ≤ 0.05)</td>
<td>67</td>
</tr>
<tr>
<td>14. Significant correlations (p ≤ 0.05) between values and experience expectations</td>
<td>68</td>
</tr>
<tr>
<td>Figure</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1.</td>
<td>A model of change in recreation behavior</td>
</tr>
<tr>
<td>2.</td>
<td>Gary Trudeau has even used the term &quot;lifestyle&quot; in his popular comic strip</td>
</tr>
<tr>
<td>3.</td>
<td>Conceptual model of lifestyle in outdoor recreation</td>
</tr>
<tr>
<td>4.</td>
<td>Example of clustering tree for five cases</td>
</tr>
<tr>
<td>5.</td>
<td>Value means by lifestyle group</td>
</tr>
<tr>
<td>6.</td>
<td>Group value means and standard deviations</td>
</tr>
<tr>
<td>7.</td>
<td>Least significant different test for values</td>
</tr>
<tr>
<td>8.</td>
<td>Least significant difference test for experience expectations</td>
</tr>
<tr>
<td>9.</td>
<td>Plot of privacy value by privacy experience expectation</td>
</tr>
</tbody>
</table>
ABSTRACT
Lifestyle as a Determinant of Participation Among
Dispersed Forest Recreationists
by
John R. Butler, Master of Science
Utah State University, 1981

Major Professor: Dr. Richard M. Schreyer
Department: Forestry and Outdoor Recreation

This study assesses the usefulness of lifestyle as a
determinant of outdoor recreation behavior. Two objectives of the
study are: (1) develop an operationalized concept of lifestyle
that is based on theory, and (2) apply this concept in a model which
uses lifestyle as a variable influencing recreation behavior.

The first objective was approached through an integrative
review of the literature. Lifestyle was set in context of cultural
theory. The basic postulate of the proposed theory of lifestyle is:
If an individual's lifestyle is similar to that of another, certain
social psychological processes are similar. Therefore, their patterns
of needs, motivations, and expectations are similar. Individual's
value profiles were proposed as an approach to measuring lifestyle.
A model was then proposed to test this.

Two hundred and forty-three dispersed road recreationists were
interviewed at three National Forest study areas. Of these 157
responded to a follow-up mail survey. Recreation behavior measures
(primary activities and experience expectations) were gathered on site. Lifestyle data was gathered in the mail survey.

The results indicate that lifestyle groups may be identified among dispersed road recreationists. However, tests of the model found no relationships between lifestyle group and primary activity, and few relationships between lifestyle group and experience expectations. Some problems with the methods, due to the exploratory nature of the study, are suggested as explanations for failure of the model. An analysis of the individual value dimensions, as an alternative to value profiles, suggests possible support for values as determinants of experience expectations.

(111 pages)
CHAPTER I
LIFESTYLE IN OUTDOOR RECREATION:
PROBLEM STATEMENT

The interesting thing about planning content in the future will be a pervasive concern for providing a rich, full scope for varied lifestyles (Perloff 1973:1).

Introduction

This introductory chapter has three objectives. The first is to set forth the general topic of study to be covered. The second is to link the general topic of lifestyle to more specific recreation research needs. The final goal of this introduction will be to outline the study objectives.

Lifestyle--A Recreation Characteristic

Many recreation research studies have applied social or social psychological concepts to recreation. The focus of such studies has generally been on recreation behavior. Lifestyle, defined as the behaviors of an individual that express his personal values and identification (Schreyer 1979), is a potentially significant outdoor recreation characteristic that has generally been overlooked by such research efforts.

Several recreation researchers have proposed lifestyle (or a related concept) as an important factor in recreation (Brown et al. 1973:20; Bryan 1977; Burch 1970:73; Cadez 1977:113; Robinson and Godbey 1978; Schreyer 1979:22). In spite of this, a review of the
literature revealed few studies dealing with lifestyle's influence on recreation behavior.

The theoretical basis for the concept of lifestyle as a possible outdoor recreation characteristic does exist. Briefly, the support for the usefulness of lifestyle arises from present conceptions of recreation. Driver and Tocher (1970) define recreation as being intrinsically rewarding experiences engaged in voluntarily by the individual during nonobligated time. Dumazedier (1974:146) gives a similar interpretation of leisure in which recreation is included. He states that "leisure assumes its new domain in society by asserting the right to fulfill the deepest aspirations of the individual." Lifestyle, is also thought to be a behavioral expression of some inner being. It is often conceived as the expression of an individual's values, beliefs, and sentiments (McKechnie 1972). Therefore, it is likely that an individual's lifestyle and his recreation behaviors are related.

Lifestyle--Its Relationship to Research Needs

"Today, most recreation research must ultimately have practical utility to be supported" (Kando 1980:80). Brown et al. (1973) suggest that recreation researchers should identify specific problems to which their research will be related, to ensure that the research applies to practical problems of recreation management and planning. This section of the introduction will identify a particular research need where lifestyle can be applied.

Recreation research needs have been outlined by various
recreation researchers (Brown 1977; Lime 1977; Brown et al. 1973). One general category of needs which has been identified may be labeled "patterns of use and characteristics of users." This area of investigation is important for understanding the dynamics of recreation. The goal of understanding patterns of use and relevant characteristics of users is a large one, obviously unattainable by any one piece of research.

A topic for study, within the broader category mentioned above is succession and displacement among recreationists. This phenomenon is implied in Clark and Stankey's (1979) discussion of the Recreation Opportunity Spectrum. Schreyer (1979) presents the most thorough discussion of the subject. He proposes operational definitions of the two concepts (p. 3, 6). Succession is "any sustained change in the character of recreational use of a resource that is predictable." Displacement is "any change in recreation behavior to maintain satisfaction in response to changes in the recreation environment." Basically, succession/displacement involves the behavioral response of recreationists to change. In the case of displacement, this change is in the recreation environment. The problem of displacement needs to be addressed by recreation planners and researchers, as it is a specialized case of user conflict in recreation (p. 7).

Once a research problem has been identified, Brown et al. (1973:18), suggest systems modeling as a useful technique for visualizing the dynamics of the problem. "The researcher designs a conceptual framework describing the linkages between variables acting and interacting in the decision process under investigation."
Schreyer (1979) used this approach and constructed a model for displacement (Figure 1).

The model is an attempt to illustrate the dynamics of variables thought to be important in understanding displacement behavior. It is a simplistic representation of a complex reality. The model is global in nature and cannot be approached in total, given the present state of knowledge. Research must focus upon one or several of the more specific types of relations which result from the general links of the model. This particular study will focus on the box labeled outdoor recreation characteristics. (For a discussion of the entire model see Schreyer, 1979.)

First, it is necessary to distinguish between antecedent conditions and outdoor recreation characteristics. Both boxes contain variables that may be linked with behavior. "O.R. Characteristics" are variables that are more directly linked to recreation behavior. In other words, they are general characteristics of an individual that actively interact with present recreation behavior, such as lifestyle, recreation group, self image, and income. Antecedent conditions, on the other hand, are illustrated by variables such as occupation and education. With these variables, the linkage to recreation behavior passes through "outdoor recreation characteristics." This distinction may be arbitrary, but the rationale for such is given by Schreyer (1979:21). Although there are a "potentially infinite number of characteristics identifiable as influencing recreation behavior," the goal is to "identify those characteristics which are of most use in understanding recreation
Figure 1. A model of change in recreation behavior (Schreyer 1979:20).
behavior." One such characteristic proposed by Schreyer is lifestyle.

**Objectives of this Study**

**Objective I:** Develop an operationalized concept of lifestyle which is grounded in theory. Such a concept does not currently exist for application to recreation behavior. In fact, lifestyle is not well defined in the field of marketing research where the concept is most often applied. Accomplishing this objective will require an integrative review of the literature.

**Objective II:** Apply this operationalized concept of lifestyle in a model which uses lifestyle as an outdoor recreation characteristic influencing recreation behavior. An attempt will be made to identify groups of recreationists based on lifestyle, and to determine whether or not this differentiation helps to understand recreation behavior.

---

1This model will not be the displacement model (Figure 1) as may be implied. At present, the model is too general and all encompassing to attempt operationalizing. The model used in this study will be set in the context of the displacement model.
CHAPTER II
LITERATURE REVIEW

Introduction

The purpose of this literature review is to support the application of a lifestyle model to outdoor recreation. It consists of five sections. The first two parts pertain to a "theory of lifestyle." In the first section, the background of "lifestyle" will be discussed. In the second section, a comprehensive theory of lifestyle will be proposed. The next part presents possible outdoor recreation research applications for the proposed lifestyle theory. The final two sections will present information necessary for the operationalization of lifestyle. The first of these will discuss values and value systems. The second will discuss techniques for grouping individuals.

Lifestyle--A Brief History

This section will present a brief overview of the historical use of the term "lifestyle" (also life-style, life style, and Lebens-Stil), and will indicate the difficulty of using lifestyle in scientific research. The term has been used by anthropologists, sociologists, and psychologists. Each discipline uses lifestyle in a different way, due to their different perspectives on human behavior. There are even variations on lifestyle within disciplines. The fact that lifestyle has entered popular language adds to the elusiveness of the concept.
In Sociology, lifestyle has its roots in a posthumously published work by Max Weber (Gerth and Mills 1947). In the early part of this century, Weber used the term "style of life" to refer to the elements and patterns of behavior which characterize members of various "status groups." Weber's status groups were defined by income and education. This concept of lifestyle is still held (e.g. West 1977). However, there are other sociological approaches. One concept of lifestyle (Vidich and Bensman 1960) emphasizes an individual's occupational group in defining lifestyle. Havighurst and Feigenbaum (1959), Michelson and Reed (1974), and Kelly (1975) define social groups by the roles individuals adopt. Each role group has a characteristic lifestyle. Bell (1968) uses consumptive patterns to identify groups which have characteristic lifestyles. Common to the above concepts of lifestyle is the social grouping of individuals, with lifestyle being employed in a descriptive sense. Each social group, however defined, is said to have a characteristic lifestyle.

In Anthropology, lifestyle is not widely used. However, it does appear in some cultural or subcultural studies (e.g. Whiting 1977; Stones 1977; and Hecht 1978). Here, the term is used in a descriptive sense similar to that of the sociologists. The groups in this case are defined by a common culture or subculture, and lifestyle is somewhat analogous to culture.

Related to the cultural concept of lifestyle is the idea of "alternate" or "nontraditional" lifestyles. This concept implies the existence of a normal, socially acceptable lifestyle and focuses on deviations from that. This "nontraditional" approach to lifestyle is commonly used in reference to family, sex, and marriage
Alfred Adler introduced the concept of lifestyle to psychology in 1929. Lifestyle was a key element in his theory of Individual Psychology. Adler saw "style of life" as a chief determinant of an individual's behavior. Important to Adler's concept of "style of life" was recognition of the "unity of the self." He felt this "self-consistent" unity was expressed in an individual's "thinking, feeling, acting, in his so-called conscious and unconscious" (Ansbacher and Ansbacher 1956:175). Adler was convinced that an individual's "style of life" was developed in the first four or five years of life. He also suggested that individuals were unique and that their "style of life" was built upon the individual's subjective view of self, his/her environment, and life. He recognized the dynamics of the concept in that "every individual represents both a unity of personality and the individual fashioning of that unity. The individual is thus both the picture and the artist" (Ansbacher and Ansbacher 1956:177). Adler hypothesized that, ultimately, an individual's "style of life" could be used to predict behavior. This was one of the major goals he set forth in his theory of Individual Psychology (Ansbacher and Ansbacher 1956:172-203).

Coleman (1960), in his text Personality Dynamics and Effective Behavior, uses lifestyle in a sense similar to Adler's "style of life." He states that "the developing self-structure of each person gives him a fairly consistent life style; a continuing pattern of assumptions and attitudes makes his behavior somewhat predictable..."
each person develops a unique and continuing pattern of key motives and purposes" (Coleman 1960:138). Like Adler, Coleman felt that "generalized patterns of response learned during infancy and early childhood form the basis of his characteristic life style" (Coleman 1950:95).

Powell and Royce (1978) also make use of lifestyle in describing individual motivation. Their analysis of human motivation is difficult to follow without thorough knowledge of the psychology of motivation. However, several points regarding lifestyle are made clear. First, "values and affect are integrated to produce distinctive lifestyles" (p. 1001). The values are described in terms of a "hierarchy of value-orientations," and affect is described in terms of a "hierarchy of affective factors." The resulting lifestyles are associated with "paths to being" or the "ways in which individuals attempt to make their lives meaningful" (p. 987). "Thus, life styles can be conceptualized as strategies for instantiating values and affect, or solutions (however tentative) to the decision problems entailed by the overall system goals and purposes" (p. 1001).

