Backcountry Adventure as Spiritual Experience: A Means-End Study

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DEDICATION

This work is dedicated to my family and to all who share the backcountry as their church. My family has encouraged me to be active in the outdoors from a young age. They have also supported my spirit in the adventure that is my life. This dedication also goes to those who share a love for the backcountry and find it to be a spiritual place. This place is the church of the great outdoors, where they go to feel at one with themselves, with others, with nature, and with that something greater, often termed the energy of the universe. The adventures in this place provide fulfillment and peace. May your adventures be fulfilling, your bonds strong, and your life well touched by the sense of euphoria and awe that you find there. Thank you for being on your journey. The role you play in the lives of others may be larger than you know.

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spiritual meaning with me was a profound honor and privilege. To willingly share these

stories with a stranger, on a mountain pass, reflects the humanistic insights that these

findings hold.

ABSTRACT

The purpose of this study was twofold. First, to establish an understanding of what is meant when someone describes a backcountry adventure as spiritual. The second purpose of this study was to better understand the relationships between the attributes, consequences, and values (ACV) of the spiritual aspects of a backcountry adventure.

Interviews were conducted with 63 backcountry users in the region of Teton Pass, Wyoming. Data analysis consisted of two main stages. First, informant statements were coded for content analysis. A total of 23 content categories were generated: six attributes, nine consequences and eight values. These concepts compose the spiritual experience of backcountry adventures expressed in the data. Inter-rater reliability was calculated at 99.22%.

For stage two, implication matrices were generated for the frequency of association between the ACV concepts represented in each hierarchical value map (HVM). An analysis of informant subgroups was conducted based on gender, age, years of backcountry experience, type of activity leading to spiritual experience, and level of skill associated with that activity. A total of 18 HVMs were generated for analysis, two for the overall data and one for each of the 16 subgroups examined for the purposes of identifying possible differences. These HVM were interpreted visually and numerically based on frequency and strength of ACV associations.

The eight values identified represent a construct of spirituality; most frequently expressed were a transcendent experience (63%), increased awareness (46%), connection to others (43%), and a sense of fulfillment (29%). The major consequences were focus (38%), reflection (30%), tranquility (32%) and an appreciation of beauty (32%). The

more prevalent attributes were the natural backcountry setting (95%) and the adventure (35%). The attribute of a social interaction (29%) was identified as important for the benefit of sharing an experience (27%) and the resulting value of improved sense of connection to others. Mental and physical exercise (35%), resulting in the benefits of enhanced sense of wellbeing (22%), were also recognized as contributing to the spiritual meaning. The backcountry provided the benefit of enjoyment (25%). Other ACV concepts and ACV associations that contribute to spiritual meaning were identified.

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Chapter 1

INTRODUCTION

With crystal clear blue skies, the temperature hovering just above 20 degrees Fahrenheit, and knee-deep powder snow, this day was just another beautiful day in paradise. It was a typical day at work for me as a backcountry powder-skiing guide, leading a group of skiers down from the top of the mountain through glades of conifers and groves of aspens blanketed with untracked powder. The snow, sparkling like diamonds in the sun, had moisture content of under 10 percent. This snow is very light and is known as champagne powder. In other words, the snow did not stick together, yet had enough body to provide some resistance while at the same time remained light enough to splash up into your face when you skied through a wind drifted pillow or more deeply loaded slope aspect.

Skiers long for days like this. The beauty of the wild, the snow quality and the fresh mountain air often combine with the camaraderie of being together in a group to create an invigorating and memorable experience. At one point our group of skiers stopped to assess the change in slope angle that lay immediately ahead. We had been enjoying a slope with a *more difficult* rating, an angle of about 25 degrees. Beyond where we stood, the slope became *most difficult*, as opposed to the even more challenging level of *extreme*. This next slope rolled to an angle of around 35 degrees, a steeper pitch that provides more challenge in the face of gravity. The pitch was open at the top with enough space to carve four turns in the deep powder snow. This space provided enough time to build up momentum before entering the grove of trees that engulfed the bottom half of

the steep pitch. The trees were spaced close together and the rhythm of the turns would shift from a graceful flowing dance in the open spaces to a more precise foxtrot series of turns in order to avoid a collision with one of the many tree trunks. First conifers and then more closely spaced aspen trees covered the slope as the ground leveled off before our next rendezvous.

I first explained to the group what lay ahead in terms of terrain and potential hazards and then used my ski poles to start-off over the edge. The aspect was perhaps an entire foot deeper than what we had just skied. With snow to my waist, the momentum of my body pushed snow over the top of my head on every turn. The trees would soon be tightly spaced around me. Time had stopped and every move was both effortless and precise. Any feeling of snow mounding against my body was replaced with an unfamiliar sensation of snow passing through my body. A sense of peace and euphoria came over me. There was nothing but silence, snow, trees and blue sky. When the skiing was over I was left with an indescribable feeling of awe. I had been one with the snow and the mountain. I had experienced absolute focus and complete awareness of every move and sensation in which my body participated. To me, that was a spiritual experience: not something one is ready to discuss in the cacophony of shrieks, ye-haw's and whoops that resounded from the rest of the group as they came to a stop nearby. Skiing and snowboarding that slope had been a high point of the day for every member of the group.

In the over 30 years that I have been active in the out-of-doors, I have been in many different situations that have given me a similar indescribable experience. A combination of focus, clarity, sense of peace and sense of connectedness has left me with a feeling of elation and exhilaration lasting from minutes to days. I have also heard other

people describe their outdoor adventure – whether shared with me, or others, or even completed alone – as being a *spiritual* experience. When I am among these fellows of backcountry adventure and the informant of spiritual experiences comes up, there is a sense of shared knowing, looks of understanding, and even stories recalling the details of the experiences. As a scholar, I am left with the challenge of gaining a more explicit and robust understanding of the parameters of what people have meant when describing these adventure experiences as spiritual.

Statement of the Problem

What do people mean when they describe backcountry adventure experiences as being spiritual? This question represents the research problem. The primary intent of this research was to enhance our understanding of the factors that combine to create the construct of spirituality within the context of backcountry adventures. A growing body of research, from Mitchell's (1983) exploration of the mountain experience to the more recent study of transcendence in forest environments by Williams and Harvey (2001), has recognized a connection between adventure, backcountry setting, and spiritual development. In the body of studies, the various factors influencing spiritual experiences include the degree of remoteness of the natural environment (Rossman & Ulehla, 1977; Behan, Richards & Lee, 2001) as well as the influence of the backcountry setting, type of experience, and the impact of the degree of socialization (Kaplan & Kaplan, 1983; Stringer & McAvoy, 1992; Fredrickson & Anderson, 1999). Other authors have examined aspects of experience that are not termed spiritual; yet reflect the characteristics

of spiritual development. Self-actualization (Young & Crandall, 1984), self-transcendence (Beck, 1987; Williams & Harvey, 2001; Zequeira-Russell, 2002) or flow (Mitchell, 1983) experiences have been examined in the backcountry adventure context. Others have looked at more purposeful aspects of programs. These programs were intentional with a goal of facilitating spiritual development through vision quests (Riley & Hendee, 1988; Wiland, 1986). The term spiritual is not defined in any of these studies. Researchers either did not define the term, or explained that an individual would supply her or his own definition when describing an experience as being spiritual. Stringer and McAvoy's work did contribute a list of aspects that captured what the informants in that study considered reflective of a spiritual experience.

There is growing interest in the topic of spirituality across society (Godbey, 1997) and within the recreation and leisure research community, as evidenced by the expanding body of theoretical literature. Although McDonald and Schreyer (1991) recognized the potential for empirical research in this area nearly 15 years ago, a relative paucity of research has actually been completed. Thus, it seems appropriate to begin to explore the factors that may contribute to the development of an understanding of spirituality that can be used within the field of recreation and leisure studies to support research and practice.

Epistemology of the Research

The epistemology represented in this work is one of a philosophic hermeneutic. In this way of knowing the goal is to "… understand what is involved in the process of understanding" (Schwandt, 2003, p.304). "Understanding is a basic structure of our

experience of life. Meaning is mutually negotiated in the act of interpretation."
(Schwandt, 2003, p.301). This stance is relevant to the material studied for several
reasons. Initially, the hope was to discern the meaning of a term used to describe an
experience. In doing so, it was also hoped that some understanding would develop in
relation to how different elements related to experiencing an activity as spiritual are
linked and contribute to the meaning derived. Furthermore, the use of the research
method represents a phenomenological approach. First, in the method was an interview
approach that facilitated the process of exploring deeper meaning within the informant's
cognitive process (i.e. how the consequences from an experience are valued). Next, an
interpretive process was applied in order to distill the responses to essential keywords or
statements, a content category. These meaning structures were then produced graphically
with representative linkages that further add to an interpretation of the experience
(Moustakas, 1994; Schwandt, 2003). Lastly, the understanding derived was interpreted
for use in theoretical and practical applications.

Purpose of the Study

The first purpose of this study was to establish an understanding of what is meant
someone who describes a backcountry adventure as being spiritual. In achieving this
understanding it was important to identify three elements: attributes (i.e. the specific
characteristics of the activity or setting); the consequences (i.e. the benefits or costs that
result from an action); and values (i.e. highly abstract outcomes that are experienced as
desired end states). Attributes lead to consequences that, in turn, are ascribed value by the

informant. As an example, for some, a funny clown provokes laughter that is valued as happiness.

Scholars and writers have recognized the contribution of backcountry experiences to spiritual development (Driver, Dustin, Baltic, Elsner & Peterson, 1996; Fredrickson & Anderson, 1999; Hendee & Dawson, 2002; Kaplan & Kaplan, 1983; Mitchell, 1983; Stringer & McAvoy, 1992). Johnson (2002) outlines a model of the benefits from wilderness, in which benefits derived from various aspects of the backcountry experience contribute to individual spiritual development. This model for understanding the contribution of backcountry experience is based in part on the prominent research of both Maslow (1964, 1971) and Csikszentmihalyi (1988a, 1993). The interrelated aspects of the model provide benefits that result from the enduring, to the sublime, and then to the beauty of the wilderness. Next, a feeling of competence that results from interaction with the environment leads to a sense of peace. Finally, self-forgetting, or self-transcendence results as the five prior aspects combine.

The competence component of Johnson's (2002) model is reflective of the peak or optimal experience and their associated outcomes (Csikszentmihalyi, 1993; Maslow, 1964, 1971). These experiences are the result of the informant's ability to meet the challenge associated with the lived experience in the context of the wilderness environment. The ultimate outcome is an elevated or transcendent state, also recognized by Maslow and Csikszentmihalyi, termed self-forgetting by Johnson.

The second purpose of this study was to explore the relationship between the different elements of a backcountry adventure that results in a description of the experience as being spiritual. An understanding of how the attributes of a backcountry

adventure lead to consequences of the experience that are valued as being spiritual contributes to the development of a definition of the term spiritual. Additionally, this understanding can be used to extend the research into the backcountry adventure experience and also to guide program and resource management practices.

To understand the relationships between attributes, consequences, and values of a backcountry adventure, an analysis guided by means-end theory (Gutman, 1982) was employed. Means-end theory originated in the research of consumer behaviors: discovering what attributes of a product provided which consequences to the consumer and the reasons the consumer valued those consequences. Means-end theory provides the basis for understanding the cognitive connection between specific situational knowledge and self-knowledge (Gutman, 1982; Mulvey, Olson, Celsi & Walker, 1994). Means-end analysis (Reynolds & Gutman, 1988), through use of the laddering interview technique, addresses the question of how an understanding the cognitive connections is developed.

The method used to explore this relationship between attributes, consequences, and values is based on laddering interviews (Reynolds & Gutman, 1988). During a laddering interview the researcher asks the informant to identify the attributes most important to him or her and then to explain why these are important. The repetitive query "and why is that important?" serves to lead the informant through a chain of reasoning from the attribute to the consequence and then to a valuation of the consequence (Klenosky, Gengler, Mulvey & 1993).

The progression along the path from attribute to consequence to value is known as the means-end chain. Usually there is more than one means-end chain and these chains interact with one another (Gutman, 1982; Reynolds & Gutman, 1988). In the context of

the present study, the progress in a chain's development is from the relatively concrete attributes of the skiing experience to a more abstract consequence, such as better health or sense of competence, to a highly abstract value, such as an increased feeling of fulfillment (Goldenberg, Klenosky, O'Leary & Templin, 2000). More recently, means-end analysis has progressed to include the exploration of seemingly more abstract attributes, consequences, and values. Huber, Beckmann and Herrmann (2004) have examined the influence of the affective state on the individual's information processing style. This particular analysis both supported the use of means-end theory for the current problem, and provided support (discussed in Chapter 3) for designing the data collection aspects of the present study.

By adopting means-end theory and using the laddering technique to interview backcountry skiers and snowboarders about backcountry experiences that they consider to be spiritual, the study intended both to identify factors that would contribute to a better understanding of spirituality in relation to backcountry adventure (i.e. the role of the natural setting) as well as to identify the relationship between the attributes, consequences, and values associated with such an experience (i.e. how the natural setting might lead to an awareness of beauty, that might culminate in a transcendent experience).

It should be noted that the study was done using the population of backcountry skiers and snowboarders in the region of Teton Pass, Wyoming. The study was not about this population. These users were involved in backcountry activities and were thus chosen to represent those who use the backcountry. The limitations of this assumption are presented in this chapter.

The findings of this study inform future research efforts. The findings also extend means-end theory, contribute to the understanding and policies of resource managers, and inform the more effective design of adventure and education programs. Individuals who seek to understand their personal spirituality in terms of backcountry adventure can use the findings of the present study as a potential framework to better understanding of their experiences. Exploration of the attribute, consequence, and value relationships that shape personal spiritual development can be applied to individual experiences. Grounded in the study's purpose, the research questions follow.

Research Questions

As is evident from the foregoing discussion, selection of the research question was motivated by the personal interest. Another motive was the relationship of the research topic to this researcher's area of professional development (Stake, 1995). The research addressed the following questions:

1. What are the attributes, consequences, and values being expressed when the term spiritual is used to describe the experience of a backcountry adventure?

2. What are the means-end relationships between the attributes, consequences, and values?

3. What are the differences in the means-end structures for subgroups of informants as defined by difference in age, gender, ability, and experience?

4. What are the differences between means-end structures based on mode of activity, specifically alpine skiing, telemarking, and snowboarding?

5. What differences are there between means-end structures based on the type of activity referenced as spiritual?

Delimitations

This study was delimited to the following:

1. Alpine, telemark, or cross country skiers, snowboarders and snowshoers.

2. Informants who identified as having had a backcountry experience that they considered to be spiritual.

3. Primary data collection location of the Teton Pass region accessible from Wyoming Highway 22.

4. Informants, aged 18 years and older, in compliance with human informants protocols.

5. The data collection period over the winter school break and holiday season, from 17 December 2006 through 08 January 2007.

6. Informants who consented to participate in a means-end analysis, laddering interview.

7. Data analyses using a laddering interview technique, content analysis and LadderMap (Peffers & Gengler, 2003) software.

8. Assurance of trustworthiness of the qualitative data was made through use of an expert review panel and pilot test to develop the interview questions and protocols.

9. The content analysis utilized two coders in addition to the primary investigator. Inter-rater reliability was calculated.

Limitations

The limitations of the study represent the generalizability and value of the findings. Given that the research informants were primarily backcountry skiers and snowboarders, the experiences referenced in the context of some of the interviews were confined to those specific backcountry skiing and snowboarding experiences.

The depth and honesty of responses could have been limited by the condition of the informant's personal comfort at the time of the interview. Given the outdoor winter setting in which data were primarily collected, the informant responses could have varied in degree of depth because of the effect of environmental conditions, such as uncomfortably cold temperatures or high wind speeds. Only one of the 66 interviews was conducted in an indoor setting. Upon being approached about participating in an interview, informants addressed their personal comfort needs before giving consent to participate. During the interviews, informants addressed their personal comfort as needed. Therefore, the possible influence of this limitation was restricted.

The personal nature of the research topic may limit or restrict participation during the interview. Even though informants initially agree to discuss the topic, they may not have been entirely truthful when responding to questions if they felt that the researcher was not to be trusted with the confidentiality of their responses. Control for this limitation was attempted in two ways. First, no personal identifying information was associated with the interview data. Second, a relationship was established with some level of camaraderie and trust between the researcher and informant. Further, the researcher employed recommended interview techniques (Reynolds & Gutman, 1988). An indicator of truthfulness of the informant statements was that the vast majority supplied the

researcher with a telephone number that could be used to contact them with possible follow-up questions. Therefore, the possible influence of this limitation was restricted.

The nature of the interview question may have limited or restricted participation during the interview. Some informants had previously not thought explicitly about why they describe an experience as spiritual and thus had difficulty expressing their thoughts on the subject in a concise manner. Recommended interview techniques were used to control for this limitation by attempting to guide the informant through an introspective thought process using the "why is that important to you?" questioning strategy (Reynolds & Gutman, 1988). Based on informant responses, those who had not thought about a way to express what they meant when using this term, spent more time and worked diligently with the researcher by supplying a great deal of information in order to clarify their thinking. Therefore, the possible influence of this limitation was restricted.

Additionally, depending on the researcher's own demeanor at that time, there was a possibility that the researcher's own bias or preferences may influence the informant in any given interview. Every effort was made to control this by limiting the number of interviews in a given day to a maximum of ten, and a given sequence to a maximum of three, so as to maintain sufficient energy to insure that the researcher's own physiological needs were met. Regular review of written interview protocols and suggested interview techniques was undertaken as a way to further monitor the potential influence of personal (Reynolds & Gutman, 1988). The vast majority of interviews lasted between 10 and 15 minutes. The interviewer was conscientious of maintaining an approachable demeanor and providing unbiased responses to informant statements. Therefore, the possible influence of this limitation was restricted.

During the content analysis, the researcher's transcription of the informant's responses had the potential to lead to a misinterpretation of the original intent of the response. Efforts to control for this limitation were made during the interview through the use of the interview techniques and strategies that confirm the intent of each response an informant provides (Reynolds & Gutman, 1988). Therefore, the possible influence of this limitation was restricted.

While every effort was made to sample a broad cross section of informants, the pool may not have been entirely representative of backcountry skiers who describe experiences as being spiritual. This would limit generalizability of the findings to a population with characteristics similar to those of the informants. It is not possible to know the demographic of this population.

Analysis of the data, based on subgroup characteristics, was limited by the number of informants and depended on the characteristics of the final sample. Because of the exploratory and qualitative nature of the research, data were collected to perform analysis on subgroups of informants based on five variables suggested by the literature reviewed: age, gender, ability, experience, and type of activity (Bandura, 2003; Csikszentmihalyi, 1993; Maslow, 1971; Propst & Koesler, 1998; Wohlwill, 1983).

Finally, synthesis of the data was driven by the use of the LadderMap (Peffers & Gengler, 2003) software package. A content analysis was conducted in order to categorize informant responses and this process may have been subject to errors in interpretation of meaning by the interviewer and coders. Control was accomplished through the review of interviewer's notes to confirm meaning at the end of each interview. Control was also accomplished using two coders to confirm the accuracy of

the initial coding of interview data for the content analysis. Inter-rater reliability was calculated at 99.22%.

Assumptions

The following assumptions were made in order to conduct this research:

1. There were a reasonable number of informants who were willing to participate in the interview. On a given day during the chosen data collection period there are typically well over 200 skiers and snowboarders in the Teton Pass region.

2. There were enough informants to study subgroup differences based on the research questions. Relevant variables are a) mode of activity on the day of the interview: alpine skiing, telemarking or snowboarding; b) amount of experience; c) ability; d) gender; e) solo or group experience; f) frequency of participation; and mode of activity in the reported experience.

3. Informants were able to verbally express why they consider an experience to have been spiritual and the factors that contributed to that description.

4. Informants would be honest in their responses.

5. The researcher was able to adequately interview informants and then interpret the data in a meaningful way.

Definition of Terms

The purpose of this study was to better understand the relationship between the attributes, consequences, and values of a backcountry adventure when it is described as spiritual, and thus to better understand what the term spiritual means in the context of that description. As such, the definitions presented provide insight to the meaning that the terms have for participants, as well as scholarly definitions.

Adventure: Goldenberg, McAvoy & Klenosky (2005) summed the literature of several scholars and defined adventure as an outdoor experience requiring effort, including risk and uncertainty, and providing excitement and interaction with nature.

Attributes describe the characteristics of the context or experience (Gutman, 1982). For example, deep snow, a group of friends or a steep slope angle would all be potential attributes of a skiing experience.

Backcountry: An area of wilderness that requires skill and effort to access. The environment provides some level of real risk (Nepal & Chipeniuk, 2005). In the Teton Pass region being used for data collection in this study, the majority of participants partake in activity that is representative of the previously expressed understanding of backcountry. The common reference to the skiing in this region is as backcountry skiing. In this study the terms *wilderness* and backcountry have the same meaning, see below for a definition of wilderness.

Consequences are any result, benefit or cost, positive or negative, that occurs from behavior (Gutman, 1982).

Hierarchical Value Map (HVM): A HVM provides a graphical representation of the amalgamation of individual data into content categories. The portrayal of the relationships and the dominant pathways between the content categories at the level of the various attributes, consequences, and values represent the means-end relationships for different aspects of the experience (Gutman, 1982; Reynolds & Gutman, 1988). For example, in one chain the attribute of snow quality may be linked to shared enjoyment and enhanced relationships, while in another chain the attribute of rigorous exercise might be linked to better health and then to increased sense of wellbeing. It is possible for chains to interconnect and overlap (Reynolds & Gutman, 1982).

Laddering is the process in which the individual identifies the attributes of an experience or product that are personally important. A line of questioning which is essentially "why is (the attribute, consequence, or value) important to you?" is followed until the chain terminates. Through the use of the method of laddering a means-end chain identifies the relationship between the attributes of a product that generate consequences associated with the selection and the value of the purchase (Klenosky, Gengler & Mulvey, 1993). Typically collected during an interview process, the amalgamation of individual data provides a graphical representation of the relationships, and the dominant pathways between the various attributes, consequences, and values: a hierarchical value map (HVM). This consolidation of qualitative data into a quantitative form provides a bridging between the two methods and represents the strength of laddering as a form of qualitative research (Reynolds & Gutman, 1988).