A similar, though less rigorous, approach to lifestyle is proposed by Feldman and Tilly (1960) and McKechnie (1972), among others. They base lifestyle on an individual's value system or value profile. For example, McKechnie (1972) differentiates between environmental life styles by using environmental dispositions. These dispositions are based on individual differences in values, beliefs, and sentiments.

In market research, the psychological application of lifestyle
is generally referred to as psychographics. Wells and Tigert (1971), Plummer (1974), and Perreault et al. (1978) are examples of this application of lifestyle. They equate lifestyle with an individual's attitudes, interests, and opinions. Lifestyle is generally measured in this instance with a large number of statements representing a wide range of possible discriminating attitudes, interests, or opinions. As opposed to Adler's individualistic approach to lifestyle, psychographics emphasizes the generalizability of lifestyle to groups, allowing identification of market segments.

Finally, it is necessary to discuss popular use of lifestyle. It is here that problems of inconsistent or vague usage are amplified. One place popular use of lifestyle may be found is as a section heading in newspapers and newsmagazines. The contents of these sections probably represent the general public's ideas of lifestyle. Articles in these lifestyle sections generally cover health, food, and clothing. They also contain advice columns and human interest stories. This use of lifestyle is similar to the broad view of the anthropologist.

The author found two additional popular uses of the term lifestyles. One of these was a game developed by the World Future Society (1980) called "The Life-Styles Game." In the game, personal experiences, and changes in social, spiritual, technological, and global scenarios bring about changes in the lifestyles of the players. This is also similar to the anthropologist's interpretation of lifestyle. The other popular use of lifestyle was found in the comic strip "Doonesbury" by Gary Trudeau (1979). Here,
lifestyle was used as a way of personalizing an individual's inclusion in "one of four or five basic profiles" (Figure 2). This is somewhat like Adler's individualistic view of lifestyle.

Lifestyle has been given a variety of different and often inconsistent meanings and applications. The cultural-social-psychological distinction may be viewed as ranging on a continuum. At one end of the continuum is the generalized lifestyle of a culture and at the other end is Adler's unique lifestyle of the individual. With the exception of market research application, lifestyle has been used in the descriptive sense. Through description, lifestyle has been employed to evaluate, compare, and classify. Due to its descriptive history and now its increased popular use, lifestyle "has been assumed to have little utility as an independent variable in accounting for other behavioral phenomena" (Michelson and Reed 1974:407).

A Theory of Lifestyle

Introduction

Should lifestyle be used as an independent variable, or does its past history preclude its use as such? Underlying every past use of lifestyle has been the notion of differentiation. Therefore, the concept of lifestyle, for use as a differentiating variable, may prove valid. That is, it could be used as an independent variable to help differentiate behavior.

Most attempts to use lifestyle as an independent variable have one common problem. They have generally accepted the concept
Figure 2. Gary Trudeau has even used the term "lifestyle" in his popular comic strip (Salt Lake Tribune, April 22, 1979).
"lifestyle" at its face value, and have utilized it without developing the basic theory supporting its operationalization. Recognizing this problem, several scientists have attempted to establish a theoretical concept of lifestyle (e.g. Lazer 1963; Hustad and Pessemier 1974; Michelson and Reed 1974; and Schutz et al. 1979). However, a consistent body of lifestyle theory does not exist. This part of the literature review will integrate concepts in the behavioral sciences and propose a basic theory supporting the generally accepted view of lifestyle and its use as an independent variable.

The general concept of lifestyle is represented well by Lazer (1963:130). He states that lifestyle "embodies the patterns that develop and emerge from the dynamics of living in a society." To establish a theoretical basis for lifestyle, the "dynamics of living in a society" must be focused on. Cultural theory takes a holistic view of human behavior in describing the dynamics of living in a society. Lifestyle may be based on this cultural theory perspective. Although an in-depth discussion of cultural theory is beyond the scope of this review, it will be discussed briefly to present a background for conceptualizing lifestyle. Lifestyle will then be presented in the context of culture.

**Culture and Behavior**

What a person does depends largely on his definition of the situation. Furthermore, he consistently defines a succession of situations based on his organized perspective. This perspective is an ordered view of one's world; what a person takes for granted
about the attributes of various objects, events, and human nature (Shibutani 1955).

"A perspective that is shared by a particular group" is how Redfield (1941:132) has defined culture. Culture consists of those "conventional understandings, manifest in act and artifact, that characterize societies." It follows, then, that members of a society can be expected to behave similarly in similar situations. This is due to their culture which gives them a common perspective. Culture is not a motivation of behavior, but is a mechanism for structuring behavior (Bauman 1973).

Similar views of culture's influence on behavior may be found in the literature. Kluckhohn (1962) relates culture to the shared, and historically created, "definitions of the situation" which are evident in a society's distinctive "ways of life." Good enough focuses on the role of culture as it functions in society. He says that "a society's culture consists of whatever one has to know or believe in order to operate in a manner acceptable to its members... It is the form of things that people have in mind, their models for perceiving, relating, and otherwise interpreting them" (Sturtevant 1964:101). Sorokin (1947:63) views culture in the context of human interaction. For him, culture is "the totality of the meanings, values, and norms possessed by the interacting persons and the totality of vehicles which objectify and convey these meanings." Foster (1973:11) chooses not to distinguish between culture and the manifestations of culture. From this broader view, culture is defined as "the common, learned way of life shared by members of a society, consisting of the totality of tools, techniques, social
institutions, attitudes, beliefs, motivations, and systems of value known to the group."

Culture is not biologically determined, but is learned. The behavioral patterns of a culture are acquired through the process of socialization. Culture is maintained through communication. People in each cultural group are continuously supporting one another's perspectives, each by responding to others in expected ways (Shibutani 1955). Tuan (1974:246) expresses the strength of this group reinforcement. He says that "the group, expressing and enforcing the cultural standards of society, affects strongly the perception, attitude, and environmental value of its members. Culture can influence perception to the degree that people will see things that do not exist."

Culture, as presented above, is a fairly abstract concept. The effect of culture has been observed and recorded in many anthropological studies. These have usually dealt with relatively small, well defined, and isolated societies (Benedict 1934; Foster 1973). Generally, cultural theory has been applied to aid programs for bringing about technological or social change in developing countries (Foster 1973). In order to apply cultural anthropology to modern mass society, the concept of culture needs to be realigned. Introducing the concept of lifestyle is helpful towards this end.

**Culture and Lifestyle**

Theory about the culture of traditional societies (common perspectives, promoting similar behavior, learned and reinforced through communication) appears to break down in modern mass society. It does not take a trained social scientist to observe the great
diversity of "ways of life" existing in American society. This is not to deny that an American culture exists. A number of studies have attempted to define the "American National Character" (Riesman 1972; DiRenzo 1977). There are useful statements which may be made about the "average" American which distinguishes him from people of other countries. However, focus on the "average" American is of little use when dealing with problems within American society. In fact, the "average" American does not really exist.

American society has become very complex due to the development of extensive transportation and communication networks (Shibutani 1955). In this complex American society "the individual belongs to more and more specialized groups" (Foster 1973:19). The perspective of each group is different from that of many other groups belonging to the same society.

The concept of culture requires a social group. So, the theory may still be applied to subgroups of a society. The difference is the level of analysis. Reference group theory (Shibutani 1955) is a term often applied to this more specific analysis. A reference group is the group an individual uses as a frame of reference in determining his behavior. As in cultural theory, the members of the group share a common perspective, behavior in a given situation is similar, and communication is the key to transmitting and reinforcing the perspective of the group.

The problem we face in studying individual behavior in modern American mass society is that a person participates in a variety of social worlds. Individuals have more than one reference group
determining behavior. This is due to the fact that a person may be exposed to a variety of communication channels. The channels may vary from newspapers to magazines to club newsletters and publications to television shows and different radio formats. There is also personal communication at home, at work, and with friends. This combination of cultural worlds differs from person to person (Shibutani 1955). Geographic location and social status may be important, but cultural worlds are not necessarily defined by such.

The problem is not as great as it seems at first glance. The different groups a person relates to tend to be mutually sustaining. That is, the values, attitudes, and beliefs of the cultural groups a person is a member of tend to be similar. Although the groups may emphasize different values, there is generally not room for conflicting perspectives.

Therefore, a person's behavior is influenced by his participation in various social groups and by his relationship with significant others (Feldman and Thielbar 1972). This behavioral pattern is the lifestyle of an individual. Andreasen (1967) states that lifestyle is a "concept connoting the totality of behaviors which comprise the characteristic approach to life of a particular individual or group." In the case of societies or defined social groups, lifestyle is the behavioral manifestation of their culture. In the case of individuals in complex modern society, lifestyle is the behavioral manifestation of an "internalized culture." The same basic processes exist in both cases, but are more complex in the second.
To further develop the concept of lifestyle, in the context of cultural theory, it is helpful to organize the discussion around Foster's (1973:12-24) six basic characteristics of culture.¹ These characteristics may be seen as assumptions underlying lifestyle.

1. **Sociocultural forms are learned.** This embraces the widely held view that the majority of human social behavior is learned. It is important to note that this concept does not imply that all human behavior is learned. Therefore, it allows for the description of human behavior from a perspective other than strict learning theory. As an assumption behind lifestyle, this concept means that an individual's "internalized culture" is heavily dependent upon a person's past experiences.

2. **A sociocultural system is a logically integrated functional sense-making whole.** As presented by Foster (1973:13-15), this concept means that any aspect of a sociocultural system is necessarily viewed in context of the whole system. Each aspect is a functionally integrated part of the whole. This concept is easily misinterpreted. Integrated does not mean consistent. It means that inconsistencies within a sociocultural system are parts of a sense-making whole. In other words, the "consistent" whole may contain "inconsistent" parts. This points to the complexity of a sociocultural system. Often this "logically integrated, functional sense-making whole" is not perceived by members of a society.

¹ Sometimes Foster uses the term "sociocultural." This is recognition of the fact that the characteristic includes the social system.
As a key assumption behind lifestyle, this concept views an individual as a logically integrated, functional, sense-making whole. This system concept implies that apparently irrational behavior of an individual may be understood as rational if enough is known about the whole individual. Adler presented this idea in his theory of Individual Psychology.

Sorokin (1947:313-324) sees this characteristic of sociocultural systems as an ideal which does not actually exist. For him, there are integrated, unintegrated, and contradictory relationships to be found between components of sociocultural systems. This should be accounted for in any operationalization of lifestyle, and will be brought up later.

3. All sociocultural systems are constantly changing, none are completely static. This dynamic aspect of sociocultural systems is relatively apparent upon review of history. Just as sociocultural systems are dynamic, so are "individual systems." One source of this change is the life cycle of an individual. One implication of this assumption is that, given a set of individuals over time, lifestyle category boundaries may shift, new categories may be created and other categories may disappear.

4. Every culture has a value system. "A value system gives stability to a culture" (Foster, 1973:18). It serves as a regulator of behavior for members of a society. In a complex society there may be a number of different value systems. So, it becomes more useful to speak of an individual's value system. Rokeach (1973:5) defines a value system as an "enduring organization of beliefs concerning preferable modes of conduct or end states of existence.
along a continuum of relative importance." Important here is the idea of a hierarchy. An extension of Foster's statement is that individual value systems are stabilizers of an individual's lifestyle. Therefore, measurement of value systems could potentially be used to identify lifestyles.

5. Cultural forms, and the behaviors of individual members of a society are functions of cognitive orientations. Returning to Redfield's definition of culture, cognitive orientation is identifiable in the "perspective that is shared by a particular group." In applying this assumption to lifestyle, a cognitive orientation may be found in Adler's conception of the active, creative self structure behind an individual's "style of life." Kelly's (1955) "Psychology of Personal Constructs" deals with an individual's cognitive orientations and their relation to human behavior. The fundamental postulate of his theory is that "a person's processes are psychologically channelized by the ways in which he anticipates events." Reynolds and Darden (1974:83) make use of Kelly's organization corollary in conceptualizing lifestyle as "the construct system that (an individual) characteristically evolves." Here, lifestyle is defined as a cognitive orientation. This thesis separates the two, but it should be apparent that they are highly interrelated. An individual's cognitive orientation, along with his value system, serves as the basis of lifestyle.