M*eans-end chain*: This terminology refers to the progression along the means-end path from attribute to consequence to value (Reynolds & Gutman, 1988). In this research

a means-end chain might include a link between the more concrete attributes of the skiing experience, to a more abstract consequence, such as better health. In turn the consequence of better health might be linked to a highly abstract value, such as an increased sense of peace (Huber, Beckmann & Herrmann, 2004).

Means-end theory (Gutman, 1982) was developed in the arena of marketing research as a way to understand consumer decision-making in purchasing products. The theory recognizes that attributes of a product or experience provide the consumer with certain consequences (i.e. a benefit). In turn, those consequences have some real or perceived value. Means are products or activities and ends are valued outcomes, experiences, or states of being (Gutman, 1982).

Skier and Skiing: The term is used generically as a way to operationally represent participation in alpine skiing, telemarking and snowboarding in this study.

Spiritual Development: This study uses the term to represent an individual's perception of an increasing level of self-awareness, an enhanced sense of connection to others, of having some sense of peace, and as being part of a transcendent universal oneness (Campbell, 1988; Csikszentmihalyi, 1993; Johnson, 2002; Maslow, 1970; Mitchell, 1983).

Spirituality: Defining spirituality in a way that is universally acceptable is highly unlikely. Spirituality is a construct that has an individualized interpretation. Furthermore, the purpose of this research is to understand what backcountry adventurers mean when describing an experience as spiritual. Thus, instead of a definition, this study offers a way to understand spirituality using the conceptual framework that is developed in-depth in Chapter 2. The essence of the framework is that modern psychology recognizes

individual spirituality as consisting of three themes: identity, fulfillment, and context. Individual identity deals with transcendence of self and the relation of self to community, as well as to the world at large. Secondly, one's individual identity development is enabled in the theme of fulfillment. Fulfillment is attention to one's passions, the creative conduit through which we address the questions about the meaning of our lives. Finally, the context of spirituality represents the setting of the spiritual experience and suggests an almost infinite number of paths.

Transcendence, self-transcendence, and self-forgetting: These terms are recognized to convey the same meaning in this study. Transcendence reflects the process of spiritual development (Campbell, 1988; Csikszentmihalyi, 1993; Johnson, 2002; Maslow, 1970). The following definition is used for all three terms:

> "Self-transcendence has been defined as the capacity to reach out beyond oneself and discover or make meaning of experience through broadened perspectives and behavior (Coward, 1996). As an indicator of spirituality, it has been described as a developmental process involving aspects of self-forgetful experience, transpersonal identification (identification with nature) and spiritual acceptance (Cloninger, Svrakic, Przybeck, 1993), and a characteristic of developmental maturity (Reed, 1983)" (in Kirk, Eaves & Martin, 1999, p. 81).

Values: In the terminology of means-end theory *value* reflects a valuation of some product or experience: the assignment of some meaning that results from a purchase or experience. Values are highly abstract outcomes that are experienced as desired end states of being (Gutman, 1982).

Wilderness: The term wilderness is not easily defined. There is a legal definition of wilderness that includes designated lands; there is a scholarly definition of wilderness as being lands that have not been domesticated by man (Hendee & Dawson, 2002). The legal wilderness designation stems from the recognition by Americans that wilderness is not merely a commodity, but rather a valuable resource that should be preserved for a variety of reasons. One of these reasons is the spiritual value of wilderness experiences in their contributions to individual spiritual development (Hendee & Dawson, 2002). More frequently in the context of wilderness, scholars and resource managers seem to be differentiating between frontcountry and backcountry zones. There are no generally accepted definitions of these two terms (Cressford & Dingwall, 1997).

Chapter 2

LITERATURE REVIEW

Seekers of wilderness experience may "think they go into the back country for a lark, just to test themselves, or to face a challenge, but what they really go in for is to experience at first hand the spiritual values of wilderness... the opportunity of knowing again what simplicity really means, the importance of the natural and the sense of oneness with the earth that inevitably comes with it." (Olson, 1969, pp. 137; 140, in Kaplan and Talbot, 1983, p. 186).

In order to provide a coherent review of the literature relevant to the present research topic of spiritual development and backcountry adventure, the content of this chapter funnels from a broad conceptual perspective, to the research context, to the theoretical perspective for the research, to the research method. Initially, two conceptual frameworks are introduced in a way that provides for a progressively narrower focus. The purpose of these frameworks is to provide structure for the interpretation of the topic and the data. The first conceptual framework is for psychology and spiritual development. This material provides a structure for conceptualizing spirituality in the context of humanistic psychology.

The second framework narrows the scope of spiritual development to the present research context of backcountry adventure. Next, the small amount of research that addresses non-sectarian spiritual development in the backcountry adventure context is examined with the conceptual frameworks in mind. Conclusions are then drawn from this

amalgamation of the frameworks and research findings. Following these conclusions, the theoretical grounding for this study is examined. Means-end theory and means-end analysis are presented. A chapter summary captures the essence of the review in relation to the research at hand.

<div align="center">Conceptual Framework for Psychology and Spiritual Development</div>

There are three interrelated themes in psychology that deal with self-awareness and individual consciousness. These themes serve as a conceptual framework for understanding the process of individual spiritual development. The themes are individual identity, fulfillment, and context. Individual identity deals with transcendence of self and the relation of self to community, as well as to the world at large. Secondly, one's individual identity development is enabled in the theme of fulfillment.

Fulfillment is attention to one's passions, the creative conduit through which we address the questions about the meaning of our lives. Finally, the context of spirituality represents the setting of the spiritual experience (i.e. the natural environment or a church) and suggests an almost infinite number of paths. The fact that the issue of spirituality deals with the individual's knowing of self places this relationship in the realm of psychology (Helminiak, 2001). Several authors address these themes of identity and fulfillment, relating them to individuality and the context of one's passions.

Identity and Fulfillment

The understanding of this psychological concept of self is first addressed through the interrelated themes of identity and fulfillment. Identity is the relationship of the self to the larger world (Conn, 1999). Fulfillment relates to the experience of the self through creativity and the interaction with the world that comes through creative acts (Alma & Zock, 2002). The reciprocity of creative acts between the individual and community is recognized as the development of identity and as satisfying the individual's fulfillment needs. When the self is not given the means to manifest sufficiently, feelings of being incomplete or empty result (Alma & Zock, 2002; Conn, 1998; Helminiak, 2001). According to Maslow's (1970) theory, individual immersion and accomplishment in one's passions leads to fulfillment as well as to self-awareness and then self-transcendence.

Self-awareness is central to our healthy development of identity (Alma & Zock, 2002; Conn, 1998; Csikszentmihalyi, 1993; DeHoff, 1998; Helminiak, 2001; Maslow, 1970). Self-awareness fosters our progress toward transcendence through broader awareness of, and compassion for, the world and the pursuit of our passions. Expression of what we care about – through action, creativity and chosen community – leads us to our sense of identity. The sense of realness and meaningfulness that comes as we achieve our sense of identity is tied to our community through our personal commitments. Realness and meaningfulness are the result of our chosen modes of expression. The form in which the self manifests is only relevant so long as this form resonates with the individual's passion or sense of purpose. When one activity no longer grips our passion, it is time to follow a different passion. It is this means of fulfillment that provides a non-

dualistic awareness of body and mind, transcendence. Ultimately, as self-awareness evolves, one is able to transcend the self for the benefit of both the community and the realm of all things (Alma & Zock, 2002; Conn, 1998; DeHoff, 1998; Maslow, 1964, 1971).

The evolution of individual self-awareness can be thought of in the framework of Maslow's (1970, 1971) hierarchy of needs. The evolution represented in this hierarchy is the phenomenology of progressively discovering one's self though biology and psychology, body and character (Maslow, 1964). The growth of self-awareness through the progressive satisfaction of needs, phsyiological-safety-belonging-esteem-actualization-transcendence, represents an evolution from instinctual or unconscious to conscious awareness of thoughts and actions.

Consciousness is based on three functional subsystems of the central nervous system:

"…attention, which takes notice of information available; awareness, which interprets the information; and memory, which stores the information (Broadbent, 1958; Pope & Singer, 1978). The content of consciousness is experience, that is, the sum of all the information that enters it, and its subsequent interpretation by awareness (James, 1890)" (in Csikszentmihalyi & Csikszentmihalyi, 1988, p. 17).

Thus initially, as one begins to become self-aware as a result of experiences, that awareness is promoted or nurtured by the benefits gained by the individual from those experiences.

Csikszentmihalyi (1975) calls this tendency the teleonomy of the self, the natural tendency to make choices based on experiences that one finds to be pleasurable,

enjoyable, fulfilling, or rewarding in some intrinsic way. The teleonomy of the self is expressed in the phenomenon termed *flow*. Flow experiences serve to motivate the individual toward a goal of experience for experience sake (Csikszentmihalyi, 1988a). The point here is that experience draws one to further experiences; the resulting psychological benefit to the individual is a move toward greater self-awareness (Csikszentmihalyi, 1988a; Csikszentmihalyi, 1993, Chulef, Read & Walsh, 2001; Maslow, 1970; Piedmont, 1999). In turn, self-awareness leads to self-transcendence and represents, either overtly or implicitly, an individual's path for spiritual development (Conn, 1998; Csikszentmihalyi, 1993; Maslow, 1971).

The process of self-transcendence requires one to be self-aware (Maslow, 1964, 1971) Self-transcendence is a lofty goal (Gathman & Nessan, 1997). The understanding of self-transcendence is rooted in the work of James (1890), Merton (1960) and Maslow (1964, 1971), and elaborated upon by (Alma & Zock, 2002; Conn, 1998; Csikszentmihalyi, 1993; DeHoff, 1998; Helminiak, 2001; King, 2003). These authors contend spirituality, or self-transcendence, is the driving force behind human-nature. Thus, self-transcendence is the innate motivation for pursuing our spiritual development. The framework for understanding spiritual development also includes the context. Context facilitates both the preferred form of fulfillment and development of identity.

According to the previous discussion, one engages in backcountry adventure because of the inclination that such an experience will offer fulfillment. Correspondingly, participation in backcountry adventure leads to self-identification as an adventurer or outdoor person. Thus, it is both of these contexts, the backcountry setting and the type of

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adventure that are important to fulfillment and identity. The role of context in spiritual development is discussed next.

Context

Spiritual development can occur in contexts that take many forms, from that of organized religion to the non-sectarian practices and beyond (King, 2003). Sectarian religious practices are rooted in ancient traditions. These contexts provide a limited number of paths for spiritual development, relative to all possible contexts (Campbell, 1973, 1988; King, 2003). Non-sectarian spirituality provides more contexts, but those are less developed. The challenge of our times is the multiplicity of paths (Alma & Zock, 2002; Csikszentmihalyi, 1993). The implication is that backcountry adventure represents a spiritual path of fulfillment for those who choose it. These paths also represent the third theme of the spiritual identity, context.

Context refers to how one defines or names the relationship, which has been described in many ways: for example as God, or life force, or higher power, or universal flow of energy (Campbell, 1973). King (2003) defines the context in this way:

> …spiritual context refers to opportunities to experience a profound sense
> of connectedness with either supernatural or human other, that other
> invokes a sense of awareness of self in relation to other. This heightened
> consciousness of others often triggers an understanding of self that is
> intertwined and somehow responsible to the other. (p. 201)

Succinctly, King refers to spiritual context as one's consciousness of the interrelationship with "God, community of others, or nature" (p.201). Other authors avoid the theistic

connection and recognize a general conceptualization of this interrelatedness, such as through nature or a universal force, depending on the individual's path (Alma & Zock, 2002; Conn, 1998; Helminiak, 2001; Maslow, 1964). With this understanding of context, wilderness can represent a context in which one is conscious of a relationship with nature.

Summary

From the perspective of humanistic psychology, the process of spiritual development involves the relationship of the individual's identity in relation to self, community, and the world at large. Identity develops best from participation in a chosen area of interest, an area that is experienced as being fulfilling to both interest and intrinsic motivations. The context is the realm in which individual identity is developed, the realm of creative expression in which individual fulfillment is realized. The next section connects this understanding of identity, fulfillment, and context to the backcountry adventure experience.

Conceptual Framework for Spiritual Development and Backcountry Adventure

The study is driven and narrated, in part, by the spiritual exploration currently evident in the American culture (Godbey, 1997; Heintzman, 2003). Research into the influences of backcountry experience on spiritual inspiration attempts to define and shape the understanding of spiritual development from backcountry experiences (Fredrickson & Anderson, 1999). While spirituality is defined by the individual, there are broad

constructs representative of spiritual development, such as inner peace, "sense of place", and oneness with nature, that appear to be relevant to the spiritual outcomes of a backcountry experience. The combination of the "sense of place" (Tuan, 1977) from a backcountry setting and the flow experience attainable through high-adventure (Csikszentmihalyi, 1988b, 1993) can lead ultimately to self-actualizing episodes (Heintzman, 2003; Maslow, 1962). Additionally, sharing the experience in the context of a small group can add to spiritual inspiration (Fredrickson & Anderson, 1999). Research also shows a relationship between spirituality and health (Benson & Stark, 1996) and wellbeing (Csikszentmihalyi, 1993; Maslow, 1964). Hawks (1994) supports the connection of wellbeing with spiritual health.

Johnson (2002) outlines a model by which benefits derived from various aspects of the wilderness experience contribute to individual spiritual development. The related benefits and their associated characteristics follow:

1. The enduring: that which offers assurance through its permanence in the ever-changing world.

2. The sublime: the immense and powerful presence that instills a sense of awe.

3. Beauty: experiencing beauty instills a sense of peace.

4. Competence: a sense of empowerment that arises from a challenge.

5. Sense of peace: the result of a flow experience. One in which the challenge has required focus in the face of risk, demanded that ability be fully utilized, and provided immediate and unambiguous feedback that has lead to improved performance.

6. Self-forgetting: oneness with nature or transcendence. Self-forgetting

develops as a result of the combination of the other five benefits. These elements are described in the order in which they relate and contribute to one another and as they originate from religious and spiritual traditions. Qualitative research by this author (Marsh, 2006) suggests confirmation of Johnson's (2002) model.

Marsh's (2006) research into vertical caving experiences was guided by Johnson's model. Informants in this study recounted spiritual benefits of the underground wilderness caving adventure that reflected the relationship between the elements of the model. The implication is that the model provides a framework for furthering the research addressed in this study.

The order in which the benefits contribute to spiritual development corresponds with the progression of Maslow's hierarchy of needs leading to self-actualization and self-transcendence (1964, 1970, 1971), and with Csikszentmihalyi (1988a, 1993) concept of flow and optimal experience. Correlation of the model of six benefits with self-actualization, self-transcendence and optimal experience supports the concept of a backcountry adventure experience as leading to spiritual development.

Optimal experience, or flow (Csikszentmihalyi, 1988a) is a function of the relationship between level of skill and challenge undertaken in a freely chosen activity from which immediate feedback about performance is available. As awareness elevates one attains flow when the skill-challenge-feedback cycle reaches a state of balance, the optimal level. The increasing awareness in this cycle is increasing consciousness, which can lead to a transcendent state of being. Transcendence is the essence of spiritual evolution (Csikszentmihalyi & Csikszentmihalyi, 1988; Csikszentmihalyi, 1988a; Maslow, 1964). Adventure experiences have the potential to lead to states of flow and to

spiritual development (Kaplan and Talbot 1985; Ulrich, 1983; Wohlwill, 1983).

Self-actualizing and self-transcending episodes bring deeper understanding of life and build on themselves, perpetuating personal and spiritual growth as well as more self-actualizing episodes (Csikszentmihalyi 1993; Maslow, 1962, 1964, 1970). Achieving a state of flow is a way of continuing one's growth, or self-actualization. Self-actualization is not a "static, unreal, 'perfect' state in which all problems are transcended and in which people live 'happily ever after' ". Self-actualization is "a development of personality which frees the person from the deficiency problems of youth and from the neurotic problems of life" (Maslow, 1962, p.109). Self-actualizing episodes are represented by a sense of inner peace as a result of this freedom.

Csikszentmihalyi (1993) and Maslow (1962, 1970) teach that elevated levels of awareness result in elevated levels of consciousness that transcend the individual and lead to a higher state of being, the transcendent being, a spiritual experience. Seeking a state of flow is done in order to achieve self-actualization and self-transcendence, and pursue spiritual development, or to simply repeat the experience. In 2003, Heintzman summarized recent research on spirituality and wilderness. In short, knowledge of the benefits of spirituality and the use of natural settings as a spiritual enabler is growing. These benefits from backcountry settings include inner peace, sense of place, and beauty of the natural setting. Recognition of the value of the backcountry setting's contribution to the adventure adds to the understanding of the spiritual development that can result from these experiences.

Summary

As a means to explore spiritual development, and thus gain insight into the benefits derived from backcountry adventures, the present research will capitalize on the learning from the prior study (Marsh, 2006) in order to add to the understanding of the developmental process ascribed by Johnson (2002). Researchers seem to prefer to let the individual self-define spirituality (Fredrickson & Anderson, 1999; Stringer & McAvoy, 1992) or to use a more specific construct such as transcendence (Williams & Harvey, 2001). The vehicle for spiritual development is the combination of the context of the natural setting and the phenomena of the adventure experience that provide the foundation for identity and fulfillment. Thus, with the overlap shared by identity, fulfillment, and context in both of the conceptual frameworks discussed, this second conceptual framework, for spiritual development from backcountry adventure, is nested in the first conceptual framework for psychology and spiritual development. The purpose of the present research exploration is to further understand how and why this combination of adventure and backcountry provides the impetus that can lead one to transcend the common state of being and to experience self-actualization or self-transcendence. Research on backcountry adventure and the relationship to spiritual development is reviewed next.

Research on Spiritual Development and Backcountry Adventure

This section presents an overview of research relevant to the present study. The focus of the research questions varied and the studies are relevant to spirituality and the

backcountry. This review briefly focuses on the findings of each study that are related to spiritual development, supporting the guiding conceptual frameworks that was used to provide an important level of understanding for placing responses in appropriate content categories during data analysis. The summary ties the research to the conceptual frameworks of both psychology and backcountry adventure in relation to individual spiritual development.

A major study by Heintzman and Mannell (2002) examines the relationship between leisure, spirituality, coping and wellbeing. The relevant factors that emerged from the large and diverse sample were sacrilization, or awareness of the spiritual dimension of life; and "sense of place", the inspiration and connectedness resulting from the context of the setting. While "sense of place" was related to spiritual experience, the authors were unable to detect any significant role of the environment. The findings affirm the need to better understand the meaning associated with spiritual experience, as well as the importance of context in spiritual development. The following research findings support the psychological conceptualization of spirituality as identity, fulfillment and context.

Individuals gain perspective about who they are in comparison to others in society, thus there is benefit in understanding the whole community as a means to developing individual awareness (Mitchell, 1983). Richard G. Mitchell, a social psychologist, undertook to study the American community's general thinking about mountain climbers and thus adventure. The results suggested that roughly half of American society viewed climbers as "good", demonstrative of valued physical, mental and social attributes. Twenty percent of the population represented the polar opposite,

thinking of climbers as "bad", i.e.: crazy and lacking any common sense (Mitchell, 1983). Other responses focused on the environment, the task, the well-know people and places, danger and the existential nature of adventure. Mitchell interpreted the analysis as reflecting that some portion of American society recognized, or at least fantasized, a holistic or transcendental value to the mountain climbing experience, a backcountry adventure. The lenses of American perception seemed to reflect that at least one form of backcountry adventure was considered to contribute to spiritual development. This awareness level suggests that there is some desired developmental value to the fulfillment of adventure in the backcountry context that enables the individual to develop their identity.

In 1977, Rossman and Ulehla interviewed wilderness users as a means of identifying rewards from this usage. The study positioned the environment as the instrument used to explore the relationship of the individual's experience to the expected outcome. The largest portion of variance, 26%, was explained by the factor "*Religious or 'spiritual' experience encountered in wilderness settings*" (p. 51). Spirituality was the most important value of the wilderness experience, and the more remote the wilderness, the greater the expected value of the experience.

In longitudinal research conducted from 1972 to 1981, Rachel and Stephen Kaplan (1983) collected data through the Outdoor Challenge Research Program (OCRP). The overall conclusions of spiritual growth, or increased self-awareness, and sense of peace that results from the wilderness adventure, indicate the role of the intimate relationship that one experiences with the wilderness (Kaplan & Kaplan, 1983). Contemplation and reflection were found to promote spiritual awareness (Kaplan &

Talbot, 1983). This relationship is termed "sense of place" in the literature and is

reflective of the theme of context in the psychological framework of the present research.

Lending further support, the findings of the entire project, as noted by the authors, were

interpreted as being amazingly consistent in the psychological benefits identified across

groups and subjects (Kaplan & Kaplan, 1983; Kaplan & Talbot, 1983; Kaplan, 1984).

A study commissioned to determine the effects of jeep tours on the benefits to

non-motorized recreationists (Behan, Richards & Lee, 2001) found that these

recreationists explicitly sought spiritual benefits. Conclusions from the jeep study were

consistent with the findings from the OCRP studies: that the context of the backcountry is

an essential component of the spiritual development sought.

The spiritual development resulting from vision quests is reported by Riley and

Hendee (1998). The ten-year longitudinal study reports spiritual benefits across a fairly

diverse group of exclusively urban adults. Findings indicated the present themes of

identity and context, that self-awareness lead to connections with nature and others,

ultimately resulting in a spiritual experience.

Thus far, the research reviewed affirms the perspective on spiritual development

in the first conceptual framework for psychology and spiritual development, presented at

the beginning of this chapter. Spiritual development is reflected as leading to an increased

self-awareness; an increased sense of oneness with all things; a sense of interpersonal

community; and some sense of peace. The backcountry itself provided the context in

which peace was experienced and promotes the use of skills leading to fulfillment. In

most instances a social dynamic, an aspect of the identity theme, has been evident.

Recognizing the presence of the three themes from the psychological framework for

spiritual development, the review now looks at studies that further affirm the framework for spiritual development and backcountry adventure.

Mitchell (1983), in the book *Mountain Experience,* presented a social-psychological view of Americans on mountain climbers. Mitchell argued that flow or optimal experience, like Maslow's peak experience, is the reason for mountain climbing. That flow first leads one to self-actualization and ultimately to self-transcendence. Mitchell recognized that transcendence is an "ultimate" goal of spiritual experience. The more familiar schema of Maslow's (1964, 1971) hierarchy moves from self-actualization to transcendence. Research on actualization is the next focus.