6. Culture makes possible the reasonably efficient, largely automatic interaction between members of a society. As Foster (1973:21) states:
Culture, through language and other symbols, provides for the communication and understanding that is essential to the ongoing activities of daily living. Culture may be thought of as a memory bank where knowledge is stored, available immediately and usually without conscious effort to guide us in the situations in which we routinely find ourselves. Culture supplies the "tips" and "cues" that enable us to understand and anticipate the behavior of other people and to know how to respond to it.

Culture is linked with communication here. Faules and Alexander (1978:5) define communication as "symbolic behavior which results in various degrees of shared meanings and values between participants." It is apparent that culture and communication are highly interrelated. Culture provides the structural basis for communication, and through communication, culture is transmitted and perpetuated. Lifestyle functions in this process as a mechanism which makes it possible to make assumptions about individuals. Through communication an individual expresses himself. Much of this communication may be nonverbal (see Leathers, 1976), and is highly interrelated with lifestyle. Related to this, is the idea that lifestyle is important to an individual's sense of self.

In summary, the best definition of lifestyle is a simple one: Lifestyle is the pattern of behaviors of an individual or group. When applied to a group, the behavioral patterns are those common to the group. When applied to an individual, a more specific individual pattern of behavior defines lifestyle. This may include clothing worn and other aspects of an individual's outward appearance, decisions made, activities participated in, organizations joined, products bought, etc. Based on this definition, lifestyle is nearly impossible to "measure."
It is better not to be concerned with a specific definition of lifestyle. Instead, lifestyle may be viewed as a theoretical approach to human behavior. The six basic assumptions of this approach have been set forth. The role of the scientist, after stating the assumptions, is to apply them to the study of human behavior.

The basic postulate of this theory of lifestyle is: If an individual's lifestyle is similar to that of another, certain social psychological processes are similar. Therefore, their patterns of needs, motivations, and expectations are similar. Secondly, knowledge of an individual's lifestyle enables prediction about some future behavior. The lifestyle of an individual may be seen as "having a general symbolic character, one that refers to and expresses a certain emphasis in motivation and action" (Levy 1963). Individuals are subject to similar social influences and experiences during the development of their individual lifestyles. This is the basis of the commonality within lifestyle groups, though these groups are not necessarily cohesive social entities.

Recreation Styles--Lifestyle Operates in the Outdoor Recreation Environment

The theory of lifestyle just proposed is fairly general. It does not specifically address outdoor recreation behavior. Lifestyle has already been suggested as a variable in the displacement model presented in Chapter I. In this section, the theory will be applied to other areas of recreation behavior.
Burch and Wenger (1967) address the idea of "styles" of recreation in their study of family camping, and set out to identify sociological characteristics that distinguish one style of camping from another. They had limited success in doing this and concluded that their data "revealed a highly complex pattern of relationships between social characteristics and camping" (p. 24). Recreation styles are not clearly tied to traditional sociodemographic variables. Burch and Wenger (1967) were seeking simple relationships between the variables relating to social characteristics and recreation style. A systems approach using lifestyle may work better than the simple social characteristics in describing recreation styles.

Several of Burch and Wenger's (1967) findings do support the lifestyle theory in outdoor recreation. With several variables they were able to find general trends. Among these were "childhood experiences in nature" and "attitudes toward other recreationists." "Childhood experiences in nature" is a limited operationalization of past experience. This relates to assumption one of the lifestyle theory. "Attitudes toward other recreationists" reflect a portion of an individual's value system. This relates to assumption four of the lifestyle theory.

Another study supporting lifestyle's application to outdoor recreation behavior is the Hendee et al. (1968) study of wilderness users. They differentiated between wilderness users by their attitudes. This was accomplished through administration of a wildernism-urbanism attitude test. The resulting two groups generally had significantly different management preferences.
Again, a portion of an individual's value system is reflected by his attitudes. Hendee et al. may have actually differentiated the wilderness users on one aspect of their lifestyle, the wilderness-urbanism continuum.

Lifestyle is consistent with the interpretations of recreation behavior proposed by Driver et al. (e.g., Driver and Tocher 1970; Driver and Brown 1975; and Driver 1976). Driver and Tocher (1970:12, 13) state that motivations to recreate "come primarily from learning based on past experience." Secondly, "the internal environment is important and each recreationist will process and appraise the information according to his individual cognitive style and for his individual purposes." Among recreationists, "recreation environments are perceived and valued differently, resulting in different uses of and experiences gained from similar environments." The theory of lifestyle is apparent in each of these concepts.

Lee (1972) proposes a sociocultural theory of leisure behavior which makes use of lifestyles. He states that "recreational settings might best be understood in terms of the meanings assigned to them by particular sociocultural groups" (p. 68). Lifestyle is one of the key identifiers of these groups. In generalizing his proposition to outdoor recreation areas, Lee (1972:72) states that recreation visitors are "likely to conform to definitions of place associated with activities and attractions, or establish idiosyncratic definitions of place that reflect the expectations of the sociocultural group with which they identify." As Haas and Plisco (1979:9) state, "planners and managers need to know the type of experience and resource setting which is preferred by the
users." Lifestyle may be useful in identifying various groups of recreationists with identifiable differences in preferences.

Lifestyle may also be applied to the understanding of conflict in outdoor recreation. Gerald Jacob (1978:6) identifies four major factors that produce conflict in outdoor recreation. The concept of lifestyle is reflected in the first three factors:

1. **Activity style**, which Jacob defines as the "personal meaning assigned to an activity";

2. **Recreation specificity**, which is "the importance attached to using a specific recreation resource"; and

3. **Mode of experience**, which is "the way(s) in which the natural environment is perceived."

Lifestyle is explicit in the fourth factor:

4. **Lifestyle tolerance**, which is the "propensity for acceptance or rejection of lifestyles different from one's own." Here, Jacob refers to the external manifestations of an individual's lifestyle. This could be one of the most important aspects of lifestyle as it functions in outdoor recreation.

Bryan (1977, 1979) also addresses the problem of conflict in outdoor recreation and is very much aware of the role "style" may play in this conflict. He developed a typology of fly fishermen based on their degree of specialization. "This is reflected by amount of participation and technique and setting preferences." (Bryan 1979:33). Bryan generalizes the case of fly fishermen to other recreational activities. One of the main points he makes is that activities are not necessarily relevant managerial categories. He states that:
A major implication of the specialization principle for outdoor recreation management is that managers can no longer assume that different sportsmen groups can be managed as if the labels themselves are adequate guides to policy. What must be ascertained are the orientations of subgroups within categories, subgroups which are formed by similar levels of specialization (1979:93).

Related to this, Driver and Bassett (1975) "found that variations in objectives and attitudes within the same type of user group also influenced perceptions of conflicts and other problems in a recreation area." Lifestyle has the potential to help identify these managerially relevant subgroups.

Finally, lifestyle may be applied to one of the more significant realizations of outdoor recreation research, the outdoor recreation opportunity spectrum. "The basic assumption underlying the recreation opportunity spectrum is that quality in outdoor recreation is best assured through provision of a diverse set of opportunities," as "a wide range of tastes and preferences for recreational opportunities exists among the public" (Clark and Stankey 1979:4). Quality "is not judged by the presence or absence of some factor (facilities, naturalness, or other visitors), but as the extent to which a given setting satisfies the desires of a particular recreationist" (p. 5). The recreation opportunity spectrum is recognized in the regulations for implementing the National Forest Management Act. Section 219.12 states that "a broad spectrum of dispersed and developed recreation opportunities in accord with identified needs and demands will be provided." Different lifestyles may be associated with the various recreation opportunities. At the very least, lifestyle is an important social characteristic of the recreation environment when delineating recreation opportunities (Lee 1972).
"Style" is inherent in each of these approaches to recreation behavior and related problems. This "recreation style" is dependent upon an individual's lifestyle. It may even be viewed as a subset of lifestyle. As Schreyer and Downing (1980:24) state, since "leisure represents the period in our lives over which we usually can exercise the most control, it is not unusual to perceive lifestyle being expressed increasingly through leisure associations."

Value Systems--Towards Measuring Lifestyle

Assumption four in the theory of lifestyle states that an individual's value system is an important stabilizing aspect of an individual's lifestyle. This indicates that an individual's value system would be a good base to work from to operationalize lifestyle. This section of the literature review will investigate this possibility.

First, it must be recognized that there is a great deal of confusion concerning values. "The term 'values' has been used variously to refer to interests, pleasures, likes, preferences, duties, moral obligations, desires, wants, goals, needs, aversions, and attractions, and many other kinds of selective orientations" (Williams 1979:16). Williams echoes Rokeach's definition of a value system in asserting that in order to "avoid such excessive looseness, we have insisted that the core phenomenon (of values) is the presence of criteria or standards of preference" (p. 16).

It is also worthwhile to point out that attitudes and values are often confused and the terms are frequently used synonymously. Rokeach (1968) differentiates between these two concepts. Attitudes
are related to specific objects or situations, while values transcend specific objects and situations. Values are "criteria or standards used by persons to guide and evaluate thought and action." As such values serve as a basis for attitudes. "A relatively few major value dimensions can constitute the organizing principles for thousands of specific beliefs and attitudes" (Williams 1979:22).

Value systems, rather than values themselves, have been proposed as the basis for operationalizing lifestyle. Williams (1979:17) points out that "differences among individuals may not be so much in the presence or absence of particular values, as in the arrangement of values, their hierarchies, or priorities." This hierarchical arrangement of an individual's values constitutes his/her value system.

Rokeach (1973, 1979) presents a number of studies where values have been shown to be related to behavior. These generally focus on a particular value (or values) and its (their) position in an individual's overall value system. Rokeach cautions that not all values in a person's value system are activated at any one time. Only that part of the system which is immediately relevant is activated. Feather (1975) suggests another caution when measuring values. This is that values as reported by individuals may be more related to an existing normative structure which the individual is familiar with, rather than an actual internalized value.

This short summary of values and value systems hardly does the field justice. However, a more complete review is beyond the scope of this thesis. Two good references on the subject are Rokeach (1973) and Feather (1975). Based on this summary, two important points to consider when measuring lifestyle are:
1. The value system is hierarchical, with order and relative positioning being important, and

2. Do not consider an individual's total value system. Select only values that may pertain to the situation.

Grouping Recreationists--Identifying the Lifestyle Groups

Identifying lifestyle groups involves grouping individuals into relatively homogeneous lifestyle groups. Basically, two different approaches to grouping recreationists have been used in the past. One has been primarily qualitative and the other quantitative.

The qualitative approach relies on quantitatively hypothesized categories. Scientists in the field of recreation and leisure studies have proposed various typological schemes, based on their observations and thoughtful insight. Some, like de Grazia's (1962) series of polar activity types, or Hendee, Gale and Catton's (1971) activity preference types, are fairly involved. Others, like Burch and Wenger's (1967) family camping styles and Romsa and Girling's (1976) frequency of participation within a particular activity, are fairly simple. In each case, the categories are observable, which makes them tangible.

Unlike the qualitative approaches, the quantitative approaches to categorizing recreationists do not necessarily produce observable groups. These approaches rely on multivariate cluster analysis¹

¹Cluster analysis will be used in the generic sense to mean any multivariate clustering of variables or objects. This includes factor analysis.
to determine groups of recreationists, not observation and logic. Any random set of dimensions could produce groups in a cluster analysis. Thus, although observation, intuition, and logic are generally used in selecting dimensions, there is some danger of ignoring theory in applying this technique. This is especially true when many dimensions are used in the analysis and only a few of these define the resulting groups. Two types of cluster analysis are identified by Tryon and Bailey (1970). One of these is V-analysis and the other is O-analysis.

V-analysis refers to the clustering of variables. Here, variables are grouped into dimensions that represent the relationships between variables in the data. Most of the studies using this approach have been attempting a quantitative representation of activity typologies like those proposed by qualitative categorizing (e.g. Bishop 1970; Burton 1971; Witt 1971; and McKechnie 1974). In these cases, the resulting dimensions are interpreted as activity typologies. Other researchers have used scales rather than activities in the V-analysis. Tinsley and Kass (1978) sought dimensions of need-satisfying variables among recreationists through factor analysis. Abbey (1978) factor analyzed vacation preferences and attitudes to find dimensions of these among the general population.

The other method of cluster analysis, O-analysis, refers to the clustering of objects. In the case of most recreation research, the objects are recreationists. Here, people are grouped according to their similarities across a set of variables. As with V-analysis, some of the studies using this approach have been trying to identify
activity types (e.g. Duncan 1978; and Romsa 1973). These have clustered people according to the activities they participate in. Ditton, Goodale, and Johnsen (1975) have taken this one step further and created subgroups within activities by using frequency of participation. These subgroups were then clustered. Tatham and Dornoff (1971) use socioeconomic characteristics as variables to cluster recreationists. Sometimes the dimensions for the O-analysis are taken from the results of a prior V-analysis (e.g. Gum and Martin 1977; Perreault, Darden and Darden (1977); and Hautaluoma and Brown 1979). McKechnie (1972) uses a combination of V-analysis determined dimensions and socioeconomic characteristics to determine clusters among people.