The work of Young and Crandall (1984) found self-actualization as a result of wilderness usage in the Boundary Waters Canoe Area Wilderness (BWCAW). The hypothesis being tested addressed individual levels of self-actualization as related to wilderness experience. An operational definition summarizes an actualized person as being one who is secure in her or his self, not bound by the opinions of society, and who uses their abilities to the fullest potential. The findings indicate that wilderness users are more self-actualized than non-users, but that there was no relationship between high level of self-actualization and increased frequency of wilderness usage. They conclude that some self-actualizers use wilderness as a means for a self-actualizing experience.

According to prior discussion on Maslow (1972), it is a person who is in a self-actualized state that can transcend. Williams and Harvey (2001) study of adventures in forest environments examined characteristics common to transcendence, flow and peak experience, in their investigation of the relationship between nature and spirituality. The

similarities among those three constructs support the framework of spiritual development from backcountry adventure. The characteristics are:

Strong positive affect;

Feelings of overcoming the limits of every day life;

A sense of union with the universe or some other power or entity;

Absorption in and significance of the moment;

A sense-of-timelessness. (p. 249)

The study further proposes three possible explanations for the effect of spiritual development. First, the dynamic power of the unconscious is attributed to stimulating reflection and transcendent experiences, the identity theme. Secondly is the explanation of "sense of place", the context theme. Finally, comes the role of the activities that normally occur in nature and can lead to states of flow or optimal experience, the fulfillment theme. These findings affirm the relationship between the psychological perspective on spiritual development and the role of the backcountry adventure in facilitating spiritual development.

Beck (1987), in a phenomenology of river recreation, looked specifically at optimal experience in a wilderness whitewater adventure. Spirituality was one of nine dimensions of optimal experience that were identified. The study is another exploration of transcendence. A pattern of findings is emerging in the literature that corroborates transcendence in relation to "sense of place" and the role of social dynamic in an experience. The implications for the present study are a validation of the conceptual frameworks being used to guide understanding and interpretation in this research.

Fredrickson and Anderson (1999) essentially confirmed the findings of Stringer and McAvoy (1992), that social dynamics as well as diverse environments contribute differently to spiritual experiences. The purpose of the Fredrickson & Anderson study was to examine the wilderness and "sense of place" as it related to spiritual experiences. Stringer & McAvoy sought to define and identify the spiritual aspects of backcountry adventure. Overall findings indicated that unique combination of landscape and differing levels of social involvement facilitated a spiritual experience for many of the informants. The interviews with both groups identified the sacred place phenomenon of their environments as well as a sense of genuine spiritual growth for most informants. The assertions support the notion of spiritual development occurring as a result of backcountry adventures.

The final study reviewed, Zequeira-Russell (2002), identified spiritual growth through wilderness travel. A wilderness leadership course in the Sierra Nevada mountains provided the treatment for this study. Solitude and the environment were identified as being related to spiritual transcendence. The research reviewed provides evidence that supports the use of the conceptual frameworks in guiding the understanding of the meaning of spiritual experience, as well as the relationship between the attributes, consequences, and values of such an experience. Next is a summary of the implications for this study from the conceptual frameworks and reviewed research.

Summary

The evolution across the studies reviewed indicates that self-selection, while normally considered a bias in research, may be a critical component in the research of

context specific spiritual situations, such as backcountry adventure. Those who would not choose backcountry experiences would likely be precluded from spiritual experiences in this environment because of a lack of comfort or of "sense of place" awareness. The research identified that a "sense of place", or context, is evident in the experiences of informants who report self-awareness, personal growth, or spiritual experience from wilderness adventure.

The research reviewed looked generally at the term spirituality from the humanistic perspective of self-actualization and self-transcendence. Humanistic psychology reflects the benefits of the backcountry adventure context in contributing to spiritual development through an elevated sense of personal awareness in relation to others and one's environment, as well as a sense of peace and transcendence.

The review of the humanistic perspective on spiritual development reflects that an evolving consciousness is grounded in a sense of security, comfort and self-assuredness. These groundings lead to comfort with ones self as an individual and community member, and eventually to transcendence of needs of the body and self in order to better serve some higher form of energy that connects all life. A common construct of spirituality is not yet agreed upon, but researchers seem now to use similar descriptions in the genre of transcendence as a way to identify experiences as being spiritual in nature. None of these studies looked at measuring the meaning that was conveyed in use of the word spiritual as a descriptive term, implying the potential for meaningful contribution from the present study.

The research reviewed also supports the chapter's second conceptual framework, that being the understanding of the contribution of backcountry adventure to spiritual

development. The relationship between the two conceptual frameworks supports the value of utilizing these perspectives for conceptualizing spirituality. The evidence also supports the interpretation of the interview data and findings in terms of humanistic psychology and backcountry adventure established in these two frameworks. Implications from this summary are presented in the following conclusions.

Conclusions from the Frameworks and Research

Conclusion for the present research can be drawn from the conceptual frameworks of psychology and spirituality, and the spiritual development from backcountry adventure. These frameworks suggest the value of considering antecedents as part of the data analysis. Specifically, the theoretical perspective of Maslow's hierarchy (1964, 70) and flow theory (Csikszentmihalyi & Csikszentmihalyi, 1988) suggest age, ability, and experience. The research discussed (Kaplan & Kaplan, 1983; Stringer & McAvoy, 1992; Frederickson & Anderson, 1999) suggests evaluating the social setting, the identity factor for a group or solo experience.

The most notable implication from the summary of the research is a need to develop an understanding of what is meant by describing an experience as spiritual. While research has taken the route of not defining what informants mean when they describe an experience as being spiritual, there has also been little effort to inquire into this meaning. Leisure scholars (Cordell, 1995; Coalter, 1999; Driver, 1999; Hemingway, 1999) agree that there is a paucity of research in North American leisure science that explores the meaning that an experience has for the individual. As research efforts

proceed into backcountry adventures that are deemed to have an effect on spiritual development, there is a need for the exploration of the meaning that participants ascribe to these experiences. The relationship between meaning and the means-end chain is discussed more thoroughly in the next section. Briefly, in terms of means-end theory, the cognitive construct of meaning is represented as a valuation of the consequences, a highly abstract outcome: an experience or states of being (Gutman 1982). In achieving this understanding it is important to identify the relevant attributes of the experience; the resulting consequences, benefits or costs; and the values of those consequences, highly abstract outcomes that are experienced as desired end states. Similarly, this issue of understanding meaning suggests an opportunity for exploration using a method that provides a combination of qualitative insight and the quantitative sampling that will yield an understanding of the relationships between the various attributes, consequences, and values associated with the description of a backcountry adventure as being spiritual. Additional benefits from such a method include the potential for a broader generalization of the findings as well as for providing a cost structure that is significantly less labor and time intensive than an approach that solely utilizes interviews in order to collect the same level of meaningful data. The recognized need to explore meaning and the implications for method suggests a means-end analysis. Means-end theory is next examined as a useful way to gain insight into what the meaning is when a wilderness experience is described as being spiritual.

Means-End Theory

Means-end theory (Gutman, 1982) was developed in the arena of marketing research as a way to understand consumer decision-making in purchasing products. Through the use of the associated method of laddering (Reynolds & Gutman, 1988) means-end theory explores the relationship between the attributes of a product that generate consequences associated with the selection and the value of the purchase or experience (Klenosky, Gengler & Mulvey, 1993). The consequences can be divided into functional consequences, such as satisfaction of hunger, and psycho-social consequences, such as psychological benefits from participating in an experience or social benefits from helping with a community service project (Baker, Thompson & Engelken, 2004). In leisure and recreation this relationship can be thought of as the attributes of the experience that generate the consequences of benefit or cost, such as risk, and the value or meaning that those consequences hold (Goldenberg, Klenosky, O'Leary & Templin, 2000; Haras, Bunting and Witt, 2006; Klenosky, Templin and Troutman, 2001; Walker and Olson, 1991).

Attributes describe the characteristics of the context or experience (Gutman, 1982). For example, deep snow, a group of friends, or a steep slope angle would all be potential attributes of a skiing experience. Consequences are any result, benefit or cost, positive or negative, arising from a behavior (Gutman, 1982). In the context of the steep slope angle, a consequence might be an increased level of challenge. Values are "an enduring prescriptive or proscriptive belief that a specific end state of existence or specific mode of conduct is preferred to an opposite end state or mode of conduct for

living one's life" (Bearden, Netemeyer & Mobley, 1993, p. 95). Using the same steep slope and consequence of challenge, the emerging value would be a feeling of mastery, if skied well. In other words, values are highly abstract outcomes that are experienced as desired end states (Gutman, 1982).

The progression from attributes to consequences to values is essentially understood as being a progression of levels of abstraction (Baker, Thompson & Engelken, 2004; Goldenberg, McAvoy and Klenosky, 2005; Klenosky, 2002; Pieters, Baumgartner & Allen, 1995). The attributes of an experience are more concrete than the consequences derived from participating. At the highly abstract level lie the values derived from attaining the consequences. Similarly, the meaning attached to an experience (Csikszentmihalyi, 1988b; Maslow, 1971; Massimini, Csikszentmihalyi & Delle Fave, 1988; Wohlwill, 1983) or place (Kaplan & Talbot, 1985; Tuan, 1974, 1977; Wohlwill, 1983) results from experiencing the value attached to the consequences from the attributes of the experience. An example reflecting this value–consequence–attribute order: a valued sense of competence, emerging from the consequence of optimal challenge in a rock climbing experience in a location that is attributed as being both beautiful and remote.

Means-end analysis has been expanded in research from understanding decision making to the understanding of consumer behaviors. Studies have examined basic product preferences, such as breakfast beverage products (Gutman 1982). Research surrounding more complex choices includes organic foods (Baker, Thompson & Engelken, 2004), recycling goals (Bagozzi & Dabholkar, 1994), expectations about service employees (Pieters, Bottschen & Thelen, 1998), recruiting student athletes

(Klenosky, Templin & Troutman, 2001), and as a way to standardize marketing programs (Botschen & Hemetsberger, 1998). On more abstract levels, means-end theory has been applied in order to explore the relationship between consumer knowledge and subsequent levels of involvement in a product (Mulvey, Olson & Celsi, 1994), the influence of affective state on processing of information (Huber, Beckmann & Hermann, 2004) and on connecting product attributes with self-identity (Walker & Olson, 1991).

In recreation and leisure services, means-end theory has been used to better understand factors that influence ski area choice (Klenosky, Gengler & Mulvey, 1993), factors that attract tourists to destinations (Klenosky, 2002), and the use of services by tourists in nature based interpretive settings (Klenosky, Frauman, Norman, and Gengler, 1998). More directly related to the research at hand, means-end analysis has been used to explore ropes course experiences and involvement (Goldenberg, et. al., 2000; Haras, Bunting & Witt, 2006) as well as Outward Bound course components (Goldenberg, McAvoy & Klenosky, 2005) and Outward Bound employee perspectives on service learning (Goldenberg, Pronsolino & Klenosky, 2006).

Means-End Chains

The primary assumption of the theory is that attributes of an experience represent the means to achieving the ends that are desired from that experience (Gutman, 1982). Consequences lead to some real or perceived value. Thus, means are activities and ends are valued outcomes: experiences or states of being (Gutman, 1982). A means-end chain is the term that identifies the relationship, or links, between the concrete attributes of an experience that generate more abstract consequences associated with participation and in

turn lead to the highly abstract values from the experience (Klenosky, Gengler & Mulvey, 1993). "The end consequences of some means-end chains can be quite abstract" (Mulvey, et. al., 1994, p. 51). A three-step analysis is used to generate the means-end chain.

Means-End Analysis

A means-end analysis first uses the techniques of laddering interviews to gain insight into the attributes, consequences, and values that are important to the informant. The interview data are then content analyzed to generate associated categories for each element: categories of attributes, consequences, and values (Reynolds & Gutman, 1988; Mulvey, et. al., 1994). When the content coding is completed, LadderMap (Peffers & Gengler, 2003) software is used to generate the hierarchical value map.

The laddering interview is the process in which the informant identifies the attributes of an experience or product that are important. A line of questioning that is essentially "why is (the attribute or consequence) important to you?" is followed until the chain terminates (Klenosky, Templin & Troutman, 1998). Typically collected during a verbal interview, the amalgamation of individual data provides a graphical representation of the relationships and the dominant pathways between the various attributes, consequences, and values: a hierarchical value map (HVM). This consolidation of qualitative data into a quantitative form provides a bridging between the two methods and represents the strength of laddering as a form of qualitative research: an increased quantity of meaningful data from which broader generalizations about the elements and their relationships can be made (Mulvey, et. al., 1994; Reynolds and Gutman, 1988).

Laddering

The most frequent method (Hofstede, Audenaert, Steenkamp & Wedel, 1998) of data collection utilized in means-end analysis is the laddering technique (Reynolds & Gutman, 1988). During a laddering interview the researcher asks the informant to identify the attributes most important to them and then inquires as to why each of these are important. The repetitive query "and why is that important?" serves to lead the informant up the ladder from concrete means to a highly abstract end. This process creates a chain of reasoning that links an attribute to consequences and in turn links consequences to a terminal value (Klenosky, Gengler & Mulvey, 1993). The laddering process can generate a chain with one or more links. The minimum chain is an attribute linked to a value, frequently at least one consequence is also part of this series. The chain is completed at the point a terminal value is reached, a point at which the respondent might give an answer such "that is all", "just because", or "I don't know" (Goldenberg, McAvoy & Klenosky, 2005; Reynolds & Gutman, 1988).

Laddering produces two types of linkage in a chain (Klenosky, Gengler & Mulvey, 1993; Mulvey, et. al., 1994). Direct linkages (X–>Y and Y–>Z) are explicitly stated steps of the laddering process. Indirect linkages (X–>Z) are implicitly stated because of the two direct links, (X–>Y and Y–>Z) (Klenosky, et. al., 1998). An example of a direct linkage would be the attribute of boldly flavored coffee having the consequence of tasting good and the value of being satisfying. An indirect linkage would be the attribute of bold coffee having the value of being satisfying. Next, an implications matrix is created that links all the components of the means-end chain in an aggregated form (Klenosky, Gengler & Mulvey, 1993; Mulvey, et. al., 1994). It is recommended that

indirect links be included to avoid potential biasing resulting from more verbose informants (Klenosky, Gengler & Mulvey, 1993). Finally, a hierarchical value map is generated from the implications matrix. The interview data used in constructing the means-end chain can be collected via verbal interviews or written questionnaires.

Interviews and Data Collection

Interview data can be colleted in verbal or written form; there are advantages and disadvantages associated with each method (Botschen & Hemetsberger, 1998). The advantages of written questionnaires are that less time and effort are required, a larger sample can thus be gathered, the potential for interviewers presence to affect a socially expected response is minimized, and the potential for interviewer biases are more easily avoided (Botschen & Hemetsberger, 1998). Conversely, written questionnaires may prove difficult in extracting more abstract level of response and may result in a more cursory response given the format of the form. Although providing both the potential for interviewer demeanor to bias responses and the possibility of respondents giving responses that are deemed socially acceptable, there are also significant advantages to verbal interviews. Face to face interaction provides the opportunity to better ascribe meaning to the respondents words, and thus to direct the line of questioning to either affirm or disaffirm the researchers interpretation (Bagozzi & Dabholkar, 1994; Reynolds & Gutman, 1988). Given that the responses are then reduced to categories during the content analysis phase, it is desirable for the researcher to have the clearest possible understanding of the response (Huber, Beckmann & Hermann, 2004). Research has shown that, depending on the research question, the two forms of data collection, verbal

and written, can yield the same result, thus indicating that selection of method should be based on the attributes of the given study (Huber, Beckmann & Hermann, 2004).

The discussion above suggests that, in the context of the present study, a verbal interview protocol provided an advantage over a written protocol through the opportunity for the interviewer to better understand the intent of the informant's response. Given that the focus of the research question is around the context of the informant's consideration of the meaning of the term spiritual, of which the present research achieved a better understanding, the verbal protocol provided the interviewer with an immediate opportunity to seek clarification. In seeking clarification of an informant's response, the interviewer was able to better identify the response as being reflective of an attribute, consequence, or value of the experience. This clarification process provided the informant with the opportunity to be more succinct and for the researcher to explore the informant's intent, thus reducing the potential for researcher's misinterpretation of the response data, during the content analysis phase (Huber, Beckman & Hermann, 2004).

The reasons for using the verbal protocol with this topic were first, the need for greater control in the laddering interview in order to remain focused on the context and second, to best insure the researcher's understanding of the informant's intention. These guidelines were important because of the already abstract nature of the topic of spirituality; the exploratory nature of the research that might yield unforeseen attributes, consequences, and values, and thus benefit from the opportunity to probe for understanding that is not offered in a written survey format; and the potentially sensitive nature of the topic that might cause informants to misinterpret the intention of a written form and thus limit their responses to an unintended context (Goldenberg, 2006; Huber,

Beckman & Hermann, 2004; Reynolds & Gutman, 1988). It was also expected that the

verbal interview would provide the researcher with better insight for coding the responses

in the content analysis. As it turned out, this expectation was met; the informant

responses provided the bases for the content categories used in coding the responses.

Chapter 3

METHODS

When anyone would ask, "Isn't it basically a meaning in life for which we all are searching?" Joseph Campbell, the renowned scholar of comparative mythology would emphatically reply, "No, that's not it – it's deepening and opening the *experience* of life that we're really after." (Larsen & Larsen, 1991, p. 432)

In order to better understand the intended meaning when using the term spiritual as a descriptor, this study employed a means-end analysis. The present chapter first reviews the purpose of the study and the research questions. The method sections discuss the location, informants, instrument, pilot study, interview protocols, data analysis and inter-rater reliability.

Purpose of the Study

The purpose of this study was twofold. The first was to establish an understanding of what is meant when someone describes a backcountry adventure as spiritual. In achieving this understanding it was important to identify the relevant attributes, consequences, and values of the experience. A further purpose of the study was to better understand the relationship between these attributes, consequences, and values. The two conceptual frameworks for spiritual development, discussed in the previous chapter, were used to aid in interpretation of the data.

To understand the relationships between the attributes, consequences and higher values that result, an analysis guided by means-end theory (Gutman, 1982) was

employed. The progression along this path from attribute to consequence to value is known as the means-end chain (Reynolds & Gutman, 1988). In this research a means-end chain might include a link from a more concrete attribute, the skiing experience, to a more abstract consequence, such as better health. In turn the consequence of better health might be linked to a highly abstract value, such as an increased sense of peace (Huber, Beckmann & Herrmann, 2004). The research questions, reviewed below, were designed to explore these means-end relationships and to better understand what antecedents and factors may be involved.

Research Questions

The study identified elements that contribute to the meaning of spiritual as a descriptor of backcountry adventure and also identified the relationship between the attributes, consequences, and values associated with the experience. As introduced in Chapter 1, the research addressed the following questions:

1. What are the attributes, consequences, and values being expressed when the term spiritual is used to describe the experience of a backcountry adventure?

2. What are the means-end relationships between the attributes, consequences, and values?

3. What are the differences in the means-end structures for subgroups of informants as defined by difference in age, gender, ability, and experience?

4. What are the differences between means-end structures based on mode of activity, specifically alpine skiing, telemarking, and snowboarding?

5. What differences are there between means-end structures based on the type of activity referenced as spiritual?

Insight into these questions was pursued using means-end theory and the associated method of laddering interviews with backcountry skiers and snowboarders in the Teton Range of Wyoming.

Location

The site for data collection was Teton Pass, Wyoming. Wyoming State Highway 22 connects Jackson, Wyoming to Victor, Idaho. Jackson is better recognized by the name given to it by early trappers in the area, Jackson Hole. The parking lot at the top of Teton Pass is a site that is used by a number of people as a staging area for backcountry adventure, specifically skiing and snowboarding. According to Wyoming Department of Transportation (WYDOT) statistics (USDA, 2004), there are more than 100 cars in the parking lot, on a busy winter day at the top of Teton Pass. Based on this volume, the informant pool from the Teton Pass location was deemed reasonably representative of the backcountry skiing population in the region.

The Teton Pass region is a desirable location for backcountry adventure because of the access to over 2000 vertical feet of mountainous backcountry skiing terrain that spreads into the Teton Range to the north and the Snake River Range to the south. The Tetons regularly receive more than 400 inches of snowfall over the course of a ski season. There were skiers in the area every day during the data collection period. These tens of thousands of acres, ample snowfall, the high number of skiers, and the friendly

and supportive culture, as experienced by the researcher, provided the rationale for selecting this location for collecting data. The researcher is not aware of other locations that provide a set of characteristics that are as advantageous to the present study. Given that the research method of laddering interviews requires a pool of respondents that will provide insight into backcountry adventure experiences, this location was deemed to be both an appropriate source of informants and accommodating of the cost constraints for collecting data, as opposed to greater costs projected from collecting data in multiple areas or at a greater distance from the researcher's location.

The Teton Pass location represents a convenience sampling strategy. The researcher is a resident of Teton County, Wyoming, and given considerable familiarity with high-use backcountry access areas, is not familiar with a location that represents the advantages that the location of Teton Pass provides for collecting data. There were two important advantages that suggested collection of meaningful data and that reflected the limited means of the research budget. First, the concentration of a large number of backcountry adventure participants seemed to provide a large enough pool in order to reach the level of saturation needed in qualitative interviews (Silverman, 2000; Yin, 2003). Saturation is the point at which the gathering of additional data no longer provides new or a more informative understanding of the phenomenon (Guba & Lincoln, 1989; Ryan & Bernard, 2003). Saturation, as it relates to the present study, is discussed more in the upcoming instrument design section of this chapter. Secondly, the researcher's status as a resident provided for a greater level of acceptance and comfort in establishing a relationship with potential informants, indicating a greater likelihood of meaningful participation (Reynolds & Gutman, 1988; Stake, 1995). The high concentration of people

who participate in backcountry adventure, and the researcher's familiarity with, and membership in, the local community, suggested support for concluding that there was a reasonable likelihood of achieving a level of saturation during the data collection phase. The frequency distribution of the data was reasonably concentrated. No new data seemed to emerge after the first half to two thirds of the interviews were completed. Given these indications, the continuous monitoring of the interview data sheets, during the data collection period, suggested that the level of saturation level was reached.

Furthermore, the location of the Teton Pass staging area also provided an advantage to the research method. The collection of data as soon as possible after an experience is supported by means-end methods research (Huber, Beckmann & Herrmann, 2004) that has found that informant affect plays a role in means-end interview responses. Essentially, informants with a positive affect are more concise in expressing their responses and in demonstrating their understanding of the relationships between the attributes, consequences, and values that they ascribe to an experience. Shorter, more direct means-end chains are the result. For example the chain for a person with a positive affect might resemble (fresh snow–>better skiing–>sense of euphoria), while the corresponding chain for someone with a neutral or negative affect would be (fresh snow–>easier to ski–>better skiing–>feel competent–>gives me a euphoric feeling). Huber, Beckmann and Herrmann (2004) found that the neutral or negative affects could be overcome, but that this was a more lengthy process, resulting in longer means-end chains as informants worked through the process of expressing these cognitive structures. Positive affect can be determined by utilizing the recommended protocol (Reynolds & Gutman, 1988) of engaging potential informants in a conversation about their experience

for the day when approaching them about the possibility of participating in the interview. Potential informants who did not exhibit a positive affect, as estimated by pleasant demeanor and willingness to participate, were not engaged in the research.

Huber, Beckmann and Herrmann also concluded that there was no qualitative disadvantage to having a negative or neutral affect, it just took longer for informants with such affects to think through the elements of the means-end chain, from an initial attribute to a terminal value. While the means-end chains from informants with positive, neutral or negative affects were explored to completion, those with positive affects were able to express the chain in a more concise manner. These researchers point out that a shorter, more concise means-end chain is desirable for means-end research in that it limits the potential for interpretive bias that can occur when the initial informant statement is coded into content categories during the content analysis stage of means-end analysis. Regardless of the informant affect, it is the responsibility of the researcher conducting the interview to carry the process through in an attempt to complete each means-end chain (Reynolds & Gutman, 1988).

The implications of the Huber, Beckman and Herrmann (2004) findings for the present study were that on bad weather days, it would have been feasible from a data quality standpoint, to interview informants at selected indoor locations that provide relief from the elements and allowed the informants to better focus on responding to the interview. The potential for lack of a positive affect in such a scenario should not have disadvantage the data collection. There are several restaurants and coffee shops on either side of Teton Pass, in Victor, Idaho or Wilson, Wyoming. Any of these locations would have provided suitable options. Only one interview was conducted indoors, because the

informant suggested that this would be more comfortable while answering questions. The interviewer inquiries of the other 65 informants suggested that they had maintained their personal comfort levels and personal comfort had not influenced their responses. Of the 65 interviews conducted outdoors, 64 were in the parking lot at the summit of Teton Pass. One interview was conducted in the backcountry because the informant expressed interest in the study but would not be available for an interview at another time. The researcher had all of the interview forms at hand. All protocols of the study were maintained.

Thus, the preferred method (i.e. conducting interviews on site and immediately following a skiing experience) was used, and provided two advantages. There was a greater likelihood of getting more concise responses, thus reducing the possibility of misinterpretation of the data during the content analysis. A second potential advantage of an informant having a positive affect involved spending less time interviewing, reducing the potential for environmental factors (i.e. cold or wind) to serve as a detractors to the meaningfulness of responses given during the interview process. The location and corresponding potential for distraction during the interview reinforced the need for the researcher to remain diligent in following the established research protocols and suggested practices (Reynolds & Gutman, 1988).

Informants

Interviews were conducted with informants who had recently completed a backcountry adventure in the Teton Pass region of Wyoming. The majority of informants

were backcountry alpine or telemark skiers, or snowboarders; two were snowshoeing and one was cross-country skiing. All informants were over the age of 18 and consented to participate in an interview lasting 10 to 30 minutes. This population was chosen for several reasons. First, the researcher was familiar with, and interested in (Stake, 1995), this skiing community and the experience in which the informants participated. This familiarity and interest seemed to facilitate the interviews by promoting an essential level of comfort (Reynolds & Gutman, 1988). Second, given the conceptual framework provided by Johnson (2002), this location provided access to a population of informants who had potentially experienced all of the elements of backcountry adventure included in the framework. Third, there was abundant traffic of backcountry skiers (USDA, 2004), providing the opportunity to collect data from a substantial number (66) of informants (Silverman, 2000).

Interviews were conducted until saturation was reached. Saturation was the point at which the additional data being gathered were no longer furnishing new or more informative understanding of the phenomenon (Guba & Lincoln, 1989; Ryan & Bernard, 2003). Thus, predicting the level of saturation based on a specific number of informants was not possible. Furthermore, there is no discussion in the means-end literature about adequacy of sample size. It seems likely that this absence is reflective of the exploratory nature of means-end theory and analysis of which the basis is a goal of better understanding the relationships between the attributes, consequences, and values relevant to the cognitive processes that are associated with participating in an experience (Gutman, 1982; Reynolds & Gutman, 1988). Because of the researcher's familiarity with the skiing and snowboarding population (Stake, 1995) in the Teton Pass region and the

subsequent expectation that informants were reasonably available and readily forthcoming (Silverman, 2000), 66 data sets were collected in order to address the research goals.

There were several considerations in determining the goal of collecting interviews from a minimum of 60 informants. First, according to a personal communication with M. A. Goldenberg (September 27, 2006) there are many published means-end studies that have sample sizes of 30 informants. This observation suggested that a pool of 60 informants, twice the magnitude of 30, would provide meaningful insight to the research questions. Next, sample sizes greater than 30 can yield statistical significance (Hinkle, Wiersma & Jurs, 2003), a consideration for the content analysis phase of the technique. Finally, Reynolds and Gutman (1988) recognize that a pool of 50 to 60 informants provides the opportunity to address the research questions by evaluating several different solutions during the generation of the hierarchical value map, discussed below. It was determined that, through monitoring of the interview notes, the conditions representing saturation were reached at the completion of approximately 33 interviews. Data collection continued in order to achieve the minimum goal of 60, and for as long as was reasonably possible afterwards.

To summarize, 66 interviews were conducted during the data collection phase. Data were collected beyond a level of saturation reached at approximately 33 interviews. As an assurance, every attempt was made to collect data beyond the saturation point, resulting in another 33 interviews. Within the context of studying spirituality, the author believed that a larger number of interviews enhanced the ability for addressing both the research problem and further examining Johnson's (2002) model. The advantage was

recognized as the potential for more clearly defined relationships between the attributes,

consequences, and values that might emerge from the hierarchical value maps

(Goldenberg, McAvoy, Klenosky, 2005; Reynolds & Gutman, 1988). Finally, given the

reputation of the Teton Pass location in the popular ski press and broader skiing

community, there was the opportunity for achieving the goal set for the size of the

informant pool.

<div align="center">Instrument Design</div>

The instrument consisted of two parts, a demographic profile and the verbal

interview. A recruitment script was followed (Appendix A) and an information sheet

(Appendix B) was reviewed with informants prior to data collection.

<div align="center">*Demographics Profile*</div>

Demographic and antecedent data were collected using a one-page questionnaire

(Appendix C). Informants were asked to circle appropriate responses for the categories of

age range, ability level, mode of skiing (alpine, telemark or snowboard), and solo or

group experience, as well as for level of education, gender, preference for backcountry or

resort skiing and a basic socioeconomic profile of income, cultural/ethnic background.

Skier ability level used the North American scale of self-classification as beginner,

intermediate, advanced or expert/racer. There was the opportunity for respondents to fill

in an "other" option as needed. Respondents were also asked to fill in the blanks for the

categories of years of backcountry skiing experience, home ski area – a resort or

backcountry location, and state of residence or nationality, if not a U.S. resident. Informants were asked to supply a contact phone number if they were willing to answer any follow-up questions.

Laddering Interview

The second phase of data collection utilized the ladder interview. The informants were contacted as they return from their backcountry adventure to the parking lot staging area. This phase was conducted in accord with the interview protocols established through the expert panel and pilot study of methods. After completing the demographic information form, informants were asked a series of laddering questions in accordance with the laddering technique described in Chapter 2. It is noted here that the interview techniques recommended by Reynolds and Gutman (1988) were employed in order to optimize the potential for completing the recommended three means-end chains during the interview process. As such, informants were advised that the interview process may seem simplistic or frustrating and that it is the nature of the protocol to ask the questions in such a repetitive manner. The researcher apologized to informants and reminded them of this point if they seemed to start to become frustrated by the repetition. The first question was:

"Have you ever had a backcountry experience that you consider to be spiritual?"

When an informant asked the researcher what he meant by spiritual, the response was that the informant's definition was what the researcher was trying to understand and that the researcher was not in a position to pass judgment on what others considered to be spiritual.

Next the question: "Can you tell me about the experience?" was used to prompt recall for the informant in hopes of providing a more concise laddering chain. The researcher noted the attributes, consequences, and values expressed by the informant using the interview form in Appendix D.

The laddering interview continued with the researcher asking the informant why a particular attribute or consequence was important to him or her, using the format: "…and why is that (attribute, consequence, or value) important to you?" Termination of the interview occurred when informants indicated that they had exhausted their responses (Reynolds & Gutman, 1988). The researchers interpretation and understanding of the informant responses was confirmed in two ways. First, informant statements were repeated for clarification of the means-end relationships as a way to assure that the researcher had captured their meaning. Second, at the termination of the interview, the researcher clarified that what the informant meant by spiritual was the sum of the values that were recorded. At this point the researcher again invited the informant to confirm or amend what had been stated in this summary. Ultimately, the number of completed chains depended on the informant's personal perspective and his or her ability to express meaningful relationships (Gutman, 1982; Reynolds & Gutman, 1988).

Once completed, the researcher thanked the informant and offered her or him a Smith ® Snow Eraser ™ lens cleaning accessory as a small token of appreciation for his or her cooperation. These accessories consist of a sponge with a chamois cloth on one side and are used to wipe away excess snow and water in order to dry the lenses of glasses and goggles. The Snow Eraser ™ is made by the Smith ® Sport Optics company, and is considered to be a desirable, year-round utility in the outdoor enthusiast

community. The token of appreciation was deemed appropriate in this study because the local skiing culture has a social norm of reciprocity. All of the informants expressed appreciation for this consideration.

Trustworthiness of the interview data depended on the relationship established between the researcher and informant (Guba & Lincoln, 1989; Reynolds & Gutman, 1988). In an effort to assure trustworthiness of the data, the interviewer diligently made efforts to confirm the meaning of each informant response by following established protocols and recommended strategies (Reynolds & Gutman, 1988). Verification of the truth of informant responses was not possible and is recognized as a limitation of this research. The use of coders and inter-rater reliability measures during the content analysis phase provided support for the reliability, validity and generalizability of the findings (Ryan & Bernard, 2003). Content analysis served as a bridge between the qualitative interview data and the quantitative hierarchical value map. The hierarchical value map both provided for meaningful interpretation of the data and served to control for some level of inaccuracy, by virtue of the amalgamation of a number of different interview responses (Reynolds & Gutman, 1988).

Pilot Study

The questions and protocol were pilot tested based on discussions with a panel of experts (Appendix E) who advised on the phrasing of the initial interview questions and the structuring of protocols to insure that these addressed the interview techniques recommended by Reynolds and Gutman (1988). The pilot sample consisted of ten Trip Leaders for Indiana University Outdoor Adventures who lead adventure trips in

backcountry areas. Based on the pilot testing, the questions were refined and protocols

(Reynolds & Gutman, 1988) were enhanced to accommodate the potential sensitivity that

some informants may display to a line of questioning that is focused on a spiritual

experience of a personal nature. The intent was to maximize the informant's comfort

level in order to have her or him respond with honest and meaningful information

(Reynolds & Gutman, 1988). The expert panel, two researchers familiar with qualitative

interview techniques, one of who has experience dealing in personally sensitive research

topics, then reviewed the final questions and protocols to confirm that these would

support the intent of the interview data collection method.

Interview Protocol

An outline of the final questioning protocol follows:

1. Informants were approached in a casual manner, and asked about their skiing

    experience that day (Reynolds & Gutman, 1988). The researcher then

    followed the recruitment script approved by the Indiana University

    Institutional Review Board (appendix A).

2. After verbal consent, the researcher reviewed the Study Information Sheet

    (Appendix B) with the informant.

3. Informants were then asked to complete the demographic information form

    (Appendix C).

4. Further assurance of the confidentiality of their responses was given. After

    which, the repetitive nature of the method used for interviewing was explained

    (Reynolds & Gutman, 1988).

5. The first questions: "Have you ever had a backcountry experience that you considered to be spiritual?" "Would you tell me about it?" were asked. These questions served the purpose of establishing the researcher's level of interest in the informant's experience and in anchoring the context of the means-end chain (Reynolds & Gutman, 1988). At this point the researcher began recording data on the interview data collection form (Appendix D). If the informant was unable to describe the experience she or he was thanked and the interview was terminated.

6. Once the description of the experience was given, the laddering technique utilizing the "Why is that important to you?" question sequence was initiated (Reynolds & Gutman, 1988).

7. Recommended interview techniques were utilized in an attempt to try to extract three completed means-end chains from each informant (Reynolds & Gutman, 1988).

8. Informants were thanked for their participation and offered a Smith ® Snow Eraser ™ as a token of appreciation for their participation.

As the basis for the interviewing techniques, a complete set of interviewing strategies designed to guide informants to deeper levels of abstraction (Reynolds & Gutman, 1988) was used in conjunction with the finalized questions and protocols. This set of strategies (Reynolds & Gutman, 1988) consists of the following:

1. General considerations for the interview environment: such as a positioning of the interviewer as merely a facilitator and not a judge of the responses.

2. Eliciting distinctions for the factors that contribute to the experience.

3. Managing mental blocks and issues that are sensitive to the informant.

4. Employing techniques designed to enhance the quality of data collected.

Data Analysis

Once the interview data were collected, the interview data for each informant were content analyzed. Content analysis involved the researcher beginning to enter the chains into the LadderMap (Peffers & Gengler, 2003) software package. Emergent in this entry process was the coding of responses into categories as attribute, consequence or value. In addition, the responses were assigned to a content category that was reflected by a key word or key phrase. This step reduces the verbose nature of responses to their essential components in order to facilitate the hierarchical value mapping (HVM) process (Reynolds & Gutman, 1988; Goldenberg, McAvoy & Klenosky, 2005). For example, the statement "the beauty is amazing" was coded as a context and assigned to the content category "beauty". Key to producing meaningful means-end chains is the reliability of the coding process. It is noted here that informant statements were coded in the context of meaning derived from the overall response. Thus, the assigned content code reflects that meaning and not the literal interpretation of each statement (Gengler & Reynolds, 1995). Two important steps in the research technique supported the interpretation of meaning. First, the confirmation of informant statements during interviews assured researcher understanding of the intended meaning. Second, the inter-rater reliability process verified the repeatability of the researcher's initial interpretation during the content coding process.

After all of the responses were coded and entered into the LadderMap (Peffers & Gengler, 2003) software, the software package automates the process of creating the implication matrix (a full description of the process for developing the implication matrix is available in Reynolds & Gutman, 1988). As a result of the implication matrix, a hierarchical value map (HVM) is generated that graphically displays the prominent attributes, consequences, and values as well as the relative strength of the relationships between each of these elements (Goldenberg, McAvoy & Klenosky, 2005; Klenosky, et. al., 1993; Reynolds & Gutman, 1988).

In a hierarchical value map the attributes are represented as circles in white, have all lower case labels, and are typically at the bottom of the map. Consequences are represented as circles with a grayish appearance, have the first letter of the label capitalized, and are typically near the middle. Values are represented as blackened circles, have all upper case labels, and are typically near the top. The size of the circle is representative of the number of informant responses that included a given element in the means-end chain. Finally the thickness of the line connecting the elements represents the number of relative strength of the relationship between those elements: the chain.

From the analysis of HVMs emerges an understanding of how the attributes of an experience link to the resulting consequences and how these consequences then link to higher-level values. One example from the findings of the present study is how the attribute of the backcountry setting is related to the consequence of recognizing beauty and how this beauty leads to a transcendent state. Once generated, the hierarchical value map provides an illustration of the attribute, consequence, and value categories; the means-end chains. In addition, the strength of the relationship between each of these

content categories is signified by the thickness of the line that links the related categories (Klenosky, Templin & Troutman, 2001). In the present study, those lines that are thicker are termed as dominant links or associations, since it is difficult with the current findings to make other meaningful distinctions (Baker, Thompson & Engelken, 2004; Goldenberg, McAvoy and Klenosky, 2005). For instance, a dominant relationship between the attribute of the backcountry setting and the consequence of beauty would be indicated by a thick line representing that many informants had expressed this association. In comparison, a thin line between backcountry and focus reflects that, as many informants did not recognize the association.

Inter-rater Reliability

In maintaining the trustworthiness of the coding process, the reliability, validity, and generalizability of the findings were achieved by employing multiple coders (Appendix E) (Ryan & Bernard, 2003). The researcher initially coded the data during the process of entering it (Gengler & Reynolds, 1995) into the LadderMap (Peffers & Gengler, 2003) software package. A second coder reviewed the initial coding and made suggestions for refinements. Disagreements were negotiated to mutual satisfaction. Finally, a third coder reviewed the latest results and discrepancies were resolved by agreement between the initial two coders (Baker, Thompson & Engelken, 2004; Goldenberg, et. al., 2000; Goldenberg, McAvoy & Klenosky 2005). The inter-rater reliability procedures are discussed fully in the next chapter.

Cutoff Levels

The final phase of the data analysis was determining a cutoff level for including a content category in the HVM. LadderMap (Peffers & Gengler, 2003) allows the user to input a cutoff level for including a content category, based on the frequency with which informants express categories. The cutoff level represents the minimum number of responses required in order for a content category to be included in the map (Gengler & Reynolds, 1995). The cutoff level emerges as a means for generating the most informative set of mean-end chains (Gengler & Reynolds, 1995; Baker, Thompson & Engelken, 2004), based on some criteria for making a meaningful contribution to the problem at hand (Reynolds & Gutman, 1988). Cutoff levels associated with the present research are discussed in Chapter 4.

Chapter 4

ANALYSIS OF THE DATA

Data were collected in two forms. After the researcher reviewed the study

information sheet (Appendix B) with an informant and he or she consented to participate

in the interview, a demographic information sheet (Appendix C) was completed. No one

refused to participate after the information sheet was reviewed with him or her.

Completion of the demographic information sheet took between one and two minutes for

each informant. Once the researcher collected the demographic information, a means-end

laddering interview was conducted per the protocol outlined in Chapter 3. These

interviews lasted between 10 and 30 minutes, with many lasting between 10 and 15

minutes. This chapter includes discussion of the interview data in two major sections, the

descriptive findings and the means-end analysis.

Descriptive Findings

A total of 66 interviews provided the data for this study. Interviews were

conducted on 14 different days between 17 December 2006 and 07 January 2007. During

that time period data were collected primarily on weekdays. Weekends and holidays were

not conducive to conducting interviews because the high amount of user activities on

those days reduced the individuals' willingness to participate in the study. On weekends

and holidays, potential informants seemed to be more likely to be using the backcountry

in larger groups, because of weekday work schedules. During these times, these

informants expressed that they had other time commitments and would prefer to participate when they could give the interviews full attention. These potential informants were also being sensitive to the high demand for parking spaces at these peak use times, and thus wanted to vacate the parking lot so that other users could access the backcountry. Weather conditions between 04 and 06 January prohibited data collection. Of the 66 interviews conducted, 63 were included in the final analysis. Three interviews were removed from the data for various reasons. In one case, a wedding for which access for parking was important, was removed because the situation described could not conclusively be considered by the researcher to be a backcountry setting that required skill and effort to access, as per the definition established for this study. The other two interviews were removed because informants concluded by expressing that their responses reflected their interpretation of what others meant, however they themselves did not consider backcountry experiences to be spiritual. Any questions raised about the intended meaning of an informant, by the researcher or the two content verification coders, were resolved using the original interview notes. It was not necessary to conduct any follow-up telephone interviews for the purposes of clarification of the initial responses.

Demographics

The demographic descriptions are related to the 63 informants whose interviews were included in the study; these included twenty-one (33%) women and 42 men (67%). Cultural and ethnic background was not a factor in data analysis, as 62 (98%) of the informants reported being European/White. One informant identified as Latin/South

American.

Table 4.1 presents descriptive statistics for age, level of education, and annual income of the informants. Table 4.2 provides the descriptive statistics of the type of skiing (i.e. alpine, telemark, snowboarding) on the day of the interview, and the role of other people in relation to spiritual backcountry experience. Table 4.3 reports both the activity referenced in relation to the spiritual experience described and the self-reported level of skill for that activity. Table 4.4 reports the years of backcountry experience of the informants.

The data in Table 4.1 reveal a population of which the majority was younger than age 36 (72%) and well educated, having a bachelor's degree or more education (75%). The income profile illustrates that the largest single group (29%) earned less than $20,000 per year, with more than half of the informants (54%) earning between $20,000 and $50,000 per year.

Table 4.1 *Descriptive statistics of characteristics of informant population.*

Demographic	Frequency (*N*=63)	Percentage (100%[a])
Age Range		
18 – 25	13	21
26 – 35	32	51
36 – 45	11	17
46 – 64	07	12
Education		
High School	01	02
Some college	11	17
Associate or trade school	04	06
Bachelors	37	59
Masters	08	13
More	02	03
Annual Income		
< $20,000	18	29
$20,000 – $35,000	17	27
$36,000 – $50,000	17	27
$51,000 – $100,00	08	13
>$100,000	02	03

[a] Error in percentage totals due to rounding.

Backcountry Activity and Experience

The descriptors of the informant profiles in Table 4.2 show that alpine (41%) and telemark (29%) skiing were dominant (70% in total) in the population. Those who preferred being alone or with one partner, because a partner was required for safety and not because of the interpersonal aspect, represented half of the sample (50%) and less than one third (30%) reported spiritual experience occurring only when they were with a group.

Table 4.2 *Descriptive statistics of profiles of informant population.*

Demographic	Frequency (*N*=63)	Percentage (100%[a])
Type of activity on day of interview		
Alpine skiing	26	41
Telemark skiing	18	29
Snowboarding	16	25
Snowshoeing	02	03
Cross country skiing	01	02
Presence of others during spiritual experience		
Alone	23	37
With a partner	08	13
Group	19	30
Alone or with group	13	21

———

[a] Error in percentage totals due to rounding.