The quantitative approach is useful for measuring lifestyle when using an individual's value profile. It can handle the analysis needs of dealing with a number of variables. However, the danger of overlooking theory and observation must be avoided. Therefore, the value dimensions to be used will be hypothesized prior to the study, rather than creating dimensions out of the data. This is especially important, considering the small sample size.

Nunnally (1978:428) offers advice for choosing between V-analysis or O-analysis. He argues that "if one has theories concerning factors among variables, one should use R technique (V-analysis). If one has theories concerning factors among persons, one should employ Q techniques (O-analysis)." Here, Nunnally is referring to factor analysis, a special case of cluster analysis. However, his comment remains valid in the case of other types of clustering routines.
It is apparent that identifying lifestyle groups among recreationists should make use of O-analysis. This will involve clustering of people, based on their value profiles. As Nunnally (1978:438) states, "when groupings of people are not stated in advance of the analysis ... the purpose of the analysis is to 'cluster' persons in terms of their profiles of scores." Furthermore, "it is usually suspected that only some of the people will be members of relatively pure clusters and that most people will prove to be a mixture of the traits which define clusters." One should not expect to find clearly identifiable groups that, when combined, include the total sample.

Finally, there are three characteristics of profiles that must be considered in any cluster analysis. They are:

1. Level--"the mean score of the person over the variables in the profile."

2. Dispersion--"how widely scores in a profile diverge from the mean."


The researcher need not use each of these characteristics when clustering people. However, he must be aware of whether or not they affect the chosen clustering technique. Data transformations, as well as clustering routine, may affect the role of these three characteristics in a cluster analysis.
CHAPTER III
A CONCEPTUAL MODEL OF LIFESTYLE
IN OUTDOOR RECREATION

No description of behavior is true. At best, one description is more useful for a particular purpose than for another. No theory or description is anything more than a construction of reality imposed by the scientist for predictive purposes (Rotter et al. 1972:5).

Introduction

In this chapter the theory of lifestyle is applied to outdoor recreation behavior. Figure 3 presents a model indicating the relationship between key variables. The operationalization of these variables will be dealt with in Chapter IV.

Definition of Variables

Lifestyle Set will be the approximation of an individual's lifestyle. As mentioned earlier, it would be impossible to measure an individual's "pattern of behavior" or lifestyle. Therefore, this study will make use of the variable "lifestyle set," defined as: the relatively stable "internalized culture" of an individual that forms the basis of lifestyle. Predictors of this variable will focus on an individual's value system as opposed to frequently used demographics. This idea was brought out in discussion of the assumptions underlying lifestyle.

Recreation Specific Modifying Variables recognize the situational
Recreation Specific Modifying Variables
1. Recreation Group
2. Intensity of Involvement
3. Use History

Situation Specific Recreation-Style Set

Recreation Behavior
1. Experience Expectations
2. Activities

Figure 3. Conceptual model of lifestyle in outdoor recreation.
aspect of human behavior. An individual's lifestyle is constantly affected by situational variables. These recreation specific modifying variables are proposed to be especially important in the recreation environment. They may emphasize some aspects and diminish other aspects of an individual's lifestyle. Three modifying variables will be looked at in this study:

1. **Recreation Group** is the social group, if any, that the individual is a part of in the recreation environment. This recognizes that social influences on site are much more important than those off site.

2. **Intensity of Involvement** measures the degree of importance of the particular recreation experience. The more important the recreation experience, the less likely other intervening variables will weaken the link between lifestyle set and recreation behavior. In this respect, the recreation behavior becomes a more direct expression of an individual's lifestyle set.

3. **Use History** measures the amount of past experience an individual has had at a particular recreation site. Since past experience is so important to the development of lifestyle, a long use history at a particular recreation site may be an important factor modifying lifestyle set.

   **Situation Specific Recreation-Style Set** is the modified lifestyle set which is present in the recreation environment. This variable is more directly related to recreation behaviors than the more general lifestyle set.

   **Recreation Behavior** has a variety of possible interpretations. It may be represented by demand for experiences, activities
participated in, sites selected (dependent on neighboring social
groups, or physical characteristics), depreciative behavior, or any
other interpretation of recreation behavior. In this study, two
different approaches will be taken to operationalize recreation
behavior.

1. Activities: The first operationalization of recreation
behavior will use the primary activity of each subject to character-
ize activity groups. This will use the model with the traditional
activity approach to recreation behavior.

2. Experience Expectations: The second operationalization of
recreation behavior will use recreation experience expectations of
subjects to define groups with similar expectations. This will test
one alternative to the traditional activity approach to recreation
behavior.

Statement of Hypotheses

In order to examine possible relationships of lifestyle set to
the two interpretations of behavior, a series of hypotheses will be
tested. Following are the hypothetical statements and an explanation
for each.

Hypothesis I: Within a given recreation environment, persons
with different lifestyle sets will differ significantly in the
relative importance of experience expectations for a recreation
engagement. This hypothesis is a simplified application of the model,
interpreting recreation behavior to be experience expectations. It
tests the relationship between lifestyle set and experience expecta-
tions with no intervening variables accounted for.
Hypothesis II: Within a given environment, persons with different lifestyle sets will differ significantly in their activities participated in. This is similar to Hypothesis I, except that it interprets recreation behavior to be activities participated in.

Hypothesis III: Within the same activities, persons with different lifestyle sets will differ significantly in experience expectations. This hypothesis proposes experience expectations within activities as subsets of recreation behavior, and examines the possibility of the model working within activity groups.

Hypothesis IV: Recreation group will act as an intervening variable in the above relationships (Hypotheses I through III). Controlling for group type will increase the strength of each relationship.

Hypothesis V: Intensity of involvement will act as an intervening variable in the above relationships (Hypotheses I through III). Controlling for intensity of involvement will increase the strength of each relationship.

Hypothesis VI: Use history will act as an intervening variable in the above relationships (Hypotheses I through III). Controlling for use history will increase the strength of each relationship.

These six hypotheses are exploratory hypotheses. They are proposed to examine whether lifestyle set, as conceived and operationalized in this thesis, may be useful in understanding recreation behavior. Testing these hypotheses may indicate relationships which demand further investigation.
CHAPTER IV
RESEARCH METHODOLOGY

The lifestyle model was applied in a study of dispersed road recreation conducted by Utah State University. This chapter will outline the research methodology used in testing the model.

Study Population

Dispersed road recreation has been defined by Hendee et al. (1976:3) as "day activities and camping at informal, undeveloped sites (generally user established) along forest roads." It may be differentiated from use at developed campgrounds and recreation areas because there are no official facilities provided in the dispersed areas. Dispersed recreation may also be distinguished from wilderness and backcountry recreation by its vehicle accessibility.

It was thought that dispersed road recreationists would provide a fairly diverse population to sample. This assumption was based on three qualities of dispersed road recreation areas. They are:

1. Dispersed areas are not activity specific. Thus, a number of activity types are possible.

2. In dispersed areas, people are able to spread out. Thus, there are relatively weak social constraints.

3. Dispersed areas have few regulations. Thus, things prohibited in other areas are allowed in these areas.

This diversity increased the probability of finding a variety of lifestyle groups with which to test the model.
Study Areas

Criteria for the selection of the three study areas were:

1. The access routes were dirt or gravel roads, passable by two-wheel drive passenger cars.
2. There were developed sites available to those who preferred them (these were excluded from the study area).
3. Four-wheel drive roads existed within each study area.
4. No unusual recreation attractions were present.
5. The transportation systems were fairly closed.
6. Open to other forest uses such as grazing, mining, and logging.

The general location of the study areas and their distances from population centers and major recreation attractions are:

1. Uinta Study Area. Located about 30 miles south of Evanston, Wyoming on the Evanston Ranger District of the Wasatch National Forest; approximately 110 miles from Salt Lake City and Ogden, Utah.

2. Monte Cristo Study Area. Located about 40 miles east of Ogden, Utah, on the Ogden Ranger District of the Wasatch National Forest; primarily used by Ogden area residents.

3. Greys River Study Area. Located about eight miles south of Alpine Junction, Wyoming; approximately 240 miles from Salt Lake City, Utah; and 90 miles from Yellowstone National Park's south entrance.
Research Design

Data for testing the model were collected in personal interviews at recreation areas, and in a follow-up mail survey. The purpose of the on-site questionnaire was to obtain reliable data on recreation behavior and group composition, avoiding recall problems. There were two considerations in the decision to make use of a mail-back questionnaire sent to the subject's homes, as opposed to collecting all data with the on-site questionnaire. First, it was assumed that the home would provide the least constrained environment for responding to a series of value scales, and would produce the most accurate indication of an individual's lifestyle set. The mail-back format strengthens this assumption due to the fact that the respondent is free to choose when he fills out the questionnaire. The second consideration was the desire to minimize the intrusion upon a subject's recreation experiences. The questions from the on-site questionnaire that are relevant to this study are listed in Appendix A and the mail survey is in Appendix B.

The drawback in using the follow-up questionnaire approach is the reduction of sample size due to nonresponses. However, two points encouraged anticipation of a relatively high response rate. First, it was necessary to obtain names and addresses from respondents on site. At this time they were told that there would be a follow-up study, and their cooperation was asked for. Secondly, Lucas and Oltman (1971) offer encouragement in their comparison of wilderness visitor studies. They found quite a high return rate of mail-back questionnaires sent to wilderness visitors. It was hoped that this
trend would carry over to the outdoor recreationists studied here.

The on-site questionnaire, and the methodology for administering it, were pretested from May 26 through June 16, 1979. A total of forty people were contacted during this time. The pretest period also served to acquaint the researcher with the study areas and with the field research methodology. The questionnaire for use with the mail survey was also pretested. The sample size for this pretest was fifteen dispersed recreationists.

As a result of the pretests, adjustments were made to the field sampling methodology and both of the questionnaires. The changes in the questionnaires were mainly reductions in the number of statements measuring the values and experience expectations. The field sampling methodology was actually worked out during the pretest. This was mostly a case of adjusting to an untried research situation. Only the final form of the questionnaires and field sampling methodology will be reported.

**Sampling Procedure**

**On Site**

For the field research portion of the study, people were contacted at their campsites. This was the system that worked best during the pretest. While at their campsites, people were most relaxed and open to spending time answering the questionnaire. Campsites were discovered by traveling the roads within each study area in a systematic manner. When a campsite with people present was encountered, the people were approached, and the leader was asked
to participate in the study. The leader, or head of the party was identified by asking questions like "Who would you consider the head or leader of your group?" and "Whose idea was it to come up here?" The leader was not always identifiable, sometimes was not there, and sometimes would not participate. In these cases, another participant was selected. Also, in the case of large groups, two or three people were asked to participate. Only once, throughout the study, did an entire group refuse to participate.

The drawback of the sampling methodology was that it may have over-sampled those people that tended to spend more time at their campsites. To minimize this tendency, an attempt was made to travel through given sections of the study areas at different times of the day. Also, a schedule was set up for spending time at the study areas. This spread the sampling days evenly across all study areas. Weekend and weekday sampling days were also evenly distributed. Sampling began on June 23 and ended October 19, 1979. A breakdown of the sampling days in each area through September 4 is given in Table 1. Due to limited resources and a reduction of recreation use, the sampling during the remainder of the period was limited to weekends and the Uinta area.

Table 1. Sampling days, June 23 to September 4, 1979.

<table>
<thead>
<tr>
<th>Area</th>
<th>Weekend (Fri.-Sun.)</th>
<th>Weekday (Mon.-Thurs.)</th>
<th>Holiday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uintas</td>
<td>11</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Grey's River</td>
<td>8</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Monte Cristo</td>
<td>8</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>11</td>
<td>3</td>
</tr>
</tbody>
</table>
Off Site

The mail survey design set forth by Dillman (1978) was followed for this phase of the study. All subjects in the field survey who gave their address were sent a questionnaire with a cover letter. One week later a post card reminder was sent to everyone. This served "as both a thank you for those who [had] responded and a friendly and courteous reminder for those who [had] not" (Dillman 1978:183). Three weeks after the initial mailing, all nonrespondents were sent a letter and a replacement questionnaire. This was the final attempt to receive a response.