Table 4.3 presents informant skill level and type of activity referenced in relation to spiritual experience. The number of advanced (51%) and expert skiers (45%) represented the vast majority of ability levels (96% in total). Examination of the activity type for spiritual experience reflects the activity in which informants reported having experiences that they describe as spiritual. The largest single category is the all backcountry category (41%), the *all* group. Informants included in the all group expressed that all of the backcountry activities in which they participated provided them with avenues for spiritual experience. The combination of all activities in which some form of skiing was specifically named, represents a larger grouping (52% in total). The combination of mode of downhill skiing (i.e. alpine, telemark, or snowboarding) and the recognition that skiing is included in the inclusive all group (i.e. all backcountry

activities) reflects that nearly all informants (89%) reported spiritual experience related to some form of downhill skiing. Those reports of "spirituality" involving settings that did not include some form of skiing represent a small group (*n*=6). This small portion (10%) did not provide a large enough group on which to conduct meaningful analysis. Other activities not listed in Table 4.3, but also expressed in reference to the all group, included surfing, floating a river, being in avalanches, and mountain biking.

Table 4.3 *Skill level and type of activity referenced in relation to spiritual experience.*

Demographic	Frequency (N=63)	Percentage (100%[a])
Reported skill level		
Beginner	01	02
Intermediate	02	03
Advanced	32	51
Expert	28	45
Type of activity for spiritual experience		
All backcountry activities	25	40
Alpine skiing	18	29
Telemark skiing	03	05
Snowboarding	03	05
Skiing & backpacking	01	02
Skiing & boating (kayak & raft)	02	03
Skiing & climbing	02	03
Skiing & hiking	02	03
Skiing & running	01	02
Backpacking	02	03
Backpacking, hunting & fishing	01	02
Hiking & climbing	01	02
Rock climbing	02	03

[a] Error in percentage totals due to rounding.

The number of years of experience (Table 4.4) that each informant had in the backcountry represents a range from two to more than 30 years. Approximately one third (35%) had between two and seven years experience, one third (35%) had between eight and 14 years experience and one third (30%) had more than 14 years of experience.

Table 4.4 *Descriptive statistics for years of backcountry experience.*

Years of backcountry experience	Frequency (*N*=63)	Percentage (100%[a])
2	1	02
3	2	03
4	4	06
5	4	06
6	4	06
7	7	11
8	3	05
9	3	05
10	8	13
12	4	06
13	3	05
14	1	02
15	5	08
18	1	02
19	1	02
20	5	08
23	1	02
25	1	02
28	1	02
30	3	05
> 30	1	02

[a] Error in percentage totals due to rounding.

Means-End Interview Data

After completing the demographic information sheet, informants were asked if they would describe a backcountry experience that they considered to be spiritual. Notes were taken (see Appendix D, data collection form) and during this process the researcher

made preliminary categorizations of each concept as either an attribute, consequence, or value (ACV). Recall the three ACV elements: attributes, (i.e. the specific characteristics of the activity or setting); consequences, (i.e. the benefits or costs that result from an action); and values, (i.e. highly abstract outcomes that are experienced as desired end states). Attributes lead to consequences that, in turn, are ascribed value by the informant.

Each attribute, consequence, or value concept was explored using a follow-up question from the researcher that probed why each ACV concept was important to the informant. Confirmation of the researcher's interpretation of informant statements involved the researcher restating what had been written and asking informants to confirm or alter what the researcher repeated back to them. At the conclusion of each interview the researcher re-confirmed the informant's meaning of spiritual by stating all of the values that had been expressed by the informant. Informants were then asked to confirm or alter to this summary. Environmental conditions at the time the research notes were made adversely affected penmanship in some cases (i.e. cold hands). At the end of each day, the researcher reviewed the interview notes and enhanced the penmanship of any notes that might be hard to read in the future when the faculties of situation specific recall had diminished.

Means-End Content Codes

Table 4.5 lists the attribute, consequence and value categories and sub-categories identified during the content coding. Attribute, consequence, and value statements identified during the interviews were assigned content codes (Table 4.6) that emerged during the coding process, discussed later in this chapter. Once the codes were

established, their frequency of occurrence was calculated. The descriptive statistics were calculated for number of ladders provided by each informant (Table 4.7).

The software package LadderMap 5.4 (Peffers & Gengler, 2003) was used for data analysis. The software facilitates the process of content coding and data analysis. Initially, the researcher entered informant statements into LadderMap and coded the statement as an attribute, consequence, or value (ACV), per the interview notes. Next, each ACV concept was assigned a synonym that coded that statement into a category for the content analysis. Once the coding verification process was completed, LadderMap software calculated the frequency with which each content category was expressed in relation to the other ACV concepts. These calculations of frequency are complied in what is known as an implication matrix. An implication matrix is a table of the frequency of relationships between ACV concepts. Finally, from the implication matrix, LadderMap generates a graphical illustration of the frequency with which ACV concepts were expressed and the frequency with which each attribute, consequence, or value concept was expressed in relation to another ACV concept. This graphical illustration is known as a hierarchical value map (HVM). A HVM illustrates the relative frequency of expression of an ACV concept through the size of the representative circle. The thickness of the line connecting those two circles illustrates the relative frequency with which the ACV concepts were expressed in relation to one another.

Demographic and interview data for each informant were entered into the program. Interview data were identified as either being an attribute, consequence, or value and assigned a synonym as the content code. A total of 23 content coding categories emerged from the data. Of the 23 ACV categories, there were six attribute

categories, nine consequence categories, and eight value categories. As the interview data were entered, content codes were assigned to each statement of attribute, consequence, or value. Content codes for a given category emerged as either key words from a statement or as synonyms that reflected the common theme of a statement. As discussed in Chapter 3, this step reduced the verbose nature of some responses to their essential components in order to facilitate the hierarchical value mapping (HVM) process.

Table 4.5 contains a list of content code categories and sub categories. During the content coding process, statements were assigned to content categories that best reflected the essence of the statement. Some of these categories were later combined with another category that reflected a similar meaning. This combination process reflects creation of content categories that were not so broad as to lose meaning or so narrow as to produce meaningless graphical illustrations in the hierarchical value maps (Gengler & Reynolds, 1995). Categories used a more precise synonym were combined into a category that used a more general synonym. These categories with more precise synonyms became sub-categories. This process of combining categories was initiated when it was recognized that there was a logical and meaningful relationship that preserved overall meaning on a scale that was useful for interpreting the data. Logical fit was determined based on characteristics of the category. These combinations were verified during the inter-rater reliability process discussed later in this chapter.

For example, in the current study the attribute *nature* is a sub-category of backcountry because nature represents more specific attributes of the natural setting (i.e. powder snow or beautiful sunrise) while *backcountry* represents the attributes of the natural setting in a more general way (i.e. "being in the mountains"). Nature was also

deemed to be a sub-category because of references, by several informants, to the nature category in association with the more general backcountry category. Combining nature with backcountry represents the merging of two similar categories rather than the removal of a meaningful category. The end result of sub-categorization was a preservation of the meaning while reducing clutter in order to allow for a clearer interpretation of the hierarchical value maps.

Table 4.6 provides a description for each content category and sub-category. The category labels are synonyms for the content categories and were developed to reflect the informant interview data. These categories were developed using the Definitions found in Chapter 1, the Conceptual Frameworks discussed in Chapter 2, and *The Random House Dictionary* (Stein and Su, 1980). Content category labels were refined and verified during the inter-rater reliability verification process. Essentially, during this process each of the two raters provided feedback on the synonyms, making suggestions and ultimately endorsing the final content code categories.

In sum, similar categories were combined as discussed previously in this section. Once a category was combined with another and became a subcategory, that subcategory was no longer represented in the data analysis. For example, nature was included as a subcategory of backcountry, and therefore was represented in the backcountry category. Subsequently, a nature category does not appear in the implication matrix or in the data analysis related to an implication matrix (i.e. hierarchical value maps).

Table 4.5 *Content codes and sub-categories that emerged during content coding.*

Category	Sub-category [a]
Attributes	
Adventure	
Backcountry	nature
Exercise	
Skill	
Social	
Solitude	removed
	alone
Consequences	
Beauty	
Challenge	
Competent	learn
Enjoy	
Focus	
Health	
Reflect	
Share	
Tranquil	
Values	
Appreciation	
At Peace	
Awareness	clarity
Confident	
Connection	
Fulfillment	
Restore	
Transcend	euphoric

[a] Sub-categories were merged into categories and do not appear in data analysis.

Table 4.6 *Descriptions of content categories and sub-categories.*

Attributes   (Sub-categories are indented under the respective category)

Adventure – mental and physical challenges involving risk.
Backcountry – unspoiled, remote, and natural setting that provides inspiration.
        Nature – quiet, sunsets, snow and other specific attributes of the backcountry.
Exercise – mental and physical exertion.
Skill – using a skill or ability, i.e. skiing.
Social – social interaction.
Solitude – being solitary, secluded.
        Removed – away from the distractions and complications of modern life.
        Alone – not social, solo.

Consequences   (Sub-categories are indented under the respective category)

Beauty – beautiful, majestic, aesthetic pleasure.
Challenge – a vehicle to push self, exertion, hard work.
Competent – the ability to meet challenges, determine for self.
        Learn – to acquire knowledge or skill by experience, self-improve.
Enjoy – re-affirm joy, happy, satisfying,
Focus – pay attention, focus on the moment, observe, meditative rhythm, concentration.
Health – mental and physical wellbeing.
Reflect – introspection.
Share – responsible for others, cooperation and safety, bonding, fun.
Tranquil – peace and quiet, away from people, away from rat-race.

Values   (Sub-categories are indented under the respective category)

Appreciation – intensely grateful and thankful, recognition of aesthetic quality.
At Peace – calming and peaceful.
Awareness – self-awareness, new perspective, in full senses.
        Clarity – clear mind, greater life realization.
Confident – self-reliant, self-confident, sense of autonomy.
Connection – connected to others and nature, relationship.
Fulfillment – become true self, happy to be alive, feel alive, accomplishment.
Restore – relaxed, relieve stress, feel renewed, cleansed, grounding and balanced.
Transcend – one with the universe, connected with all things, state of no-mind,
                transcendent experience, insignificant in relation to immensity.
        Euphoric – fully experiencing, euphoria, bliss, awe, fuel for the soul.

Frequency of Content Codes

Table 4.7 provides the frequency and percentage of frequency with which all
informants expressed a given content category. Subcategories are included in the
frequency for the relevant category. These frequencies govern the interpretation of data
discussed later in this chapter (see Implication Matrix and Hierarchical Value Maps).

Table 4.7 *Frequency of expression for the final content code categories.*

Attributes	Frequency of outcomes listed ($N = 540$)	Percentage of outcomes listed (100%)[a]
Adventure	23	04
Backcountry	71	13
Exercise	22	04
Skill	17	03
Social	19	04
Solitude	19	04
Consequences		
Beauty	21	04
Challenge	21	04
Competent	19	04
Enjoy	20	04
Focus	26	05
Health	15	03
Reflect	21	04
Share	20	04
Tranquil	21	04
Values		
Appreciation	15	03
At peace	14	03
Awareness	33	06
Confident	08	01
Connection	33	06
Fulfillment	18	03
Restore	16	03
Transcend	48	09

[a] Error in percentage totals due to rounding.

In preparation for final analysis, data from three of the 66 informants were removed from the study because the responses did not sufficiently address the research question, as was explained previously in the Descriptive Findings section.

Ladders Completed by Informants

Ladders consist of linked concepts that are differentiated as an attribute, consequence, or value (ACV). The 63 interviews included in the final data consisted of 168 different ladders (Table 4.8) that were constructed from a total of 511 concept references, a mean of 3.04 concepts per ladder. The majority (75%) of informants were able to supply three complete ladders consisting of at least one attribute, consequence and value. Four of the informants were very concise in describing what spiritual meant to them, providing only one ladder each. Ultimately, the number of completed ACV chains depends on the informant's personal perspective and their ability to express meaningful relationships; a higher or lower number of chains by an informant is no more or less desirable (Gutman, 1982; Reynolds & Gutman, 1988).

Table 4.8 *Number of ladders completed by informants.*

Number of ladders completed by an individual informant	Informants ($N = 63$)	Ladders ($n = 168$)	Percentage (100%)
1	04	04	02
2	15	30	18
3	42	126	75
4	02	08	05

Inter-rater reliability

The researcher performed the initial coding of interview data. A second coder then verified the coding. The second coder disputed the content coding of three concepts. The dispute was settled through negotiation between the coder and the researcher. Subsequently, a third coder reviewed the negotiated data and two of the 540 content category assignments were disputed. Following the research protocols prescribed in Chapter 3, these disputes by the third coder were negotiated between the researcher and the second coder. Inter-rater reliability was calculated as 99.22% agreement on the content codes assigned to concepts. Inter-rater reliability calculations are reported in Table 4.9.

Table 4.9 *Percentage of agreement as calculation of inter-rater reliability.*

	Number of Coded Statements	First Coder	Second Coder	Percentage Agreement
First Round	540			
Difference		3		
Agreement		537		99.44
Second Round	540			
Difference			2	
Agreement			538	99.63
Final Data	511			
Difference		2	2	
Agreement	507			99.22

Means-End Associations

Upon completion of the inter-rater reliability verification process, an implication matrix was generated (Table 4.10) using LadderMap 5.4 (Peffers & Gengler, 2003) software. An implication matrix provides a summary of the number of times informants expressed an attribute, consequence, or value (ACV) in association with another attribute, consequence, or value. The matrix provides a summary of both direct and indirect linkages between attributes, consequences, and values. Direct relationships represent a pathway between two concepts. Indirect relationships represent a pathway between two concepts that are related indirectly via one or more intermediary concept (Reynolds & Gutman, 1988), see the Means-end Analysis section in Chapter 2 for a more complete discussion of direct and indirect relationships. Indirect paths are implicit in the direct chain of associations illustrated on a hierarchical value maps (Gengler & Reynolds, 1995).

Implication matrices are the basis for the HVMs. Each hierarchical value map conveys the connection between various ACV concepts and represents relationships in two ways. First the relative size of the circle for the ACV concept represents the number of informants who expressed that concept. Secondly, the thickness of a line connecting two ACV concepts represents the frequency with which informants associated those concepts, the thicker the line between two concepts, the stronger the association between them (Klenosky et. al., 1998). According to Reynolds & Gutman (1988), the implication matrix represents "the ability of the map to express the aggregate relationships (p. 21)" of the ACV concepts.

Table 4.10. *Implication Matrix of frequency of association between attribute, consequence and value concepts.*

From: \ To:	N[a]	A1	A2	A3	A4	A5	A6	C1	C2	C3	C4	C5	C6	C7	C8	C9	V1	V2	V3	V4	V5	V6	V7	V8
	63																							
Attributes																								
A1 Backcountry	60							7	13	19	5	10	3	10	5	1	27	14	12	5	5	7	9	
A2 Adventure	22			1				9	1		5	3		3	3	2	5	2	8	3	1	1	1	4
A3 Exercise	22							2	1		5	1			4	12	3	1	5	4	5	1	1	2
A4 Social	19							1				1		3		1	2	11		2	1	2	2	
A5 Solitude	18							2	5		3	5	14	1	2		2	2	5	2	3	4	2	2
A6 Skill	16							5	1	1	3		3	2	5		7	3	2	3	1			
Consequences																								
C1 Focus	24										1	1		1			11	2	5	2	3	2	1	2
C2 Reflect	19										1			1			1	5	9	1	2	1	4	1
C3 Beauty	20				1				1						1		10	5	2	2	2	3	1	
C4 Challenge	15				1	1		2				1					8	3	2	2	3	1		2
C5 Tranquil	20					1			3				1		1		4	4	6	1	3	1	3	1
C6 Share	17										1						5	11		2		2	1	
C7 Enjoy	16	1										1	1				5	3	6	2	1	3	1	
C8 Competent	14										2		1	1		1	2	3	5	4	1	1	2	
C9 Health	14													1	1		1	1	4	4	2	1		2
Values																								
V1 Transcend	40	1								1									1			2		
V2 Connection	27							3							1				1			1		
V3 Awareness	29					1		1	1					2									1	
V4 Fulfillment	18							1									1							
V5 Restore	15										1													1
V6 Appreciation	15																							
V7 At Peace	14										1						1	1	1					
V8 Confident	8																			1				

[a]N refers to the number of informants expressing each content category.

The process of generating a hierarchical value map (HVM) from an implication matrix requires that a cutoff level be established. The cutoff level for a given HVM represents the minimum number of informants who expressed one attribute, consequence, or value (ACV) concept in relation to another ACV concept. The role of a cutoff level is to remove extraneous information, such as ACV concepts that are associated infrequently across the entire informant pool. The role of the cutoff level also serves in managing the aesthetic of the HVM (Gengler & Reynolds, 1995). In practice there are two ways to approach the issue of determining a cutoff level. The first is based on the percentage of the sample size, typically 5% (Reynolds & Gutman, 1988). The other is to use a cutoff level that will represent at least 70% of the relationships on the map (Gengler & Reynolds, 1995). Cutoff levels used in the present study are discussed next.

Table 4.11 provides a summary of cutoff levels in relation to the percentage of association represented for each of the groupings for which analysis was completed. LadderMap software (Peffers & Gengler, 2003) provides these options each time an implication matrix is created. A different implication matrix was created for each HVM that was generated during data analysis. The choice of cutoff level depended on the goal of the analysis and was approached in two ways.

First, in order to conduct the data analysis, 18 different HVMs were created using the cutoff levels in Table 4.11. The use of different cutoff levels represents the need to preserve validity while still providing a mapping that conveys some meaning (Gengler & Reynolds, 1995). While many of the HVMs produced in the present analysis appear cluttered, the focus of this research was not to interpret the minutia of linkages between attribute, consequence, and value (ACV) concepts (Gutman, 1982; Reynolds & Gutman,

1988). Rather, the goal was to capture both the overall meaning from the values and the dominant relationships between the concepts. Given this goal of understanding the data on a broader basis, the comparison between subgroups and across all informants was completed using the lowest cutoff level that would thus provide the broadest perspective.

Second, the choice of a cutoff level that is representative of both a percentage of the sample and a number of associations is consistent with means-end theory and analysis (Gutman, 1982, Reynolds & Gutman, 1988). The practice for the present study was to choose the lowest possible cutoff level for all analysis, with the exception of the analysis for the second research question. This difference is related to the purpose of the analysis and is discussed in greater detail when that analysis is addressed later in this chapter.

The cutoff level for the total sample in this study was 3, representing 77% of the attribute, consequence and value (ACV) concept associations. Thus, in examining Figure 4.1, all of the links shown between ACV concepts were expressed by at least three informants. This cutoff level falls within the range of both recommendations for establishing a cutoff level (Reynolds & Gutman, 1988; Gengler & Reynolds, 1995), with a sample size of 63, a cutoff level of 3 represents 5%. This level of 3, representing 77% of associations, exceeds the recommended inclusion of at least 70% of associations (Reynolds & Gutman, 1988; Gengler & Reynolds, 1995). All but one of the cutoff levels used for analysis in the present research meet both of these criteria (see percentage numbers in bold, Table 4.11). Figure 4.2 is the exception, for which the choice of cutoff level is discussed in detail later in this chapter.

Groupings listed in Table 4.11 reflect the research questions. The groupings represent age, gender, mode of skiing on the day of the interview, years of backcountry

experience, the activity that provided the informant with a spiritual experience, and the informant's level of skill in that backcountry activity. The groupings of age, gender, and years of backcountry experience each account for the total sample (N=63). The grouping for mode of skiing on the day of the interview excludes two informants who were snowshoeing and one who was cross-country skiing. The exclusion from analysis was made because the number (n=3) of informants engaged in these two modes of activity was deemed not large enough to provide for any meaningful analysis of difference or similarity, in comparison to the larger groupings and overall sample. Based on similar reasoning, one beginner and two intermediate backcountry users were also not included in the analysis of skill level groups.

The groupings for spiritual backcountry activity were based on three categories; the all group, those who identified all backcountry activities as providing spiritual backcountry experiences; the *skier* group, those who expressed some form of skiing (i.e. alpine, telemark, or snowboarding) as providing spiritual backcountry experiences; and the *skier + 1* group, those who expressed both some form of skiing and one other activity as providing spiritual backcountry experiences. These distinctions were made based on frequency and distinction from other phases of analysis in the present study. Twenty-five informants made up the all group. Twenty-four informants made up the skier group. Conceptually, because other analysis in the present study examined the differences between alpine, telemark and snowboarder skiers, those three were combined for this phase of the analysis. Because only eight informants identified a form of skiing and one other specific activity as being avenues to spiritual experience, these eight were combined with the skier group to form the skier + 1 group. This skier + 1 group was

analyzed in order to see if there were any differences in ACV chains as result of an additional activity. The group of eight was deemed too small to provide for any meaningful analysis of difference or similarity, in comparison to the larger groupings and overall sample.

Interpretation of the hierarchical value maps (HVMs) was facilitated by using Table 4.12, a chart of the frequency with which each attribute, consequence, or value (ACV) concept was associated both overall and for each sub grouping. Table 4.13 mirrors Table 4.12 but provides percentages reflecting the expression of each ACV concept in relation to the percentage of total expression for a given grouping. These tables provided data for a perspective that facilitated identification of differences in the face of the complicated aesthetic of the HVMs.

Table 4.11. *Percent of Associations by Cutoff Level, cutoff values established using LadderMap software.*

Groupings:	Frequency (N = 63)	1	2	3	4	6
		LadderMap Cutoff Levels				
Figure 4.1. All Associations – cutoff 3	63	•	•	77		
Figure 4.2. All Associations – cutoff 6	63				•	40
Age:						
Figure 4.3. Age Range 1 (18–25)	13	100	55	25	•	•
Figure 4.4. Age Range 2 (26–35)	32	•	80	•	38	26
Figure 4.5. Age Range 3 (36–65)	18 63	100	47	18	•	•
Gender:						
Figure 4.6. Female	21	100	71	34	•	•
Figure 4.7. Male	42 63	•	85	•	52	33
Mode of Skiing, day of interview:						
Figure 4.8. Alpine	26	•	78	•	43	14
Figure 4.9 Telemark	18	100	66	44	•	•
Figure 4.10. Snowboard	16 60[b]	100	59	35	•	•
Years of Backcountry Experience:						
Figure 4.11. Experience Range 1 (2 – 7)	22	100	68	46	•	•
Figure 4.12. Experience Range 2 (8 – 14)	22	100	62	36	•	•
Figure 4.13. Experience Range 3 (>14)	19 63	100	69	49	•	•
Spiritual Backcountry Activity:						
Figure 4.14. All	25	•	77	•	40	17
Figure 4.15. Ski (any form)	24	•	68	•	35	26
Figure 4.16. Ski & one other	32 81[c]	•	70	•	39	25
Backcountry Skill Level:						
Figure 4.17. Advanced	32	•	79	•	37	39
Figure 4.18. Expert	28 60[d]	100	72	50	40	•

• Denotes a value not calculated by LadderMap (Peffers & Gengler, 2003)software package.
[a] Cutoff levels used in analysis are represented by percentages in bold.
[b] Does not include two cross-country skiers and one on snowshoes.
[c] Does not include six non-skiers. The skier + 1 group consists of 24 skiers plus 8 who expressed a form of skiing and one other specific activity.
[d] Does not include one beginner and two intermediate backcountry users.

Table 4.12. *Frequency of direct linkages by grouping, for hierarchical value maps and the implication matrix.*

Content Category	All (N)	Age Range			Gender		Activity on day of interview		
		(18-25)	(26-35)	(36-56)	Female	Male	Alpine Ski	Telemark	Snowboard
Group size (*n*)	63	13	32	18	21	42	26	18	16
Attributes									
Backcountry	60	13	31	16	19	41	25	18	14
Adventure	22	3	11	8	6	16	11	6	5
Exercise	22	5	11	6	6	16	8	7	7
Social	19	4	12	3	6	13	6	7	4
Solitude	18	3	10	5	5	13	8	3	6
Skill	16	4	9	3	6	10	8	4	3
Consequences									
Focus	24	5	11	8	9	15	11	6	5
Reflect	19	4	11	4	8	11	8	6	5
Beauty	20	3	13	4	6	14	11	5	4
Challenge	15	4	7	4	3	12	7	3	5
Tranquil	20	4	10	6	8	12	8	6	5
Share	17	3	12	2	6	11	6	6	3
Enjoy	16	2	7	7	4	12	4	5	6
Competent	14	3	9	2	6	8	9	2	3
Health	14	4	9	1	5	9	5	4	5
Values									
Transcend	40	8	19	13	10	30	16	12	9
Connection	27	6	16	5	9	18	6	12	8
Awareness	29	6	17	6	9	20	11	8	9
Fulfillment	18	4	10	4	6	12	11	8	3
Restore	15	4	8	3	6	9	7	3	5
Appreciation	15	1	10	4	4	11	8	11	2
At Peace	14	3	8	3	6	8	6	2	5
Confident	8	3	5	0	2	6	2	0	6

Table 4.12 continued. *Frequency of direct linkages by grouping, for hierarchical value maps and the implication matrix.*

Content Category	All (N)	Years of Backcountry Experience			Spiritual Backcountry Activity			Backcountry Skill Level	
		(2–7)	(8–14)	(>14)	"All"	"Skier"	"Skier + 1"	Advanced	Expert
Group size (*n*)	63	19	21	23	25	24	32	32	28
Attributes									
Backcountry	60	22	20	18	25	22	30	31	26
Adventure	22	5	9	8	8	11	12	11	11
Exercise	22	10	5	7	8	9	12	12	8
Social	19	4	7	8	10	9	9	9	9
Solitude	18	7	7	4	5	6	9	6	11
Skill	16	8	5	3	6	4	7	8	7
Consequences									
Focus	24	9	7	8	8	11	13	11	11
Reflect	19	7	5	7	3	13	13	9	9
Beauty	20	8	5	7	6	7	12	10	9
Challenge	15	5	5	5	8	4	6	9	6
Tranquil	20	6	9	5	11	4	8	10	10
Share	17	5	7	5	11	6	6	10	6
Enjoy	16	3	8	5	7	5	6	4	12
Competent	14	7	4	3	3	5	6	7	5
Health	14	7	3	4	6	5	7	8	4
Values									
Transcend	40	13	13	14	17	13	19	22	17
Connection	27	12	8	7	11	12	14	15	12
Awareness	29	8	8	13	12	10	14	11	16
Fulfillment	18	8	8	2	5	8	9	9	7
Restore	15	5	7	3	9	5	6	10	4
Appreciation	15	8	3	4	4	8	10	8	6
At Peace	14	8	3	3	2	7	10	8	6
Confident	8	4	4	0	4	0	3	4	4

Table 4.13. *Percentage of direct linkages by grouping, for hierarchical value maps and the implication matrix.*

Content Category	All	Age Range			Gender		Activity on day of interview		
		(18-25)	(26-35)	(36-56)	Female	Male	Alpine Ski	Telemark	Snowboard
Group size (*n*)	63	13	32	18	21	42	26	18	16
					Percent				
Attributes									
Backcountry	95	100	97	89	90	98	96	100	88
Adventure	35	23	34	44	29	38	42	33	31
Exercise	35	38	34	33	29	38	31	39	44
Social	30	31	38	17	29	31	23	39	25
Solitude	28	23	31	28	24	31	31	17	38
Skill	25	31	28	17	29	24	31	22	19
Consequences									
Focus	38	38	34	44	43	36	42	33	31
Reflect	30	31	34	22	38	36	31	33	31
Beauty	32	23	41	22	29	33	42	28	25
Challenge	24	31	22	22	14	29	27	17	31
Tranquil	32	31	31	33	38	29	31	33	31
Share	27	23	38	11	29	26	23	33	19
Enjoy	25	15	22	39	19	29	15	28	38
Competent	22	23	28	11	29	19	35	11	19
Health	22	23	28	6	24	21	19	25	31
Values									
Transcend	63	62	59	72	48	71	62	67	56
Connection	43	46	50	28	43	43	23	67	50
Awareness	46	46	53	33	43	48	42	44	56
Fulfillment	29	31	31	22	29	29	42	44	19
Restore	24	31	25	17	29	21	27	17	31
Appreciation	24	8	31	22	19	26	31	61	13
At Peace	22	23	25	17	29	19	23	11	31
Confident	13	23	16	0	10	14	8	0	38

Table 4.13 continued. *Percentage of direct linkages by grouping, for hierarchical value maps and the implication matrix.*

Content Category	Years of Backcountry Experience				Spiritual Backcountry Activity			Backcountry Skill Level	
	All (*N*)	(2–7)	(8–14)	(>14)	"All"	"Skier"	"Skier + 1"	Advanced	Expert
Group size (*n*)	63	19	21	23	25	24	32	32	28
					Percent				
Attributes									
Backcountry	95	95	95	96	100	92	94	97	93
Adventure	35	42	43	22	32	46	38	34	39
Exercise	35	37	24	43	32	38	38	38	29
Social	30	42	33	17	40	38	28	28	32
Solitude	29	21	33	30	20	25	28	19	39
Skill	25	16	24	25	24	17	22	25	25
Consequences									
Focus	38	42	33	39	32	46	41	34	39
Reflect	30	37	24	30	12	54	41	28	32
Beauty	32	37	24	35	24	29	38	31	32
Challenge	24	26	24	22	32	17	19	28	21
Tranquil	32	26	43	26	44	17	25	31	36
Share	27	26	33	22	44	25	19	31	21
Enjoy	25	26	38	13	28	21	19	13	43
Competent	22	16	19	30	12	21	19	22	18
Health	22	21	14	30	24	21	22	25	14
Values									
Transcend	63	74	62	57	68	54	59	69	61
Connection	43	37	38	52	44	50	44	47	43
Awareness	46	68	38	35	48	42	44	34	57
Fulfillment	29	11	38	35	20	33	28	28	25
Restore	24	16	33	22	36	25	19	31	14
Appreciation	24	21	14	35	16	33	31	25	21
At Peace	22	16	14	35	8	29	31	25	21
Confident	13	0	19	17	16	0	9	13	14

Graphical Associations

The hierarchical value maps (HVMs) that resulted from the implication matrix data, provide a graphical representation of the attribute, consequence, and value (ACV) associations for spiritual backcountry experiences. A HVM is read from the bottom up. Attributes are represented as circles in white, have all lower case labels, and are typically at the bottom of the map. Consequences are represented as circles with a grayish appearance, have the first letter of the label capitalized, and are typically near the middle. Values are represented as blackened circles, have all upper case labels, and are typically near the top. A line of various thicknesses represents relationships between any two ACV concepts. The thickness of the line depends on the frequency with which one ACV concept is expressed in relation to the other. Thicker lines are used to identify more dominant ACV associations that were expressed by informants (Baker, Thompson & Engelken, 2004; Goldenberg, McAvoy and Klenosky, 2005). The *N* in each ACV circle represents the number of informants who expressed that concept in relation to a spiritual backcountry experience. The overall shape of a HVM does not reflect meaningful information (Harass, Bunting & Witt, 2006).

In addressing the first two research questions, analysis was carried out on two HVMs (Figures 4.1 and 4.2). Figure 4.1 addresses research question one, the purpose of which was to identify the meaning, expressed by informants, that was represent when an experience is described as spiritual. Thus, this HVM uses the lowest cutoff level and includes all ACV concepts that were expressed by at least three informants, a decision point that was discussed in the previous section. Examination of the figure provides a list of the attributes, consequences, and values associated with a spiritual backcountry

experience, and the frequency (denoted as N) with which informants expressed those ACV concepts.

The second Figure (4.2) addresses research question two, which seeks to understand the ACV relationships. This HVM was generated using a higher cutoff value that eliminated all associations between ACV concepts that were not expressed by at least 6 informants, a decision that is discussed in the next section. The change in cutoff value did not alter the underlying data. Rather, the higher cutoff value simply allowed the dominant linkages between ACV concepts to emerge from the more complex illustration of Figure 4.1 (Gengler & Reynolds, 1993). The result of this second analysis is a clearer set of mean-end chains that are associated with a spiritual backcountry experience. The analysis of the overall pool of informant results is discussed next.

Analysis of the Overall Data

Figure 4.1 illustrates the associations of the identified attributes, consequences, and values for the overall data. The HVM was based on a cutoff level of 3 and reflects 77% of the ACV associations for all 63 informants. Evident in this HVM are all of the ACV concepts expressed by informants in relation to what was meant when describing a backcountry experience as spiritual. All of the value concepts together reflect the meaning of the term spiritual. The dominant links represented in Figure 4.1 are between the attribute of the backcountry setting and the consequence of a tranquil experience. Two other dominant links are seen in a pair, between the social attribute and the consequence of sharing and between sharing and the value of connection. A third dominant link is between the consequences of focus that results from the experience and

the value of a transcendent experience. The remainder of the map illustrates a multitude of associations between the various ACV concepts defined in Table 4.6. These associations represent links in a means-end chain, from attribute to consequence to value.

The second purpose of the study was to understand the relationships between the attributes, consequences, and values associated with the meaning of spiritual backcountry experiences. For an interpretation of results that corresponds with this purpose, a cutoff level of 6 was used, representing 10% of the sample and 40% of associations (see Table 4.11). The change in cutoff level, to 6 from 3, does not alter the underlying data; rather, the change in cutoff level better illustrates the dominant links expressed between ACV concepts, and thus was more relevant to understanding the attribute, consequence and value (ACV) relationships, or means-end chains. In comparison with Figure 4.1, Figure 4.2 shows a reduction in the number of links illustrated and a more evident illustration of the dominant links. By reducing the number of associations on the map, the illustration reflects the dominant pathways and provides clarity of insight into the ACV concepts that are most relevant to the purpose of this research (Gengler & Reynolds, 1995).

The cutoff level of 6, used to generate the HVM in Figure 4.2, removes 60% of the associations from the overall implication matrix. The result is a graphic illustration of the most frequent ACV concepts and ACV relationships expressed by the 63 informants. All ACV associations in the HVM were expressed by a minimum of 6 informants. Using a higher cutoff value allowed for more ready identification of the prominent ACV linkages in the Figure 4.1 HVM. By using a cutoff level of 6, clearer recognition of the dominant link that the attribute of backcountry has with the consequences of beauty, enjoy, tranquil and reflect is afforded. In turn these three consequences all show a link

with the awareness value: reflect has a dominant link with awareness; tranquil and enjoyment are also linked. The backcountry attribute is also linked to the consequence of focus and the values of appreciation, connection and at peace. The adventure attribute is also linked to the consequence of focus with a dominant link to the value of transcend. Adventure is linked to the value of awareness. The social attribute has a dominant link to the consequence of share and also a dominant link to the value of connection. The attribute of exercise has a dominant link to the consequence of health. The skill attribute is linked to the value of transcend.

Figure 4.2 provides a clear illustration of several dominant means-end chains that are nested in the overall data. The meaning attributed to this illustration of the more dominant linkages is the identification of ACV relationships that can be used to guide policy, practice, and research. However it should be noted that, while these are the dominant associations expressed by at least six informants, the numerical data in the implication matrix discussed earlier (see Figure 4.10) and the hierarchical value map in Figure 4.10 illustrate all of the attribute, consequence, and value categories represented in the informant pool's expressed meaning of a spiritual backcountry experience.
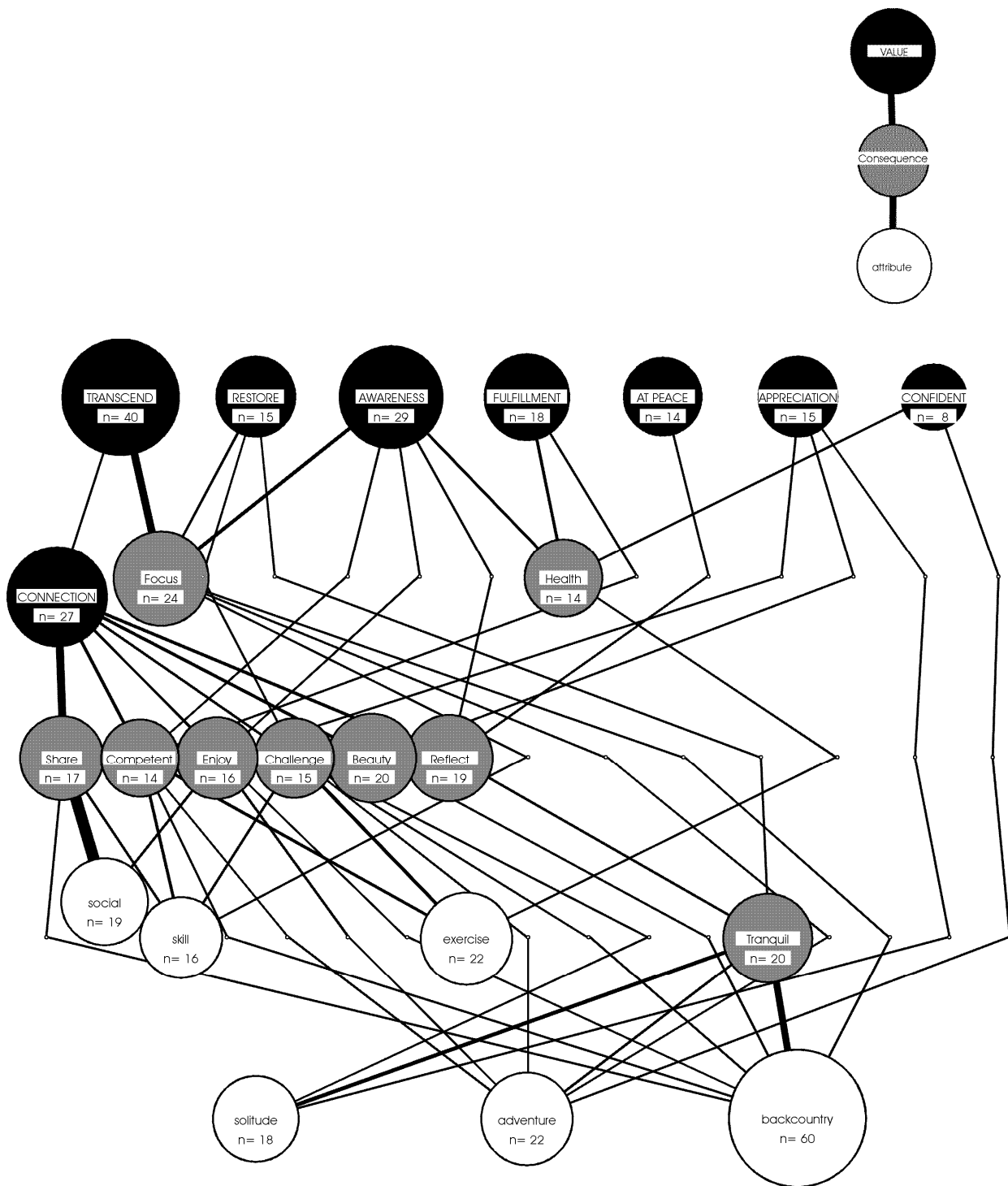
Figure 4.1. Hierarchical value map for spiritual backcountry experience – all informants
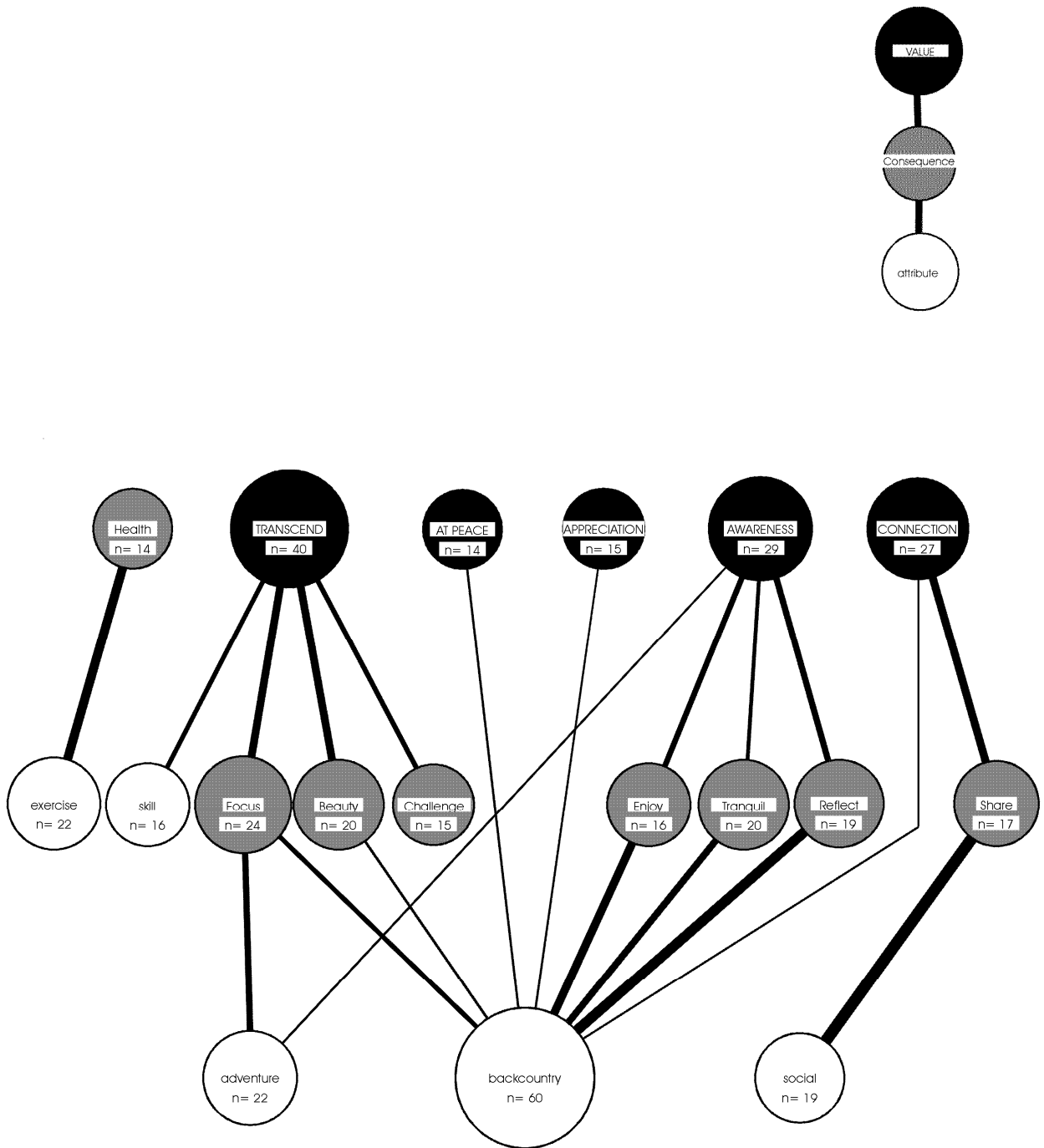
(*N* = 63), cutoff level 3.

Figure 4.2. Hierarchical value map for spiritual backcountry experience – all informants

($N = 63$), cutoff level 6.

Analysis of the Data by Groups

In addressing the third, fourth and fifth research questions, an analysis of groups was undertaken. The groupings analyzed were based on age, gender, mode of skiing on the day of the interview, years of backcountry experience, the activity that provided the informant with a spiritual experience, and the informant's level of skill in that backcountry activity. The purpose of the analysis was to identify differences in the means-end structures within these groups and between the groups and the overall sample. Means-end analysis is based on the frequency of expression of attribute, consequence and value (ACV) concepts and the relationship between those concepts. The analysis conducted in order to address research questions three, four, and five in this study was comprised of two stages.

In the first stage, the hierarchical value maps (HVM) that were generated for each grouping (Figures 4.3 – 4.18) were examined to see if there were any differences between groupings. Each HVM was generated for the lowest cutoff value (Table 4.11) as a way to identify all of the ACV concepts that each group expressed as relevant to the description of a backcountry experience as spiritual. In interpreting these HVM, it is important to recall that the overall shape is of no importance. Across all groups each of the six attributes and nine consequences were expressed as a part of the means-end relationships. Each group expressed seven of the eight values. The value *confident* was not expressed by four of the subgroups: the 36 – 65 year old group, the telemark skiers, the group with more than 14 years of backcountry experience, and the skier group (i.e. those who reported only some form of skiing as an avenue to spiritual experience).

The value of confident was only expressed by a small number (*n*=8, 13%) of

informants in the total pool (N=63). Given the overlap that exists between these four groupings, and across other demographic characteristics, it was not possible to draw a meaningful conclusion from the analysis. Understanding this difference was not possible given the data collected. Thus, it seemed reasonable for the researcher to conclude that this value, confident, plays a lesser role in relation to what informants perceive as other more dominant values associated with a spiritual backcountry experience. Absence of the content value in the ACV chains of some groups may be related to some stage of spiritual development, as is discussed in Chapter 5.

Also evident from an analysis of the hierarchical value maps (HVMs) was the dominant relationships between ACV concepts, represented by thicker lines connecting two concepts. The dominant relationships noted for a given subgroup (Figures 4.3 – 4.18) were evident in the overall data (Figures 4.1 and 4.2, and Table 4.10). These dominant links are noted in the analysis and interpreted further in the Discussion section in Chapter 5.