A total of 243 people responded to the field survey. Of those, 230 gave their name and address to be used in the follow-up questionnaire. There were 157 responses to the mail survey, with 5 returned as not deliverable. A breakdown of the survey samples by study areas is given in Table 2.

Table 2. Survey samples by study areas.

<table>
<thead>
<tr>
<th>Study Area</th>
<th>On-Site Questionnaire</th>
<th>Mail Survey Delivered</th>
<th>Mail Survey Returned</th>
<th>% Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uintas</td>
<td>152</td>
<td>140</td>
<td>94</td>
<td>.67</td>
</tr>
<tr>
<td>Greys River</td>
<td>69</td>
<td>64</td>
<td>50</td>
<td>.78</td>
</tr>
<tr>
<td>Monte Cristo</td>
<td>22</td>
<td>21</td>
<td>13</td>
<td>.61</td>
</tr>
<tr>
<td>Total</td>
<td>243</td>
<td>225</td>
<td>157</td>
<td>.70</td>
</tr>
</tbody>
</table>
Operationalizing the Variables

Lifestyle Set

The individual's value system will be used to determine lifestyle set. After a review of numerous scales, seven were chosen for their reliability, and apparent relevance for the recreation environment. As indicated earlier, the statements used for these scales were in the mailed questionnaire.

Five of the scales came from the "Environmental Response Inventory" used by McKechnie (1972) to determine "Environmental Lifestyles." They are:1

1. Pastoralism. Taps differences in individual appreciation of the natural environment and desire to preserve it.

2. Urbanism. Taps differences in individual appreciation of city life and enjoyment of urban experiences.


4. Value Privacy. Taps differences in individual preferences for physical isolation from people and their activities.

5. Mechanical Orientation. Taps differences in individual understanding and appreciation of the world of mechanical objects and technological processes.

Two more scales were included in the value system measurement. It was felt that they added two important values that were not

---

1These descriptions are modified from those that McKechnie (1972:56) gives. Also, the pastoralism scale used in this study was actually a combination of McKechnie's pastoralism and environmental adaptation scales, which seem to measure two different ends of the same value continuum.
contained in the "Environmental Response Inventory." They are:

6. Acceptance of Authority.\(^2\) Taps differences in individual respect for law and order and governmental authority. This scale was included due to the unique aspect of dispersed road recreation which is the relative absence of regulation and other symbols of authority.

7. Feeling of Anomie\(^3\) Taps differences in an individual's outlook on both his or her own life, and on society in general. A number of people have identified leisure with individual fulfillment (e.g. Dumazedier 1974; Cskszentmihalyi 1975; Yankelovich 1978:49). Therefore, it seemed important to include a value scale that related to an individual's personal outlook on life.

These seven scales consisted of three or four statements each. All statements were intermixed on the questionnaire. In Appendix B, each statement is referenced to one of the scales with the scale number in parentheses in the margin. Subjects were asked to respond to each statement on a six point continuum which ranged from strongly agree to strongly disagree. The directions used were:

The first thing we would like to find out is the extent to which you agree or disagree with several general values, beliefs or sentiments found in our society.

Please read the statements and then circle the response which best represents your immediate reaction to the opinion expressed. For example, if you strongly agree, circle +++.

---

\(^2\)The "Acceptance of Authority" scale is composed of statements from Webster, Sanford and Freemen's "A New F (Authoritarianism) Scale" (Robinson and Shaver 1973:528-530).

\(^3\)The "Feeling of Anomie" scale is made up of statements from McClosky and Schaar's "Anomie Scale" (Robinson and Shaver 1973:252-255).
The actual determination of an individual's lifestyle set will be covered in the following chapter. However, an outline of the procedure that was used follows:

1. Check statement scores within scales to be sure there is an overall significant positive relationship between scale items.
2. Compute an individual's average score for each scale.
3. Cluster respondents, using their value profiles as basis.

The third step is the key to this operationalization of lifestyle set. Lifestyle set proposes the existence of factors among people, rather than factors among variables. As indicated in the literature review, object cluster analysis is the appropriate approach to use in determining factors among people.

The value profile used in the cluster analysis was not the raw score profile. Rather, the raw scores were standardized for each person, and then used in the analysis. The standardization formula that was used is:

\[ z = \frac{X_i - \bar{X}}{SD} \]

where 
- \( z \) = standardized score
- \( X_i \) = score on the ith value
- \( \bar{X} \) = mean raw value score for individual
- \( SD \) = standard deviation of individual's raw value scores

The effect of this standardization is to neutralize the response pattern biases of some people tending to give more extreme responses than others and some people tending to key on one end of the six point scale. This allows the cluster analysis to operate on the relative positions of values within each person's profile which is
the most important aspect of lifestyle set. Table 3 gives an example of this standardization effect.

Table 3. Example of Standardization effect.

<table>
<thead>
<tr>
<th></th>
<th>Person A</th>
<th></th>
<th>Person B</th>
<th></th>
<th>Person C</th>
<th></th>
<th>Person D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Score</td>
<td>Std. Score</td>
<td>Raw Score</td>
<td>Std. Score</td>
<td>Raw Score</td>
<td>Std. Score</td>
<td>Raw Score</td>
<td>Std. Score</td>
</tr>
<tr>
<td>Value 1</td>
<td>6</td>
<td>.87</td>
<td>6</td>
<td>.87</td>
<td>2</td>
<td>.87</td>
<td>6</td>
</tr>
<tr>
<td>Value 2</td>
<td>1</td>
<td>-.87</td>
<td>5</td>
<td>-.87</td>
<td>1</td>
<td>-.87</td>
<td>1</td>
</tr>
<tr>
<td>Value 3</td>
<td>6</td>
<td>.87</td>
<td>6</td>
<td>.87</td>
<td>2</td>
<td>.87</td>
<td>3</td>
</tr>
<tr>
<td>Value 4</td>
<td>1</td>
<td>-.87</td>
<td>5</td>
<td>-.87</td>
<td>1</td>
<td>-.87</td>
<td>4</td>
</tr>
</tbody>
</table>

An explanation of Table 3 follows: In this example, note that each respondent has a different raw score, but A, B, and C's standardized scores are identical; A, B, and C use only a small portion of the possible six point scale, whereas D uses most of the scale; A gives very extreme responses, while B and C have narrow response ranges; and B and C use opposite ends of the scale. It was assumed that the above characteristics of A, B, and C's raw profiles indicated response biases, and that their value profiles were actually quite similar. Thus, standardization equalized the profiles. Also note that A and D had the same range of raw scores (1-6), but the range of D's standardized scores is less than that of A's. Since A does not use points between the extremes, and D does, it was assumed that, on the average, A's rating of six was actually lower than D's. Thus, the standardization causes A's high and low values to be less extreme than D's (e.g., 0.87 vs. 1.20).
There are some drawbacks to this standardization that are not indicated in the example, but are implied by the formula. The formula adjusts each profile so that the mean is zero and the standard deviation is one. This means that the standardized profiles have the same level and dispersion, and only differ in shape (see Nunnally's [1978] characteristics of profiles in the literature review). In reality, profile levels and dispersions for a given set of values are not constant, but vary from individual to individual. Therefore, the results of the standardization cannot be assumed to represent reality. They are only assumed to represent reality better than the raw scores.

Recreation Group

Recreation group was operationalized by observing the sex and estimating the age of group members present during the on-site survey. Groups were then categorized as either homogeneous or heterogeneous in age, then further categorized as either homogeneous or heterogeneous in sex. This created four types of recreation groups. They are:

1. Peer groups--same sex
2. Peer groups--mixed sex
3. Mixed age groups--same sex
4. Mixed age groups--mixed sex.

Use History

The operationalization of use history is based on the time span over which an individual has been using the particular dispersed road recreation area. To measure this, the on-site questionnaire asked "How many years have you been coming to this dispersed road recreation area?" There are a number of other ways this could have
been operationalized, but this seemed to present the best chance of obtaining a reliable response.

**Intensity of Involvement**

This variable was measured in the mail survey. It was felt that intensity of involvement might be exaggerated if it were measured on-site. The question was "How important is this type of outdoor recreation to you?"

A series of lead-in questions preceded this question in order to create the proper context for response.

**Experience Expectations**

The source for operationalization of this variable was Driver's (1977) "Item pool for scales designed to quantify the psychological outcomes desired and expected from recreation participation."

Sixteen scales were chosen from the pool of 39 scales. The criteria for selection of scales were:

1. Apparent usefulness given the type of recreation being studied.
2. Relatively low correlations with other scales.

The experience expectations selected were:

1. Achievement--competence, testing
2. Autonomy--Independence/Autonomy
3. Autonomy--Control/Power
4. Leadership--teaching/sharing skills
5. Family Togetherness
6. Being with similar people/social contact
7. Meeting new people
8. Appreciating scenery
9. Learn about nature
10. Reflect on personal values/introspection
11. Creativity
12. Escape personal/social pressures--tension release
13. Escape personal/social pressures--daily routine
14. Escape physical pressures--open space
15. Escape physical pressures--privacy
16. Escape family

These scales were on a self-administered questionnaire used during the interview. The scales consisted of two statements each, which were intermixed on the questionnaire and scored on a six point scale ranging from extremely important to not at all important. The directions preceding the statements requested the respondent to answer with regard to "this trip." This was to avoid responses relating to more general recreational desires. In Appendix A, each statement is referenced to a scale with the scale number in parentheses in the margin. The raw scores on these scales were calculated by averaging the statement scores, and then were standardized for each respondent.

Activity Type

Activity type was operationalized by asking "What activities are you participating in while in this area?" And secondly, "Which activity do you consider the primary activity?" These questions were asked on the on-site questionnaire.
Preliminary Analysis

The preliminary data analysis described here was necessary before beginning the actual analysis which identified the lifestyle groups and tested the hypotheses. It is reported in this chapter because it pertains more to the research methodology than to the results of the study. In this, and in later analysis scale data have been treated as interval. The reason for this is given in Labovitz (1972).

The first step of the preliminary analysis assessed the reliability\(^1\) of the overall responses of each subject, in the mail survey. The respondent's sex was asked in the mail survey, and observed on site. If these did not correspond, the respondent was dropped from the sample. It was assumed that the subject's responses were unreliable, or that he/she was not the same person. There were 20 of these cases, reducing the sample size from 157 to 137.

The next step was a check of the inter-item correlations within each scale. All items within each experience expectation scale, and six value scales were significantly correlated (\(p \leq 0.05\)). One of the statements in the "Feeling of Anomie" value scale was not significantly correlated (\(p \leq 0.05\)) with the other statements in the scale. Therefore, this statement was dropped from the scale. At this time, it was decided to reduce the remaining two four-item value scales to three-item scales. The three statements dropped as a result of these decisions are indicated on the questionnaire in Appendix B with an asterisk (*) in the margin.

\(^1\)Reliable is not intended in the statistical sense here.
The final step was computing the individual value profiles and standardized experience expectations. First, the raw scores were determined by averaging the statements in each scale. If one or more of a scale's statements were missing, its score was not computed for that individual. The value scores were then standardized for each person. If one or more of the individual's value scores were missing, his/her standardized scores were not computed. There were 17 such subjects, reducing the sample for the rest of the analysis to 120. The standardized experience expectation scores were handled similarly, except respondents were allowed to miss one experience expectation out of the total of 16. In other words, if two or more experience expectation scores were missing, then standardized scores were not computed for that individual.
CHAPTER V
RESULTS

Introduction

An attempt has been made to apply the concept of lifestyle to recreation behavior. "Lifestyle set," based on an individual's value profile over seven selected values, has been used to operationalize the concept of lifestyle. Recreation behavior was operationalized using both experience expectations and primary activity. A model describing the relationship between lifestyle set and recreation behavior was proposed in Chapter III, and several hypotheses were set forth to examine the validity of the model.

The results will be presented in three parts. Part one identifies the lifestyle groups and describes their value profiles. Part two contains the hypotheses test results. Part three contains the results of some further analysis, undertaken to explore the relationship of the separate value scales to recreation behavior. Throughout this chapter, the values are abbreviated. The key for these abbreviations is presented in Table 4.

Table 4. Key to Value Abbreviations.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA - Pastoralism</td>
<td>MO - Mechanical Orientation</td>
</tr>
<tr>
<td>UR - Urbanism</td>
<td>AA - Accept Authority</td>
</tr>
<tr>
<td>SS - Stimulus Seeking</td>
<td>FA - Feeling of Anomie</td>
</tr>
</tbody>
</table>
The Lifestyle Groups

Hierarchical cluster analysis (Marshall and Romesburg 1977) was used to identify the lifestyle groups. It does not itself define the groups. Rather, it begins by combining the most similar people into groups, and continues to link groups or individuals until all people fall into one group. The output of the program is a clustering tree which must be interpreted to identify the groups. On the left of the tree each case is in its own separate group. The clustering proceeds from left to right until all cases are combined into one group on the far right. An example is presented in Figure 4.