It is evident from Table 4.12 that the frequency distribution for the expression of ACV concepts was concentrated. This concentrated distribution is noteworthy in that there is a relatively even frequency distribution of responses across the 23 ACV concepts, which therefore results in a complex array of ACV linkages illustrated in the HVMs. Of the 23 ACV concepts, 17 were expressed by between 14 and 24, or 22% and 38%, of the 63 total informants (Table 4.13). The poles of this distribution were represented by the value of confident with a small number (n=8, 13%) of informants. At the high end of the distribution, the attribute backcountry was expressed by 95% (n=60). Also, the value of transcend was expressed by 63% (n=40) of the informants.

The second stage of analysis was to examine the data for each group and the overall sample from the perspective of the frequency with which each ACV concept was expressed (Tables 4.12 and 4.13). While many of the HVMs produced in the present analysis appear cluttered, the focus of this research was not to interpret the minutia of linkages between attribute, consequence, and value (ACV) concepts. Rather, the goal was to capture both the overall meaning from the value concepts and the overall relationships between the ACV concepts. Tables 4.12 and 4.13 provided data for a perspective that facilitated identification of differences in the face of the complicated aesthetic of the HVMs. Data in the tables confirmed the relationships illustrated by the HVMs. Analysis of the tables identified differences between subgroups and between subgroups and the overall sample. However, based on the data gathered, it was difficult to conclude whether or not these differences were meaningful (Gutman, 1982; Reynolds & Gutman, 1988). Rather, this approach was used simply to confirm the visual interpretation of the HVMs. Differences in percentage of frequency of expression, between the overall data and a given subgroup, are noted in the following discussions if the difference was 15% or more. An examination of the difference between subgroups follows.

Age

Three age groups represented 18-25 year olds (*n*=13), 25-35 year olds (*n*=32) and 36-65 year olds (*n*=18). Because of the lower number of informants in the older groupings, the oldest grouping (36-65) represents a merging of the 36-45 (*n*=11), 46-55 (*n*=5), and 56-64 (*n*=2) year old groupings. The cutoff levels used to generate HVMs are summarized in Table 4.11. The cutoff level for the youngest group was 1, representing

100% of the associations. The cutoff level for the middle group was 2, representing 80% of the associations. The cutoff level for the oldest groups was 1, representing 100 percent of associations. Data in Tables 4.11 and 4.12, discussed previously, were used for analysis of the HVMs. Similarities and differences emerged from analyzing the three hierarchical value maps found in Figures 4.3, 4.4, and 4.5.

With one exception, all attributes, consequences, and values appeared in each grouping, and most of the linkages were reasonably similar in comparison to one another and the overall HVM. The exception noted is that oldest group, aged 36-55, did not express the value of confidence. The HVM for the 25-36 year old group shows dominant links between the social attribute, the consequence of sharing and the value of connection, as well as between the exercise attribute and the health consequence. Also for this group, there were dominant links between the consequences of focus and the value of transcend, as well as between the consequence of challenge and transcend. For the youngest group of 11 informants (18-25), the values of transcend and awareness were linked only to the value of connection and not to other attributes. For the older grouping there is a linkage between the tranquil consequence and the awareness value. In sum, the 26-35 year old group expressed dominant ACV chains for the relationship between exercise and wellbeing and the social aspects of a spiritual backcountry adventure. As will be recognized, other groups also expressed these specific dominant relationships. There is however, no evident basis for explaining differences between the groups that did and those that did not express this dominant relationship.

Other differences identified were reflective of the relative frequency with which a given ACV concept was expressed in relation to the others. While these differences are

noted in this analysis, there is no evident basis for an explanation of these differences. The older group differed from the others and from the overall sample in lower expressions of the consequence of sharing (11%) and health (06%) compared to the overall 27% and 22%, respectively. The value of connection (28%) was also lower compared to the overall (43%). The younger group was only different from the overall pool in the level of the appreciation value, 8% compared to 24% overall.
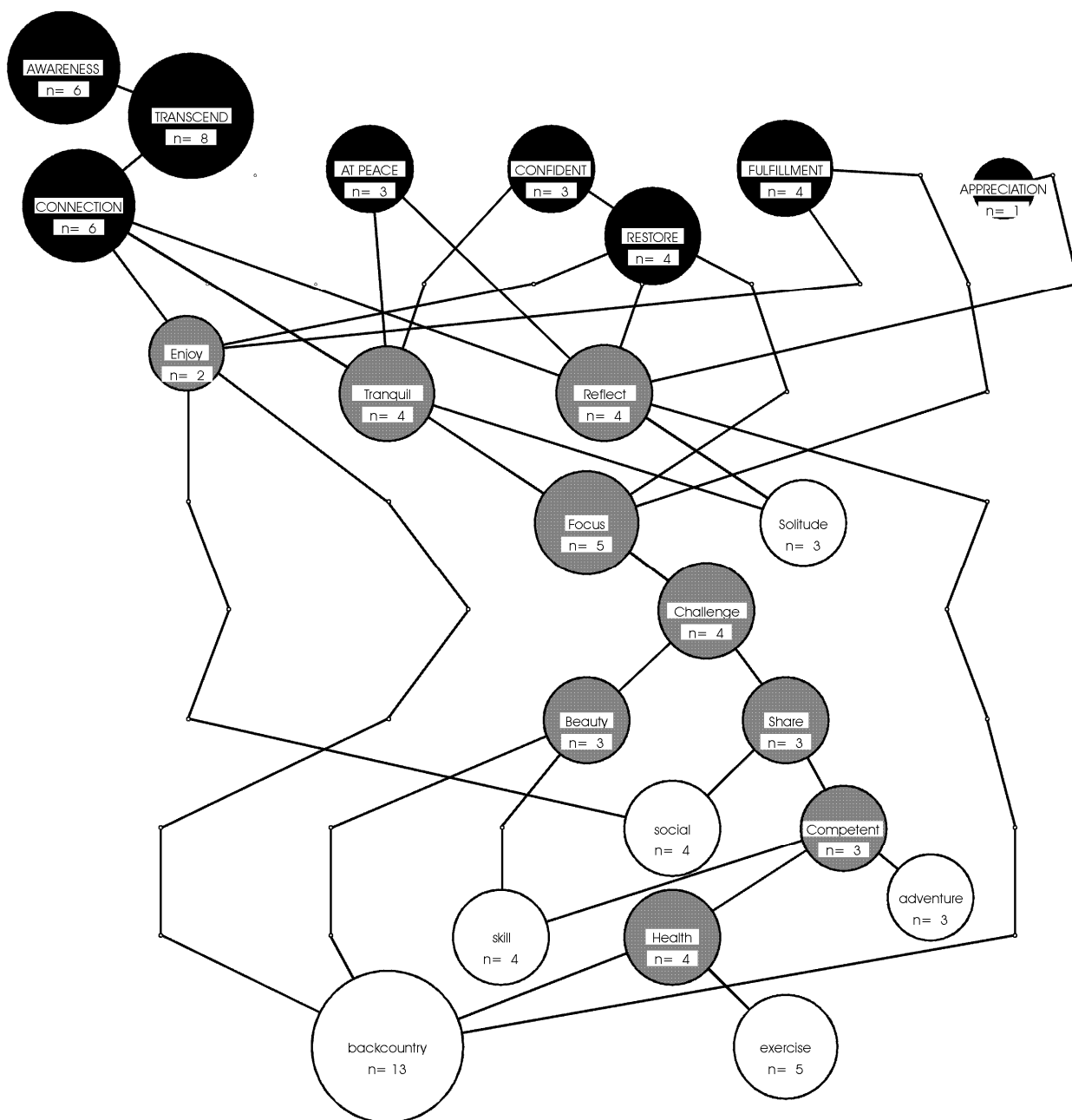
Figure 4.3. Hierarchical value map for spiritual backcountry experience – 18-25 year old

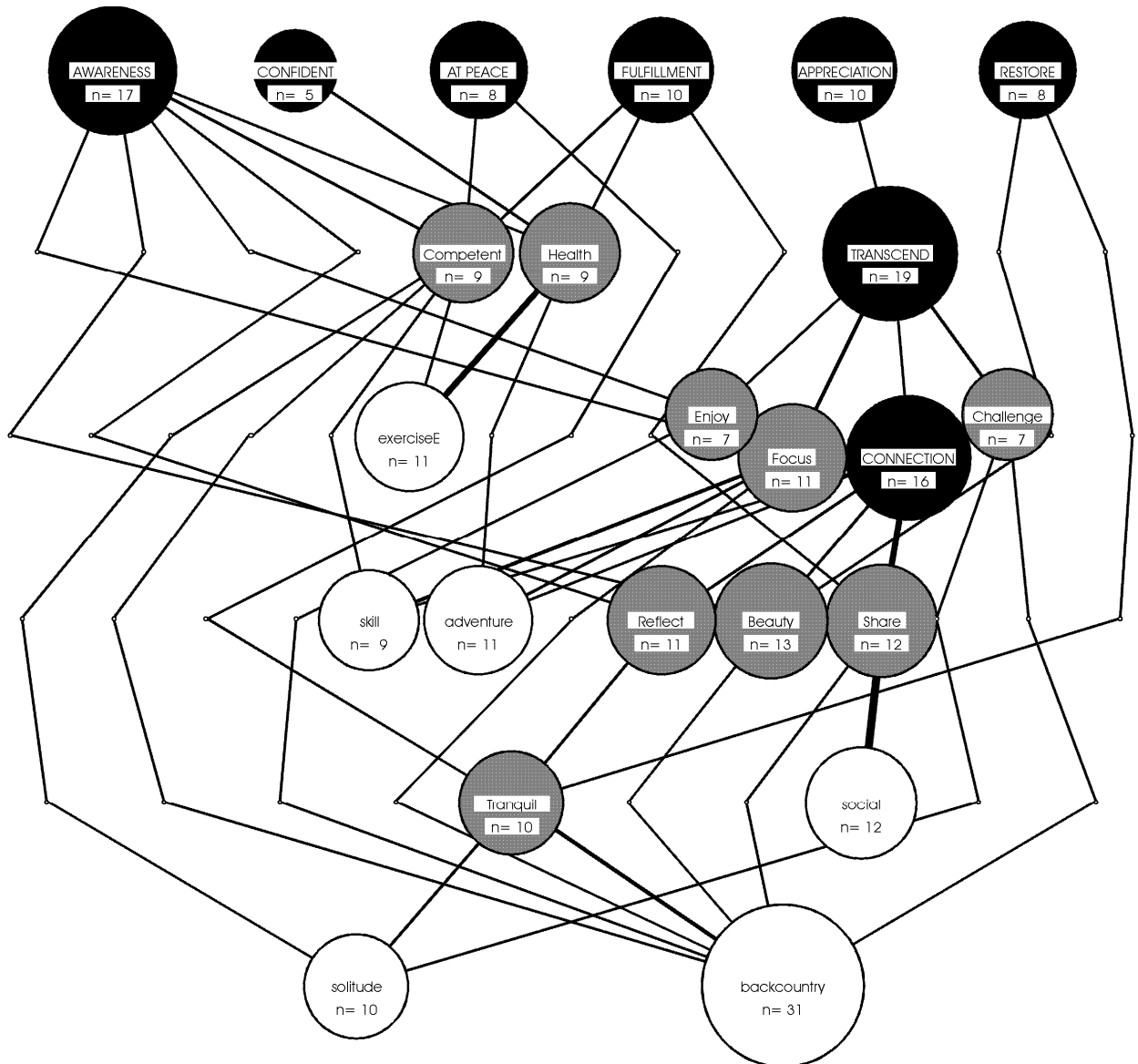group (*n* = 13), cutoff level 1 with 100% of associations represented.

Figure 4.4. Hierarchical value map for spiritual backcountry experience – 26-35 year old

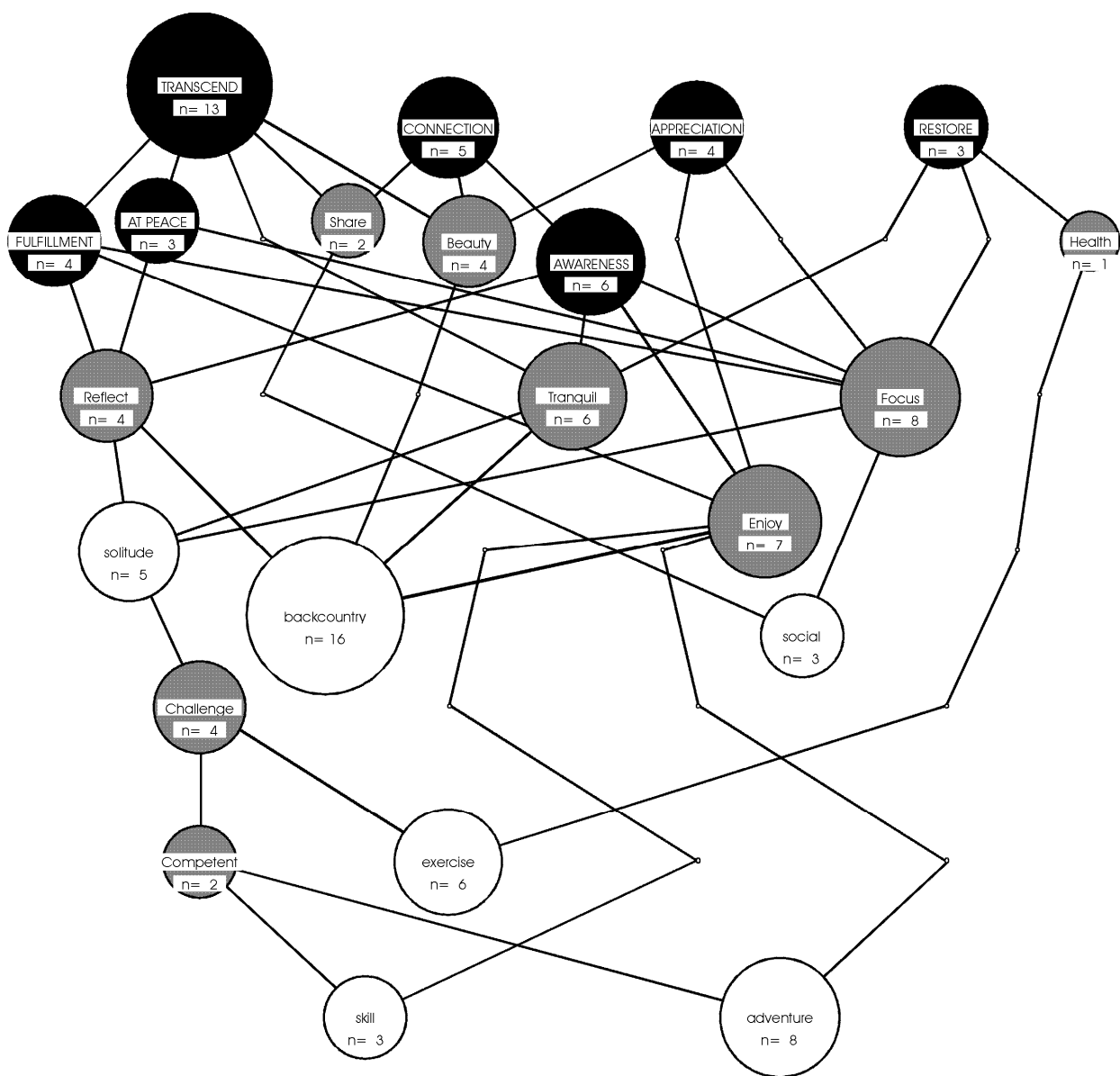group (*n* = 32), cutoff level 2, with 80% of associations represented.

Figure 4.5. Hierarchical value map for spiritual backcountry experience – 36-65 year old

group (*n* = 18), cutoff level 1 with 100% of associations represented.

Gender

The hierarchical value maps, Figure 4.6 for women and Figure 4.7 for men, were analyzed. Twenty-one women and 42 men participated in the interviews. The cutoff level for the female group was 1, representing 100% of the associations. For the males, 85% of associations were represented at cutoff level 2. The hierarchical value map HVM for both groups shows all attributes, consequences, and values were expressed. However, for men there are dominant links not illustrated in the HVM for women. The dominant values are between the social value and the consequence of share, and from the transcend value to both consequences of beauty and focus. Dominant linkages for men include the consequence of enjoyment with the value transcend, the consequence of reflect with the value of awareness, and the consequence of challenge with the attributes of solitude, exercise, and adventure. These differences in attribute, consequence, and value (ACV) association are noteworthy for research, theory, and practice.

Tables 4.11 and 4.12 provided insight into the differences between the groups and the overall data. Differences identified were reflective of the relative frequency with which a given ACV concept was expressed in relation to the others. While these differences are noted in this analysis, there is no evident basis for an explanation of this difference. The only remarkable difference in data from Table 4.11 or 4.12 was between men and women for the transcend value. Compared to the overall data (63%) men expressed this value more frequently (71%) than women (48%). The difference between each group and the overall data were within 15%. The implications for these differences were captured in the analysis of the HVM, noted in the previous paragraph.
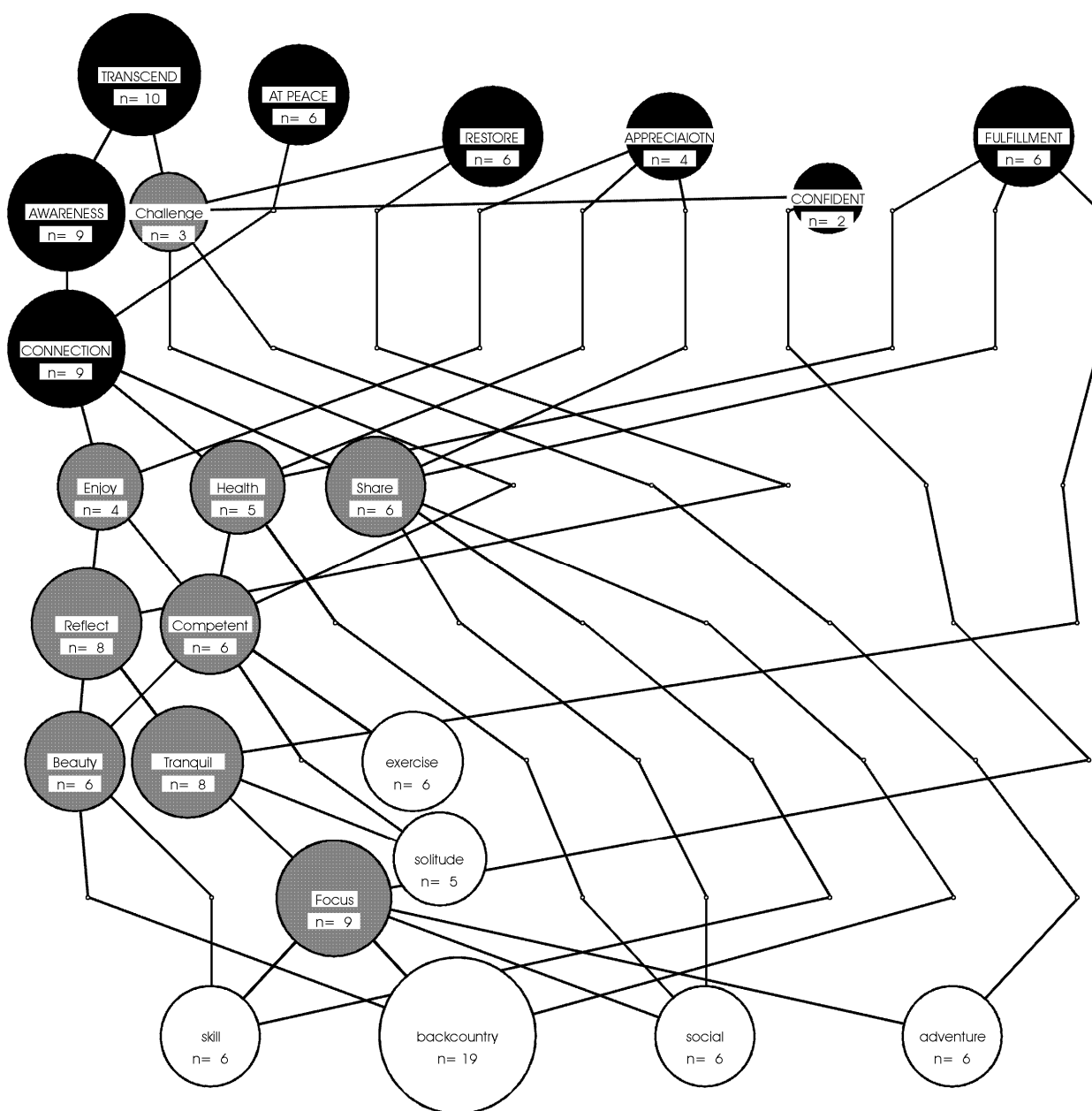
Figure 4.6. Hierarchical value map for spiritual backcountry experience – women (*n* =

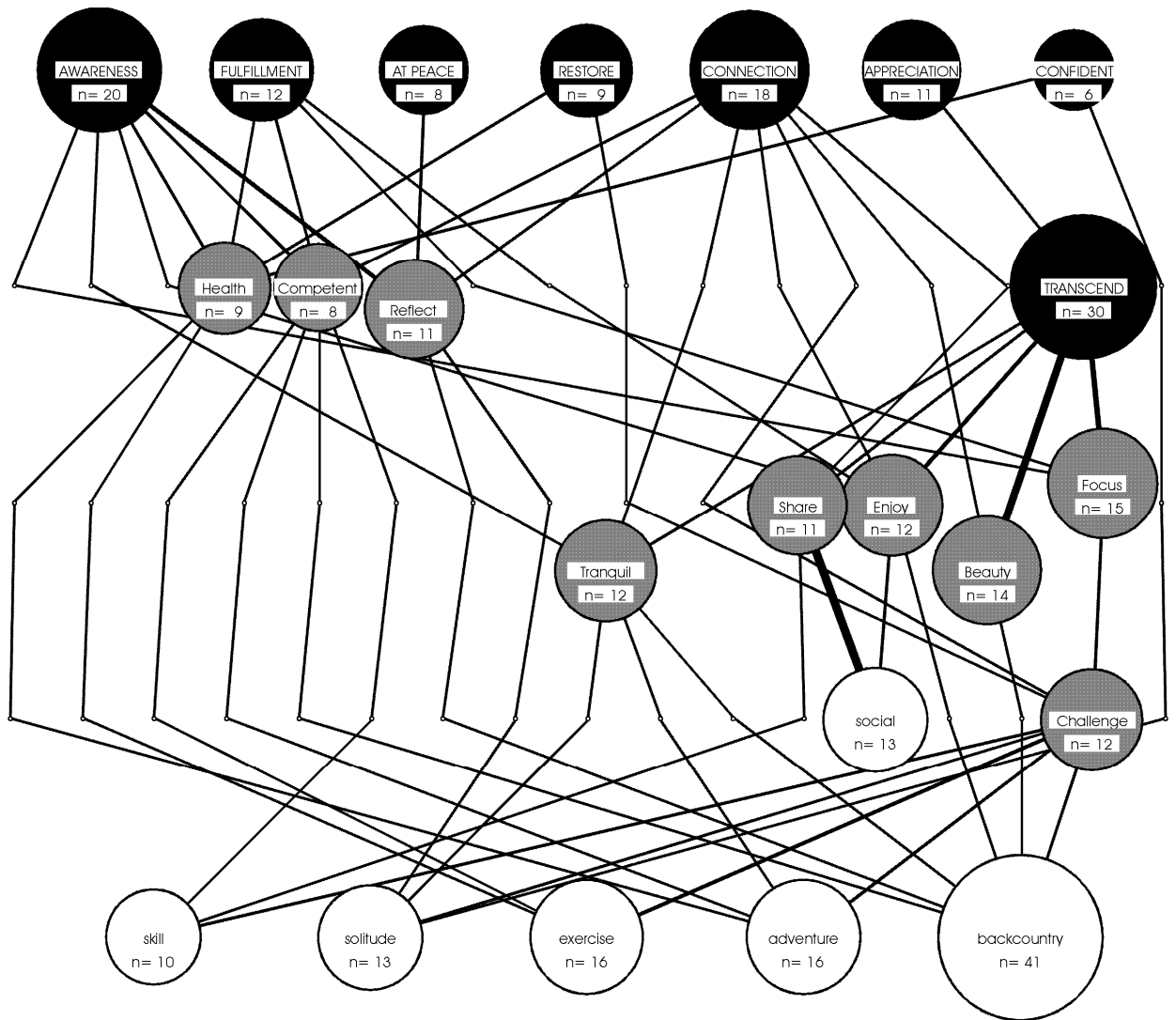21), cutoff level 1 with 100% of associations represented.