![Clustering Tree Example](image)

Figure 4. Example of clustering tree for five cases.

The cluster tree resulting from the clustering of the 120 cases according to their standardized value profiles is presented in Appendix C. The cophenetic correlation for the tree is 0.719. This is the correlation coefficient of the actual euclidian distances between cases and the euclidian distance between cases in the tree. Sneath and Sokal (1973) suggest that coefficients greater than 0.7 are acceptable. Therefore, the cluster tree is probably a fairly good representation of the actual euclidian distances between cases.
Determination of groups from the cluster analysis is simply a matter of deciding where to break the tree. A group is defined as all cases branching to the left of any horizontal line in the tree. Thus, any number of lifestyle groups may be identified depending on where the tree is broken. Remember that lifestyle groups were not proposed as distinct entities, but as aggregations of individuals with similar value profiles. The closer to the left the clustering tree is broken, the more homogeneous the groups will be with respect to their value profiles. This decision of where to break the tree is not entirely arbitrary. Four factors to consider are:

1. Degree of within group similarity desired.
2. Degree of between group dissimilarity desired.
3. Approximate number of groups desired.
4. Number of cases within each group desired.

It is difficult to describe exactly how the groups were determined, as the four factors listed are interrelated. However, three main considerations were:

1. Approximate number of groups sought was 3-5.
2. Minimum allowable group size was 12 (10 percent of sample size).
3. Attempted to minimize between group similarity.

The cluster tree produced three groups meeting the decision criteria. A fourth group missed the minimum group limit by one case and has been included in some further analysis. The horizontal line defining the groups is circled and numbered on the cluster tree in Appendix C. Out of 120 cases, 25 did not cluster into a group. The breakdown of group sizes is presented in Table 5.
Table 5. Lifestyle group sizes.

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>39</td>
<td>32.5</td>
</tr>
<tr>
<td>Group 2</td>
<td>21</td>
<td>17.5</td>
</tr>
<tr>
<td>Group 3</td>
<td>24</td>
<td>20.0</td>
</tr>
<tr>
<td>Group 4</td>
<td>11</td>
<td>9.2</td>
</tr>
<tr>
<td>Not Grouped</td>
<td>25</td>
<td>20.8</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The groups were defined by their values profiles; there are several ways to illustrate their characteristics. The rank order of the values for each group is presented in Table 6. The relative positions of the value means within each group are illustrated in Figure 5. Finally, a comparison of group means and standard deviations for each value is presented in Figure 6.

Table 6. Rank order of values within groups.

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>6</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>5 *</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

*Mean of MO = mean of FA

To determine if the values do differentiate between the lifestyle groups, a series of oneway analysis of variance tests were run. The dependent variables were the value scores and lifestyle group was the
<table>
<thead>
<tr>
<th>Group Value Mean</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 +</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>MO</td>
</tr>
<tr>
<td>1.0 +</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>MO</td>
</tr>
<tr>
<td></td>
<td>I</td>
<td>I</td>
<td>AA</td>
<td>AA</td>
</tr>
<tr>
<td></td>
<td>I</td>
<td>I</td>
<td>MO,FA</td>
<td>AA, FA</td>
</tr>
<tr>
<td>0.5 +</td>
<td>VP</td>
<td>I</td>
<td>I</td>
<td>MO, FA</td>
</tr>
<tr>
<td></td>
<td>FA</td>
<td>I</td>
<td>I</td>
<td>AA</td>
</tr>
<tr>
<td>0.0 +</td>
<td>AA</td>
<td>I</td>
<td>I</td>
<td>AA</td>
</tr>
<tr>
<td></td>
<td>PA</td>
<td>I</td>
<td>I</td>
<td>PA</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>I</td>
<td>I</td>
<td>SS</td>
</tr>
<tr>
<td>-0.5 +</td>
<td>SS</td>
<td>I</td>
<td>I</td>
<td>SS</td>
</tr>
<tr>
<td></td>
<td>VP</td>
<td>I</td>
<td>I</td>
<td>FA</td>
</tr>
<tr>
<td>-1.0 +</td>
<td>VP</td>
<td>I</td>
<td>I</td>
<td>FA</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>I</td>
<td>I</td>
<td>SS</td>
</tr>
<tr>
<td></td>
<td>UR</td>
<td>I</td>
<td>I</td>
<td>UR</td>
</tr>
<tr>
<td>-1.5 +</td>
<td>UR</td>
<td>I</td>
<td>I</td>
<td>UR</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>I</td>
<td>MO</td>
</tr>
<tr>
<td>-2.0 +</td>
<td>UR</td>
<td>I</td>
<td>I</td>
<td>MO</td>
</tr>
</tbody>
</table>

Figure 5. Value means by lifestyle group.
Figure 6. Group value means and standard deviations.
independent variable. Two sets of these tests were conducted; one with all four lifestyle groups, and one the three lifestyle groups meeting the minimum size criteria. For each value, the relationship between lifestyle group and value score was significant ($p \leq 0.05$). Eta squared ($E^2$), which indicates the proportion of value score variance explained by lifestyle group, ranged from 0.173 to 0.773. The results of the analysis of variance tests are summarized in Table 7. A t-test between group means for each value was also conducted. The results of these tests are presented in Figure 7.

The test comparing the lifestyle group values indicate that the groups do have different value profiles. These distinctive profiles are best illustrated in Figures 5 and 6. In comparing profiles, the most noticeable characteristic of each is:

- **Group 1**: Extremely low "urbanism" value, relative to other values
- **Group 2**: Relatively low "privacy" value
- **Group 3**: Relatively high "mechanical orientation" value
- **Group 4**: Low "mechanical orientation" value

**Hypotheses Test Results**

**Hypothesis I**: Within a given recreation environment, persons with different lifestyle sets will differ significantly in the relative importance of experience expectations for a recreation engagement.

The test for this hypothesis was a series of one-way analysis of variance tests with lifestyle group as the independent variable and experience expectations as the dependent variables. Again, two sets of these tests were conducted; one with groups 1-4, and one with groups 1-3. The three significant relationships ($p \leq 0.05$) are
Table 7. Significant relationships between lifestyle group and values (p ≤ 0.05).

<table>
<thead>
<tr>
<th>Groups 1-4</th>
<th>E²</th>
<th>F Ratio</th>
<th>N</th>
<th>Groups 1-3</th>
<th>E²</th>
<th>F Ratio</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>.173</td>
<td>6.351</td>
<td>95</td>
<td>.117</td>
<td>5.376</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>UR</td>
<td>.411</td>
<td>21.133</td>
<td>95</td>
<td>.401</td>
<td>27.161</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>.306</td>
<td>13.370</td>
<td>95</td>
<td>.338</td>
<td>20.633</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>VP</td>
<td>.530</td>
<td>34.270</td>
<td>95</td>
<td>.538</td>
<td>47.216</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>MO</td>
<td>.733</td>
<td>103.201</td>
<td>95</td>
<td>.377</td>
<td>24.558</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>AA</td>
<td>.268</td>
<td>11.131</td>
<td>95</td>
<td>.339</td>
<td>20.812</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>FA</td>
<td>.419</td>
<td>21.833</td>
<td>95</td>
<td>.440</td>
<td>31.790</td>
<td>84</td>
<td></td>
</tr>
</tbody>
</table>

Figure 7. Least significant difference test for values. Numbers denote groups, (*) means significantly different (p ≤ 0.05).
presented in Table 8. When the relationship was significant, a
t-test between group means was conducted. The results of the t-tests
are presented in Figure 8. The group means and standard deviations
for the three significant experience expectations are presented in
Table 9.

These results indicate that Hypothesis I should be rejected.
At first it appeared that the hypothesis may have had some validity;
three out of 16 (19 percent) possible relationships between experience
expectation and lifestyle group were significant ($p < 0.05$). However,
when testing groups 1-3, it became apparent that group four alone was
creating two of the three significant relationships. The results of
the t-tests reinforce this rejection of the model. They show clearly
that, even when an analysis of variance test indicates a relationship
($p < 0.05$) between a particular experience expectation and lifestyle
group, people with different lifestyle sets do not usually differ
significantly in the relative importance of the experience expectations.

**Hypothesis II:** Within a given environment, persons with
different lifestyle sets will differ significantly in their
activities participated in.

The test for this hypothesis was a chi square of lifestyle group
by activity type. Due to the small sample size, group four was not
included. Also, activity type had to be collapsed into broader
categories. Responses of "camping," "relaxing," or "horseshoes,"
were combined to make a passive, site-oriented category. Responses
of "fishing" or "hunting" were combined to make an active/extractive
off-site category. These were the two categories of activities used
in the chi square test. The 3 by 2 cross-tabulation is presented in
Table 8. Significant relationships between lifestyle group and experience expectations (p ≤ 0.05).

<table>
<thead>
<tr>
<th></th>
<th>Groups 1-4</th>
<th></th>
<th>Groups 1-3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$E^2$</td>
<td>F Ratio</td>
<td>N</td>
<td>$E^2$</td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Togetherness</td>
<td>.09</td>
<td>2.769</td>
<td>86</td>
<td>--</td>
</tr>
<tr>
<td>Learn About</td>
<td>.09</td>
<td>2.671</td>
<td>87</td>
<td>--</td>
</tr>
<tr>
<td>Nature</td>
<td>.10</td>
<td>3.076</td>
<td>86</td>
<td>.11</td>
</tr>
</tbody>
</table>

Figure 8. Least significant difference test for experience expectations. Numbers denote groups, (*) means significantly different (p < 0.05).

Table 9. Group means and standard deviations for significant experience

<table>
<thead>
<tr>
<th>Lifestyle Group</th>
<th>FT Mean</th>
<th>St. Dev.</th>
<th>LN Mean</th>
<th>St. Dev.</th>
<th>PR Mean</th>
<th>St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-0.73</td>
<td>.750</td>
<td>-0.15</td>
<td>.631</td>
<td>-0.92</td>
<td>.484</td>
</tr>
<tr>
<td>2</td>
<td>-1.04</td>
<td>.402</td>
<td>0.00</td>
<td>.809</td>
<td>-0.36</td>
<td>.935</td>
</tr>
<tr>
<td>3</td>
<td>-0.75</td>
<td>.797</td>
<td>-0.04</td>
<td>.589</td>
<td>-0.61</td>
<td>.701</td>
</tr>
<tr>
<td>4</td>
<td>-0.25</td>
<td>.975</td>
<td>-0.65</td>
<td>.556</td>
<td>-0.79</td>
<td>.513</td>
</tr>
</tbody>
</table>
Table 10. Lifestyle group by activity type.

<table>
<thead>
<tr>
<th>Lifestyle Group</th>
<th>Site-oriented</th>
<th>Off-site oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Observed</td>
<td>Expected</td>
</tr>
<tr>
<td>1</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 10. The chi square value was 1.862, N = 57, and p = 0.39. Crampers V for the test was .181. Persons with different lifestyle sets do not differ significantly in their activities participated in. Thus, Hypothesis II is rejected.

Hypothesis III: Within the same activities persons with different lifestyle sets will differ significantly in experience expectations.

The test of this hypothesis was a series of analysis of variance tests with experience expectations the dependent variables and lifestyle group the independent variable, controlling for activity type. The activity types were the same as those used to test Hypothesis II. Group four was not included in these tests. The additive effects of lifestyle group and activity type were significant (p < 0.05) for two of the 16 experience expectations (13 percent). These results are shown in Table 11. The unadjusted $E^2$ indicates the percent of variance in experience expectations explained without controlling for activity type; the multiple $R^2$ indicates the percent of variance explained when controlling for activity type. As indicated by the results, controlling for activity type has little effect on the
Table 11. Significant relationships between lifestyle group and experience expectations when controlling for activity type (p ≤ 0.05).

<table>
<thead>
<tr>
<th>Experience Expectation</th>
<th>Unadjusted $E^2$</th>
<th>Multiple $R^2$</th>
<th>F Ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lifestyle*</td>
</tr>
<tr>
<td>Similar People</td>
<td>.14</td>
<td>.16</td>
<td>4.107</td>
</tr>
<tr>
<td>Privacy</td>
<td>.18</td>
<td>.19</td>
<td>5.158</td>
</tr>
</tbody>
</table>

* For SS due to lifestyle group, adjusted for activity type
** For SS due to lifestyle group and activity type.

explanation of variance in experience expectations. Thus, Hypothesis III is rejected.

Hypothesis IV: Recreation group will act as an intervening variable in the above relationships (Hypothesis I-III).

The test for this hypothesis was a series of analysis of variance tests with experience expectations the dependent variables and lifestyle group the independent variable, controlling for recreation group. Group four was not included in these tests. The recreation group categories were combined to increase cell frequencies of the nominal variables. One category was the original category of mixed age and sex. The other category used was all the others combined. The resulting two categories were families and not families. The only significant relationship (p ≤ 0.05) is shown in Table 12. Controlling for recreation group did not change the variance explained. Therefore, the hypothesis is rejected.

Another significant relationship (p ≤ 0.05) was found during
Table 12. Significant relationship between lifestyle group and experience expectations when controlling for recreation group (p ≤ 0.05).

<table>
<thead>
<tr>
<th>Experience Expectation</th>
<th>Unadjusted $E^2$</th>
<th>Multiple $R^2$</th>
<th>F Ratios</th>
<th>Lifestyle*</th>
<th>Additive**</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privacy</td>
<td>.12</td>
<td>.12</td>
<td>4.337</td>
<td>2.996</td>
<td>73</td>
<td></td>
</tr>
</tbody>
</table>

*For SS due to lifestyle group, adjusted for recreation group
**For SS due to lifestyle group and recreation group

these tests, although it was not related to the hypothesis. This was the relationship between the "family togetherness" experience expectation and recreation group. The unadjusted $E^2$ for recreation group was 0.17 with N equal to 73. This suggests appropriate grouping, as such a relationship would be expected.

Hypothesis V: Intensity of involvement will act as an intervening variable in the above relationships (Hypotheses I through III).

The test for this hypothesis was a series of analysis of variance tests with experience expectations the dependent variables and lifestyle group the independent variable, controlling for intensity of involvement. Group four was not included in these tests. Two categories were used for "intensity of involvement." One category was a response of "very important" to the intensity of involvement question. The second category was made up of all other responses.

None of the relationships were significant (p ≤ 0.05) for the additive effect of lifestyle group and intensity of involvement. However, the previously established relationship between lifestyle group and privacy remained significant (p ≤ 0.05) when controlling
for intensity of involvement. This hypothesis is rejected, as there were no significant relationships for the additive effects model.

**Hypothesis VI:** Use history will act as an intervening variable in the above relationships (Hypotheses I through III).

The test of this hypothesis was a series of analysis of variance tests with experience expectations the dependent variables and lifestyle group the independent variable, controlling for use history. Group four was not included in these tests. The use history categories were 1-3 years, 4-9 years, and 10+ years. The only significant relationship \((p < 0.05)\) is reported in Table 13. The increase in explained variance is slight. Therefore, this hypothesis is rejected.

<table>
<thead>
<tr>
<th>Experience Expectation</th>
<th>Unadjusted (E^2)</th>
<th>Multiple (R^2)</th>
<th>F Ratios Lifestyle*</th>
<th>Additive**</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privacy</td>
<td>.11</td>
<td>.15</td>
<td>4.677</td>
<td>2.911</td>
<td>74</td>
</tr>
</tbody>
</table>

*For SS due to lifestyle group, adjusted for use history
**For SS due to lifestyle group and use history

Further Analysis

In order to aid interpretation of the results, some further analysis was undertaken. This was aimed at examining the relationship between the values themselves, and the recreation behavior variables. This was done in three parts.
First, a correlation matrix of the seven value scales with the thirteen experience expectations was computed. The intent was to see if a linear relationship existed between any of the singular values and the experience expectations. A two-tailed test for significance of the correlation coefficients was conducted, and the significant correlations ($p \leq 0.05$) are reported in Table 14. Most of these were predictable; "pastoralism" was positively correlated with "learn about nature"; "urbanism" was positively correlated with "being with similar people/social contact" and "meeting new people" and negatively correlated with "privacy"; "stimulus seeking" was positively correlated with "teaching/sharing skills" and negatively correlated with "open space"; "value privacy" positively correlated with "learn about nature" and "privacy" and negatively correlated with "being with similar people/social contact" and "meeting new people"; "mechanical orientation" was negatively correlated with "learn about nature" and "feeling of anomie" was positively correlated with "family togetherness." The value scale "accept authority" had no significant correlations. N ranged from 107 to 109.

Table 14. Significant correlations ($p \leq 0.05$) between values and experience expectations.

<table>
<thead>
<tr>
<th>Share Skills</th>
<th>Family Together</th>
<th>Similar People</th>
<th>Meet People</th>
<th>Study Nature</th>
<th>Open Space</th>
<th>Privacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.224</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>UR</td>
<td>-</td>
<td>-</td>
<td>.302</td>
<td>.233</td>
<td>-</td>
<td>-.201</td>
</tr>
<tr>
<td>SS</td>
<td>.189</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-.284</td>
</tr>
<tr>
<td>VP</td>
<td>-</td>
<td>-</td>
<td>-.303</td>
<td>-.394</td>
<td>.197</td>
<td>-</td>
</tr>
<tr>
<td>MO</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-.245</td>
<td>-</td>
<td>.431</td>
</tr>
<tr>
<td>AA</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FA</td>
<td></td>
<td>.215</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Second, the relationship between the privacy value scale and the privacy experience expectation was examined further as this relationship had the highest correlation coefficient. The simple linear regression between the two scales was computed. The values are plotted in Figure 9. $R^2$ for the regression equation was 0.19. As can be seen, the relationship is not linear. This will be discussed further in the next chapter.

The final further analysis was to compute the chi squares for a series of 2 by 2 cross-tabulations of value score by activity type. For these tests, the value scores were converted to high/low dichotomous variables. High was any score greater than .05 above the sample mean and low was any score less than .05 below the sample mean. The activity types were the same as those used to test hypothesis 2 and 3. There were no significant results for these tests ($p \leq 0.05$).
Figure 9. Plot of privacy value by privacy experience expectation.
CHAPTER VI
DISCUSSION AND CONCLUSIONS

Introduction

This chapter will summarize and discuss the findings; draw some conclusions regarding the usefulness of the proposed lifestyle model, and lifestyle in general in outdoor recreation research; and make recommendations for further study.

Summary of Findings

The results of this study are inconclusive with respect to applications of lifestyle to outdoor recreation behavior. The attempt to identify groups of people, according to their value profiles, was successful. Four such lifestyle groups were identified by the cluster analysis. However, the subsequent hypotheses that were drawn from the model of lifestyle in outdoor recreation were rejected. Breaking the sample into the four (sometimes three) lifestyle groups did not help explain recreation behavior as it was operationalized in the model. Very few significant relationships between lifestyle group and recreation behavior were found, and controlling for proposed intervening variables did not improve these relationships. Therefore, the proposed model was not supported by the findings.
Discussion

The Lifestyle Groups

When discussing the lifestyle groups, one must remember that they are not intended to be discrete entities. This was pointed out in the section of the literature review on theory of lifestyle. Instead, one must visualize a dispersion of "lifestyle sets" (individual value profiles) as points in seven-dimensional hyperspace. Most likely, no two points coincide. However, concentrations of points in this hyperspace are expected, due to the proposed social processes behind lifestyle. These concentrations of points form the basis of the lifestyle groups.

It is not possible to visualize or graph this seven-dimensional dispersion of points ourselves. Cluster analysis accomplishes this task. Through its hierarchical grouping, cluster analysis identifies concentrations of value profiles within the entire cloud of points. These are the clusters representing the lifestyle groups. Points farthest from such clusters are not added until the end of the analysis. These are the individuals that are not assigned to a lifestyle group. The 25 unclustered cases (16 percent of the sample) are reasonable given the limited sample population. There were not enough cases similar to these to form the basis of a group.

As there are no statistics reported by the cluster analysis to indicate how discriminate the four lifestyle groups are, further analysis had to be conducted. It was necessary to see if the groups did have different value profiles. When the three major groups were compared on their mean value scores, the results were very successful.
Out of 21 paired tests (three for each value), 17 (81 percent) significant relationships ($p \leq 0.05$) were found. The results of these tests strongly support the results of the cluster analysis.

**Testing the Model**

Statistically, the results of the cluster analysis are supported. However, two questions concerning the predictive validity of the lifestyle groups must be raised. The first is: What is the meaning of the group's value means differing significantly? For example, groups two and three do differ significantly on the "urbanism" value dimension (Figure 6). The difference between their means is approximately 0.3 and they have similar standard deviations (Figure 5). However, it is impossible to determine the magnitude of that 0.3 difference. Even if the standardized score could be converted back to a raw six point scale value, this would hold true. What is the magnitude of a difference of one on such a scale?

The second question is related to the first. Assuming the magnitude of the difference could be determined important, what is the meaning of two groups differing significantly on a particular value dimension? The value dimensions were proposed prior to the analysis, and they did discriminate between groups of people. However, this does not mean the value dimensions are relevant to recreation behavior.

In order to answer these questions, a model of lifestyle in outdoor recreation was developed, and hypotheses were proposed. These test the predictive validity of "lifestyle set." Testing these hypotheses resulted in so few significant relationships ($p \leq 0.05$)
that it is not worthwhile discussing them. Just as many relationships would have been expected by chance. The model is not at all supported.

The simple explanation for the model's lack of support is that "lifestyle set" does not function as hypothesized. The seven combined value dimensions do not predict outdoor recreation behavior; therefore "lifestyle set" is of little use in understanding outdoor recreation behavior. However, before drawing such a conclusion, the results should be examined more carefully. There are several other explanations as to why the model was not supported.

The first of these alternative explanations is that dispersed road recreationists are too similar for the model to function. In other words, the statistically significant differences between value profiles were not large enough to produce noticeable differences in behavior. Perhaps, with a more diverse group of subjects, more diverse lifestyle groups would be identified. This greater diversity might have noticeable differences in outdoor recreation behavior. If this is the case, lifestyle set operates at a broader level of behavior than this study focused on.

A second alternative explanation of why the model was not supported is that the variables were poorly operationalized. This is not easily determined for most of the variables, but their operationalizations are intuitively meaningful. The results of testing Hypothesis IV do indicate that recreation group is functioning as proposed. However, this is just for the "family" versus "not family" distinction. The original operationalization had four...
categories, but these were lost in the analysis due to the small sample size. This problem affected all categorical variables. The proposed categories of variables in the model were not the same as the actual categories used in the analysis. In this respect, the variables in the model may have been poorly operationalized.

Another explanation for lack of support for the lifestyle model is that the wrong recreation behavior measures were chosen. That is, lifestyle set does not relate to "primary activities" or "experience expectations," but may relate to some other recreation behavior. The operationalization of recreation behavior as "primary activity" has already been questioned in the literature review. Perhaps frequency of participation and/or secondary activities should also have been considered. As for the experience expectations, a considerable amount of testing has been done to ensure their reliability (Driver 1977), but this does not mean they are valid operationalizations of recreation behavior. Perhaps lifestyle groups pursue a given experience expectation in different manners. Another interpretation of experience expectations is as profiles, or "packages" of expectations rather than the single experience expectations. There are a number of other possible operationalizations of outdoor recreation behavior, and it is difficult to know which are likely to relate to lifestyle.

The Values Themselves

In order to look more closely at the operationalization of "lifestyle set," the values themselves were subjected to analysis. Hypothesis I was retested using individual value dimensions rather
than lifestyle groups. Eleven percent of the simple correlation coefficients computed were significant \( p < 0.05 \). Although this is not a very high percentage, it is more than would be expected by chance. Looking at specific values, 25 percent of the 16 experience expectation correlations with "value privacy," and 19 percent with "urbanism," were significant \( p < 0.05 \). On the other hand, when lifestyle groups 1-3 were used to test Hypothesis I, only one of the 16 (6 percent) tests was significant \( p < 0.05 \). Therefore, as opposed to the results obtained with lifestyle groups, there does seem to be a relationship between some of the values and some of the experience expectations. The lifestyle groups appear to be covering up relationships rather than uncovering them. Value dimensions that have little, or no relationship to the experience expectations (such as "accept authority") are masking the effects of the more important values in operationalizing the lifestyle groups.

It seems as though experience expectations are better understood by looking at their relationships with select values, rather than with lifestyle groups. To examine this possibility, the relationship between the privacy value and the privacy experience expectation was explored further. The scatter plot (Figure 9) indicates their relationship. A close linear relationship might be expected, but this is not the case. "High privacy value people" also have high privacy experience expectations, but "low privacy value people" are variable in privacy experience expectations. There appear to be intervening variables that may increase the amount of privacy desired at recreation areas, but none to decrease it. In other words, the privacy value acts as a low bound constraint on the privacy.
experience expectation. An interpretation of this is that an individual with a high privacy value is constrained much more than a person with a low privacy value. Therefore, a person with a high privacy value is more likely to carry this value into many facets of life (e.g. recreation).

To look at the relationship between the values and activity groups, Hypothesis II was retested with the individual value dimensions substituted for the lifestyle groups. In this case, no significant relationships were found. So, the activity groups were not consistent with respect to the individual value dimensions. This supports the idea that activity groups are composed of various subgroups. Therefore, "activity style" may be a better interpretation of outdoor recreation behavior than "primary activity" for use with lifestyle set. Of course, the aggregating of activities into broader typologies affected these results.

Conclusions and Recommendations

Given the exploratory nature of this study, the first objective has been achieved. An operationalized concept of lifestyle which is grounded in theory has been developed, and the identification of "lifestyle groups" based on this concept was successful. As indicated, this does not mean that they really are lifestyle groups.

Unfortunately, applying this operationalized concept of lifestyle in a model which uses lifestyle as an outdoor recreation characteristic influencing recreation behavior, was unsuccessful. Several possible interpretations of this have been presented. Based upon these, there are a number of recommendations for improvement upon
this study:

1. Regardless of any other change, increase the sample size.

2. Change the operationalization of recreation behavior, and/or focus on a greater diversity of recreationists.

3. Reconsider the value dimensions used in defining "lifestyle set." Perhaps other dimensions should be added, or some dropped. Based on this study, "feeling anomie," "accept authority," "mechanical orientation," and "pastoralism" could be dropped, if the same experience expectations were used as the behavior variables.

4. Improve operationalization of the intervening variables.

5. As an alternative to values, experience expectations could be used as dimensions defining "lifestyle set" when dealing with a limited recreation group like dispersed road recreationists. In this case, another operationalization of recreation behavior would be necessary.

Perhaps this study relied too heavily on the ability to generalize. It has been pointed out that some of the individual values seem to have more relationships with experience expectations than the generalized lifestyle groups do. This is because the cluster analysis assumed equal effects of each value dimension in determining the groups. A sixth recommendation proposes an alternative to the "lifestyle group" approach.

6. Rather than pursue lifestyle groups through cluster analysis, make use of individual value dimensions or combinations of two or three of these. To do this, fairly specific recreation behaviors would have to be targeted. Of the 16 experience expectations
used here, each needs its own set of independent variables. Other relevant outdoor recreation behavioral measures could be used such as types of depreciative behavior, spatial use of a recreation area, or time of use. Again, the problem arises of which independent variables are relevant to a given operationalization of recreation behavior.
LITERATURE CITED


Appendix A

Questions from the USU Dispersed Recreation Survey
4. What activities are you participating in while in this area? (list all activities mentioned)

5. Which activity do you consider the primary activity (i.e., most time spent, most enjoyable, most important or main reason for coming here)?

6. Study area specific use patterns: Activities and how much, where, percent of time spent in each activity:

11. We are concerned with future Forest Service management of the area and would like to know if you would be willing to cooperate with a possible follow-up study.  
   Yes ___  Could we please have your name and address:

   ___________________________________________
   ___________________________________________
   ___________________________________________
   ___________________________________________
   __________________________ Zip _______
Questions from the Self-Administered Questionnaire

2. How many years have you been coming to this dispersed road recreation area? ______ years.

11. People have many reasons for coming here to recreate. Listed below are some possible reasons. For each of the following items, please circle the number that best describes how important it is to you (for this trip) with (1) meaning extremely important and (6) meaning not at all important.

(8) 1. To enjoy the scenery
(7) 2. It would be a chance to meet new people
(2) 3. To feel my independence
(4) 4. To share my skill and knowledge with others
(15) 5. For the solitude
(16) 6. To be without the rest of the family for a while
(11) 7. So I could do something creative such as sketch, paint, take photographs, or so on
(3) 9. For a chance to have control over things
(5) 9. So the family could do something together
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Extremely Important</th>
<th>Very Important</th>
<th>Moderately Important</th>
<th>Somewhat Important</th>
<th>Slightly Important</th>
<th>Not at All Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Because of the open space here</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>To help release my cluttered-up feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>12</td>
<td>To develop my skills and ability</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>To think about my personal values</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>14</td>
<td>To study nature</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>15</td>
<td>To be with others who enjoy the same things I do</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>16</td>
<td>For a change from everyday life</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>17</td>
<td>So I would be in control of things that happen</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>18</td>
<td>To talk to new and varied people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>19</td>
<td>For the chance to think about who I am</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>20</td>
<td>To be creative</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>21</td>
<td>To help release or reduce some built up tensions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>22</td>
<td>For a chance to be on my own</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>23</td>
<td>To share what I have learned with others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>24</td>
<td>Because there is more elbow room here</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>25</td>
<td>Change from my daily routine</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>26</td>
<td>To help bring my family together more</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>27</td>
<td>To take in the scenic beauty</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>28</td>
<td>So I could become better (at 'it)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>29</td>
<td>To get away from other people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>30</td>
<td>To learn more about nature</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>31</td>
<td>To be with people having similar values</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>32</td>
<td>To be away from the family for a while</td>
<td>1</td>
<td>2</td>
<td>3</td>
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Appendix B

Mail Survey: Cover Letter, Questionnaire

First Follow-up, Second Follow-up
Hello Again:

Last summer we contacted you and are grateful for the cooperation we received. As you may remember, we have been asked to help gather information needed for improving the management of outdoor recreation areas.

To make this study more useful, we need your further assistance. Last summer you indicated that you would be willing to participate in this final stage of the study. We would greatly appreciate your cooperation by taking 15-20 minutes to complete the enclosed questionnaire. The information we gather from you and other recreationists will be collectively tallied for research purposes only. As an individual, you will not be associated with your answers to any questions.

For scientific reasons, it is critical that you complete and return the enclosed questionnaire as soon as possible. Please answer all questions.

Thank you for your time and assistance.

Sincerely,

Kent Downing
Associate Professor

Richard Schreyer
Assistant Professor

John Butler
Research Assistant

Enclosure
Recreationist's Lifestyle Survey

Part J - Values, Beliefs and Sentiments

The first thing we would like to find out is the extent to which you agree or disagree with several general values, beliefs or sentiments found in our society.

Please read the statements and then circle the response which best represents your immediate reaction to the opinion expressed. For example, if you strongly agree, circle +++.

(1) 1. A person has the right to modify the environment to suit his needs.  
(2) 2. I prefer to live in an area where neighbors keep to themselves.  
(3) 3. I like the variety of stimulation one finds in the city.  
(4) 4. I have always been somewhat of a daredevil.  
(5) 5. With everything so uncertain these days, it almost seems as though anything could happen.  
(6) 6. I enjoy working with power tools.  
(7) 7. I am in favor of a very strict enforcement of all laws.  
(8) 8. I like to be by myself much of the time.  
(9) 9. Cities are too noisy and crowded for me.  
(10) 10. The trouble with the world today is that most people really don't believe in anything.  
(11) 11. I don't like to be tied down to any one place.  
(12) 12. You have to respect authority and when you stop respecting authority, your situation isn't worth much.  
(13) 13. I would enjoy living the rest of my life in a large city.  
(15) 15. With everything in such a state of disorder, it's hard for a person to know where he stands from one day to the next.  
(16) 16. Building projects which disrupt the ecology should be abandoned and the land returned to its natural state.  
(17) 17. I need more variety in my life than many people seem to need.  
(18) 18. I usually enjoy having lots of people around.  
(19) 19. Natural resources must be preserved, even if people must do without.  
(20) 20. It seems to me that other people find it easier to decide what is right than I do.  
(21) 21. I am an adventurous person.  
(22) 22. Disobedience to the government is never justified.  
(23) 23. When it comes to fixing things I am hopeless.  
(24) 24. The cities contain the best aspects of modern life.
Part II - How People Get Enjoyment Out of Their Life

In this section of the questionnaire we are interested in discovering the various ways in which people find enjoyment. We realize recreation is one way, but there are also a number of other possibilities.

2. Please list 6 parts of your life that you find most rewarding or meaningful in some way. These may include certain parts of your job, family life, social relationships, hobbies or other leisure pasttimes, etc. Try to be specific. That is, do not write down "my job," but state what specific aspects of your job you find rewarding or meaningful. Some examples are: "The travel required by my job," "the exhilaration and freedom of sky diving," "collecting antiques," "companionship with wife."

2. Please list 6 parts of your life that you find most rewarding or meaningful in some way. These may include certain parts of your job, family life, social relationships, hobbies or other leisure pasttimes, etc. Try to be specific. That is, do not write down "my job," but state what specific aspects of your job you find rewarding or meaningful. Some examples are: "The travel required by my job," "the exhilaration and freedom of sky diving," "collecting antiques," "companionship with wife."

Now, group them according to their importance by placing a (1) next to the three most important and a (2) next to the other three.

Part III - Where Outdoor Recreation Fits Into Peoples' Lives

In this section of the questionnaire we are interested in looking at how outdoor recreation fits into peoples' lives. We are primarily concerned with the type of outdoor recreation you were taking part in last summer, when we interviewed you.

4. Recall the trip last summer when you were interviewed:
   a. What were the most enjoyable parts of that trip?
   b. What were the least enjoyable?

5. How many other places do you go regularly for this type of outdoor recreation?

6. How many times a year do you take part in this type of outdoor recreation?

7. How important is this type of outdoor recreation to you? Refer to Part II of this questionnaire and circle the answer which fits best:
   1. Very Important, similar to the top three things listed in Part II.
   2. Fairly Important, similar to the other three things listed in Part II.
   3. Important, but not at the level of the things listed in Part II.
   4. Slightly Important
   5. Not Very Important
   6. Not At All Important, wouldn't mind it at all if I had to give it up

8. Are there other types of outdoor recreation that you feel are important?

   (1) Yes – If yes, what is the type of outdoor recreation you consider the most important?
   (2) No

   How important is this type of outdoor recreation to you?
   1. Very Important, similar to the top three ...
   2. Fairly Important, similar to the other three ...
   3. Important, but not at the level ...
   4. Slightly Important
   5. Not Very Important
   6. Not At All Important, wouldn't mind giving it up

9. How important is recreation in general to you?

   1. Very Important, similar to the top three ...
   2. Fairly Important, similar to the other three ...
   3. Important, but not at the level ...
   4. Slightly Important
   5. Not Very Important
   6. Not At All Important, wouldn't mind giving it up
Part IV - Miscellaneous Information

There are a few more facts we are interested in finding out, that relate to you as an individual.

10. When were you born (year)? 19_____

11. Sex: (circle)
   1. male
   2. female

12. What is the highest level of education you have completed so far? (circle)

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<tr>
<th>High school</th>
<th>College</th>
<th>Graduate</th>
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<tr>
<td>less than 6</td>
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13. What is your occupation? Please state what kind of work you do, not for whom you work:

14. What is the length of your yearly vacation (excluding weekends)? (circle)

   1. less than 1 week
   2. about 1 week
   3. about 2 weeks
   4. about 3 weeks
   5. 4 or more weeks

15. Are there any comments you would like to make with regard to the management of our dispersed outdoor recreation areas (such as Monte Cristo, the Greys River, and the north slope of the Uintas)?
Hello:

Last week a questionnaire on your recreation lifestyle was mailed to you. This was because you were part of a sample of recreationists we contacted last summer.

If you have already completed and returned it to us, please accept our sincere thanks. If not, please do so today. Because we are working with a small sample, it is extremely important that your questionnaire is included in the study.

If by some chance you did not receive the questionnaire, or it got misplaced, please call me collect (801-750-2456) and I will get another one in the mail to you today.

Sincerely,

John R. Butler
Research Assistant
Forestry & O.R. UMC 52
Utah State University
Logan, Utah 84322
About three weeks ago we sent you a questionnaire seeking information relating to your recreation lifestyle. As of today we have not yet received your completed questionnaire. In the event that your questionnaire has been misplaced, a replacement has been enclosed.

It is our hope that you will take the 15-20 minutes necessary to fill out the questionnaire. This is necessary if we are to get a representative sample. We hope to use this information for understanding the differences among recreationists and why conflict exists in outdoor recreation areas.

Sincerely,

John R. Butler
Research Assistant
Forestry & O.R. UMC 52
Utah State University
Logan, Utah 84322
Appendix C

Cluster Tree