Figure 4.7. Hierarchical value map for spiritual backcountry experience – men (*n* = 42),

cutoff level 2 with 80% of associations represented.

Mode of Skiing

The mode of skiing groups represent the skier type that informants identified with on the day in which they participated in the interviews. Three groups, alpine skiers (*n*=26), telemark skiers (*n*=18), and snowboarders (*n*=16), were included in the analysis. The cut off levels and percentage of associations for alpine skiers (cutoff level 2:, representing 78% of associations), telemark skiers (cutoff level 1, representing 100% of associations), and snowboarders (cutoff level 1, representing 100% of associations) were used to generate the maps. Similarities and differences were found through graphical and numerical analysis.

The three groups were similar in the representation of all attribute, consequence, and value concepts in each group, with the exception of no confidence being represented as a value among the telemark skiers. Graphically, alpine skiers (Figure 4.8) showed linkages that were dominant compared to similar linkages for snowboarders (Figure 4.9) and telemark skiers (Figure 4.10). There was a dominant chain between the adventure attribute and focus consequence, for alpine skiers. There were also links between the reflect consequence and awareness value, and between the value of transcend and the consequences of challenge, focus, and beauty. While the alpine skiers expressed several dominant chains and a broad set of association between different consequences and values, the telemark skiers expressed more values as relating to one another, rather than in relation to consequences. In comparison to these two groups, the HVM for snowboarders seems somewhat in between, with more values linked to each other than skiers, and also with more values associated directly with consequences than with telemarkers. There is no evidence from which to explain these differences.

Tables 4.11 and 4.12 provided insight into the differences between the groups and the overall data. Differences identified were reflective of the relative frequency with which a given ACV concept was expressed in relation to the others. While these differences are noted in this analysis, there is no evident basis for an explanation of these differences. Telemark skiers were most different from the overall sample. This group expressed a relatively higher level of the connection value than the overall informant pool (67% as compared to 43% overall and only 23% for alpine skiers). Similarly the value of appreciation was much higher, 61% compared to 24% overall. Also, no telemark skiers expressed the value of confidence. Snowboarders expressed the value confident more often than the overall, 38% compared to 13%. Snowboarders also were higher on recognizing the attribute of solitude, 38% compared to 18% overall. The difference with alpine skiers was a lower expression of the value of connect, 23% compared to 43% overall.
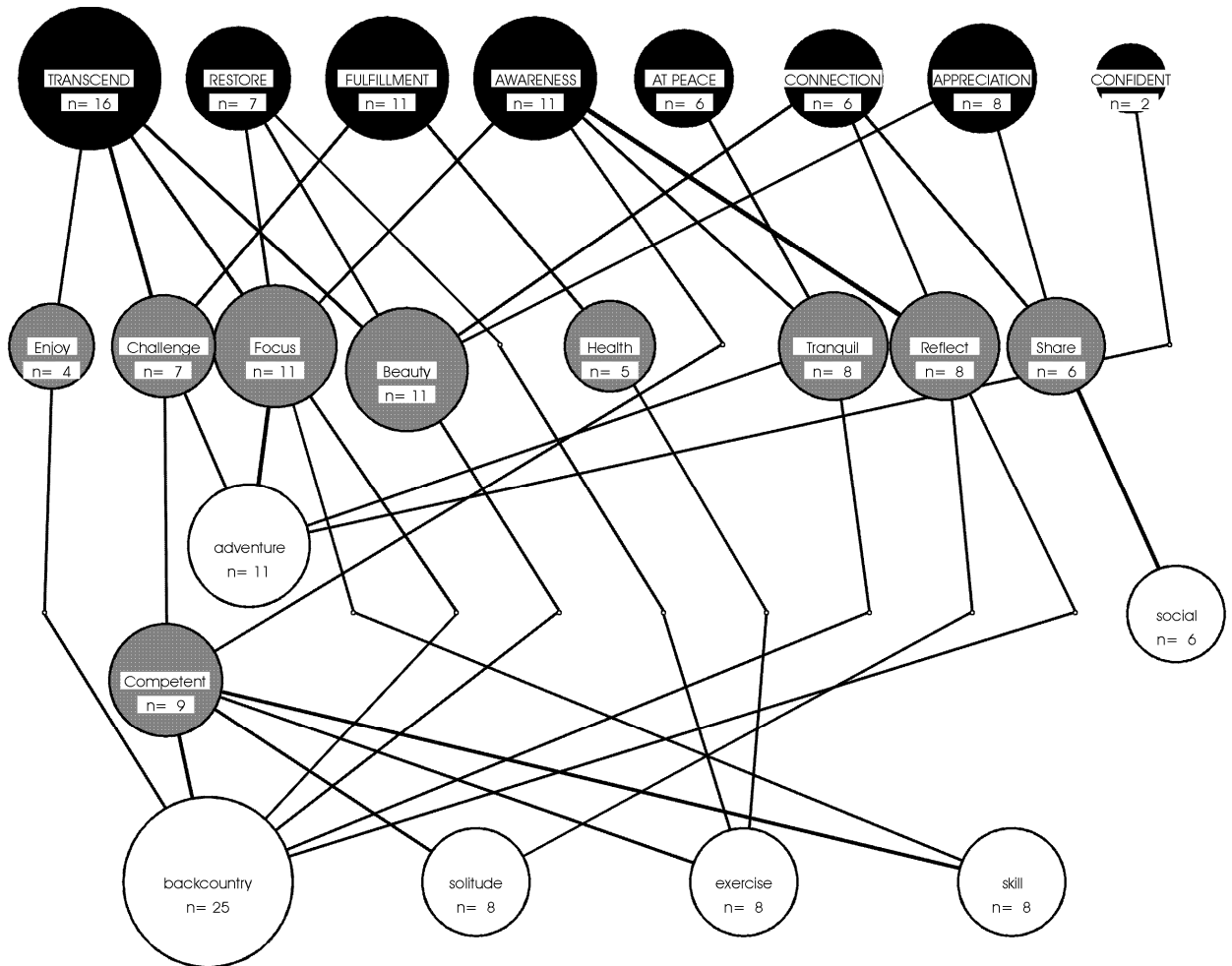
Figure 4.8. Hierarchical value map for spiritual backcountry experience – alpine skiers (*n* = 26), cutoff level 2 with 78% of associations represented.
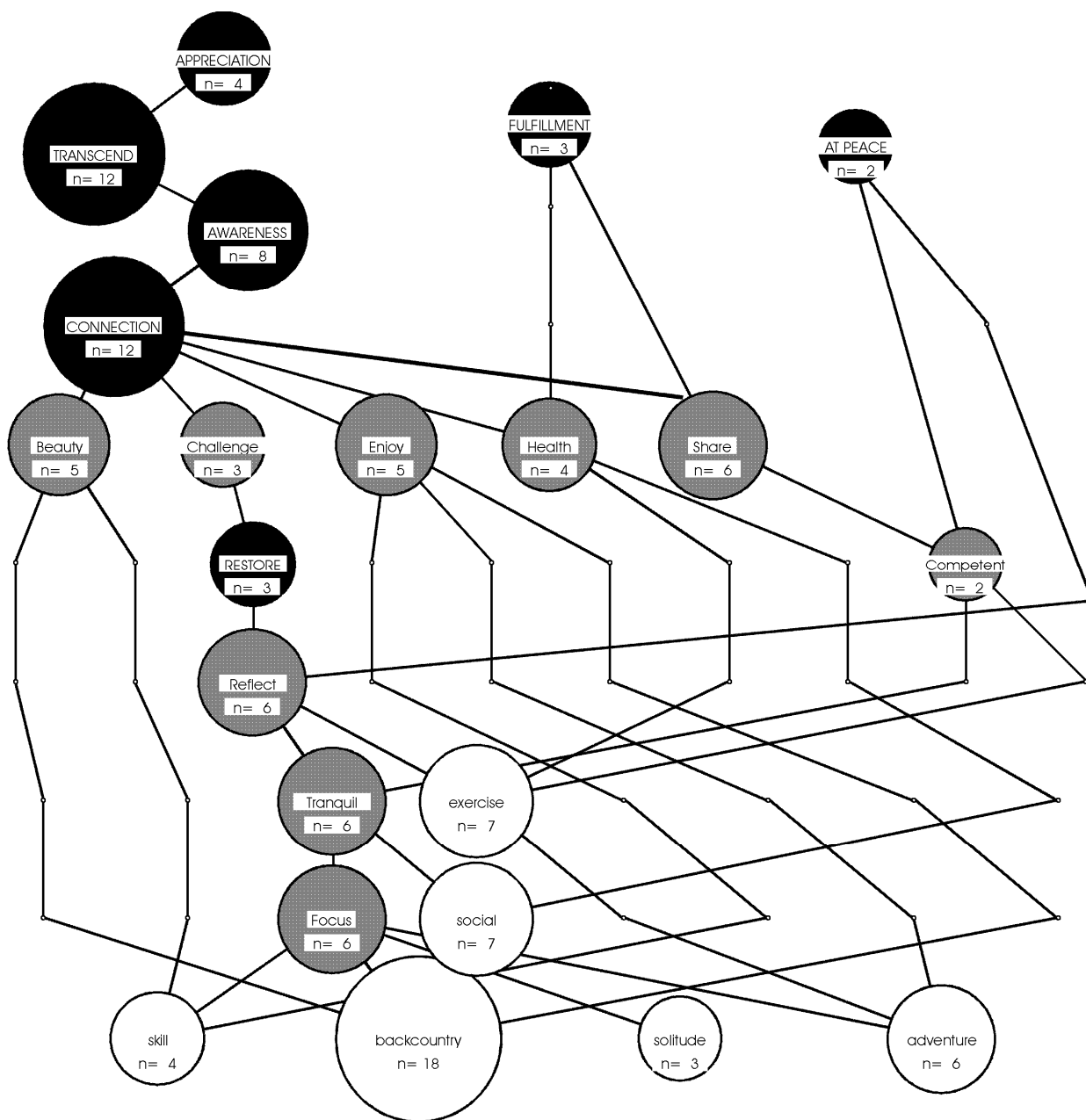
Figure 4.9. Hierarchical value map for spiritual backcountry experience – telemark skiers

(*n* = 18), cutoff level 1 with 100% of associations represented.
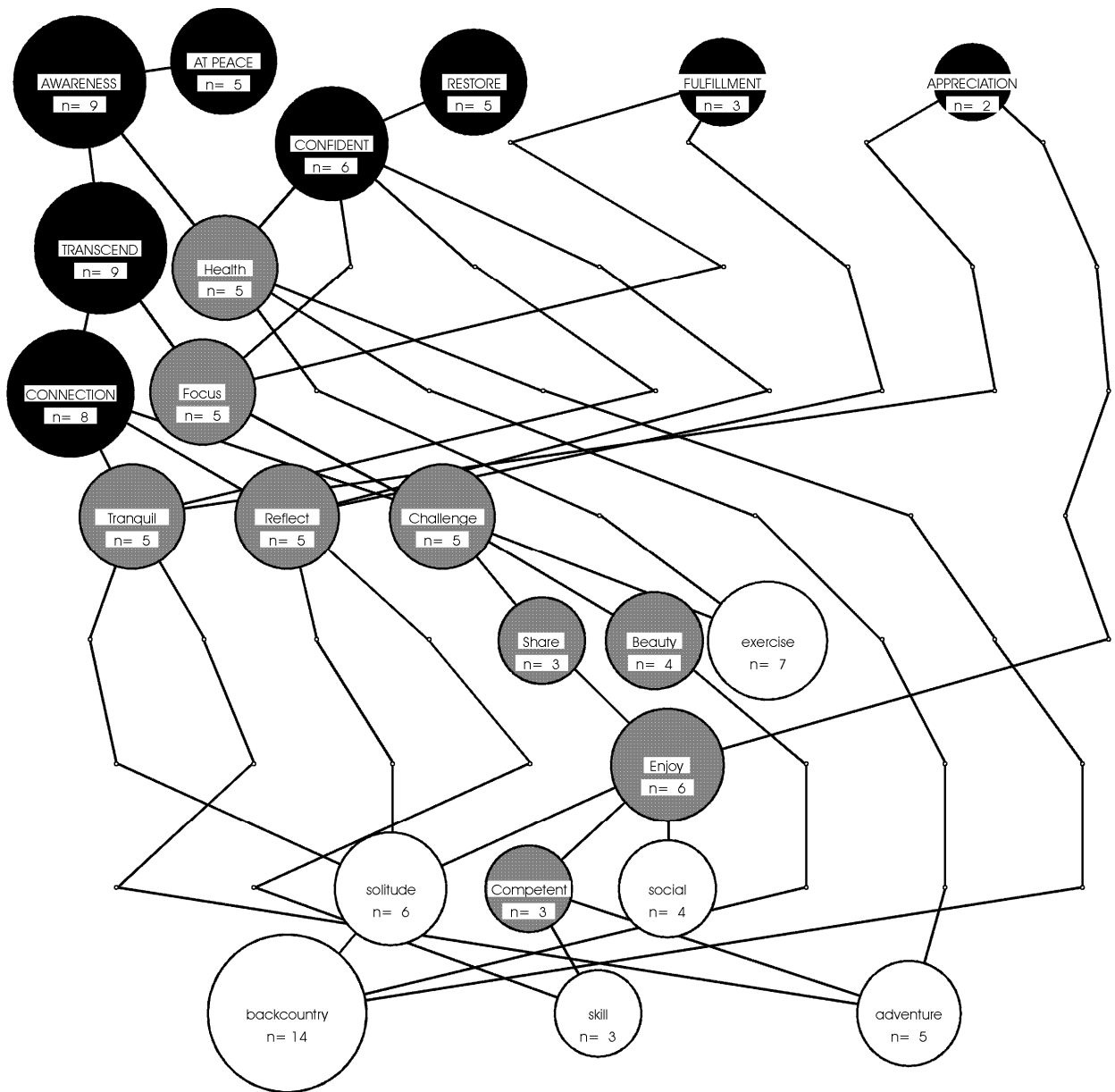
Figure 4.10. Hierarchical value map for spiritual backcountry experience – snowboarders

(*n* = 16), cutoff level 1 with 100% of associations represented.

Years of Backcountry Experience

The cutoff level used for generating hierarchical value maps was 1 representing 100% of associations for each of the three groupings based on years of backcountry experience: 2-7 years (*n*=22), 8-10 years (*n*=22), and more than 14 years (*n*=19). Given a lack of empirical basis as the foundation by which to establish groups based on experience level, the groupings were made intuitively. It seemed that given a spectrum of from two to more than 30 years of experience, the first five years would represent less experience and those with more than 14 years of experience would represent a group with much more experience. The remaining group, those with 8 – 14 years of experience, was assigned to the middle of the continuum. Additionally, it was concluded by the researcher that forming these groups with some basis in the number of informants per group would provide for a reasonable balance of the number of informants in each category, resulting in more comparable HVM illustrations. Numerical and graphical data were used to identify similarities and differences.

Hierarchical value maps in Figure 4.10 (2 – 7 years), Figure 4.11 (8 – 14 years), and Figure 4.12 (more than 14 years) were used to identify linkages between the attribute, consequence, and value (ACV) concepts. One ACV concept was not recognized by one of the groups. The value confident was not expressed by the more experienced group (more than 14 years), as compared to 8% overall. In reference to differences in the dominant linkages, the group with 8 – 14 years of experience expressed a dominant link between the consequence of sharing and the attribute of connection. This link was dominant compared to the less (2-7 years) and more (more than 14 years) experienced groups. The 8 – 14 year group also expressed a dominant link between the consequence

of enjoy and the value of awareness. Of the three groups, the less experienced (2 – 7 years) and middle (8 – 14 years) groups expressed consequence and value concepts in relation to one another while the more experienced group (more than 14 years) expressed simpler chains of attributes linked to consequence which were in turn linked to values. There is no evidence from which to explain these differences.

Tables 4.11 and 4.12 identified that the less experienced group expressed a higher level of awareness (68%) than the overall informant pool (46%). Conversely, that same group expressed fulfillment as a value, 11% compared to 29%. Differences identified were reflective of the relative frequency with which a given ACV concept was expressed in relation to the others. While these differences are noted in this analysis, there is no evident basis for an explanation of this difference.

Figure 4.11. Hierarchical value map for spiritual backcountry experience – 2 – 7 years of

backcountry experience (*n* = 22), cutoff level 1 with 100% of associations represented.
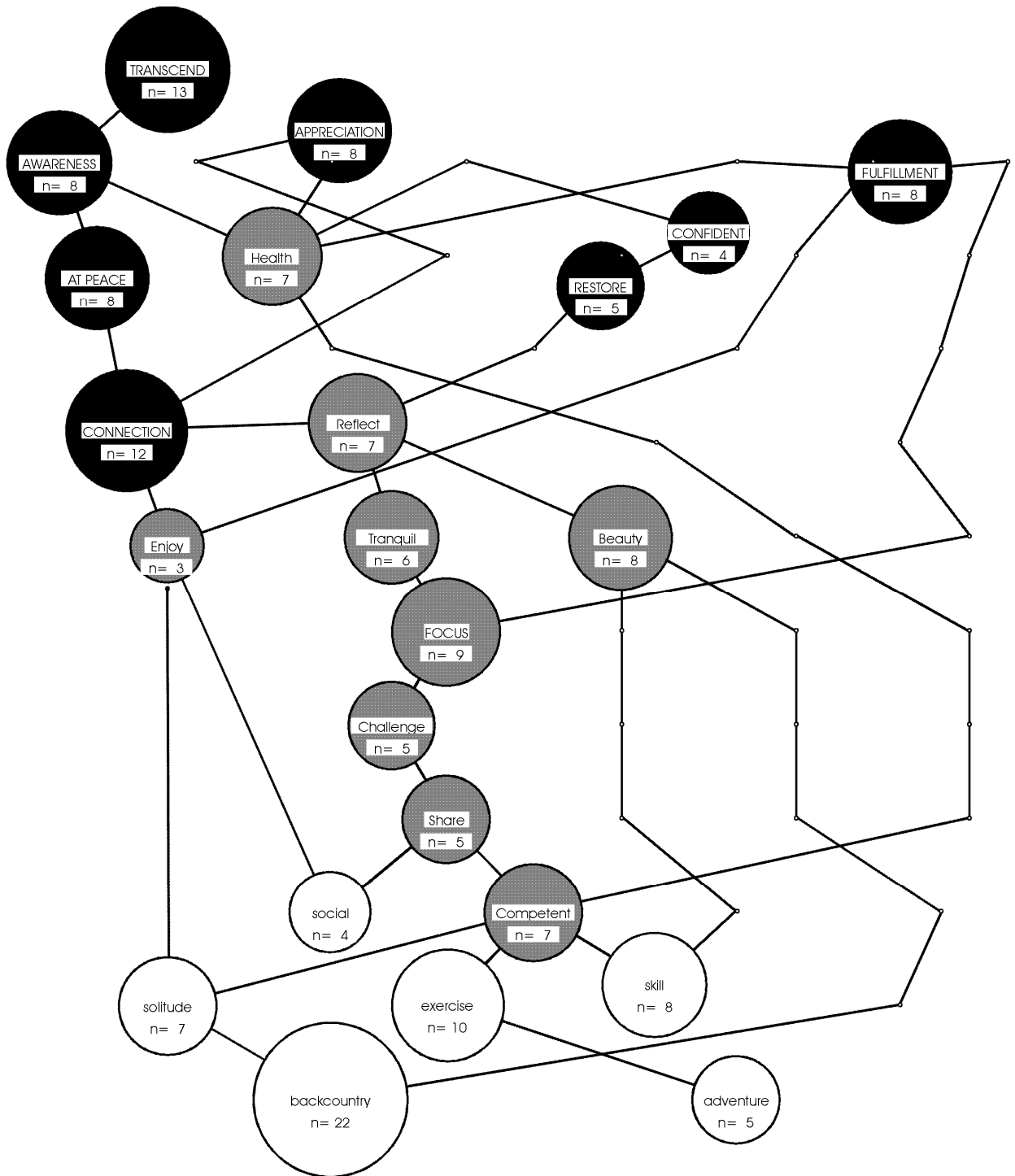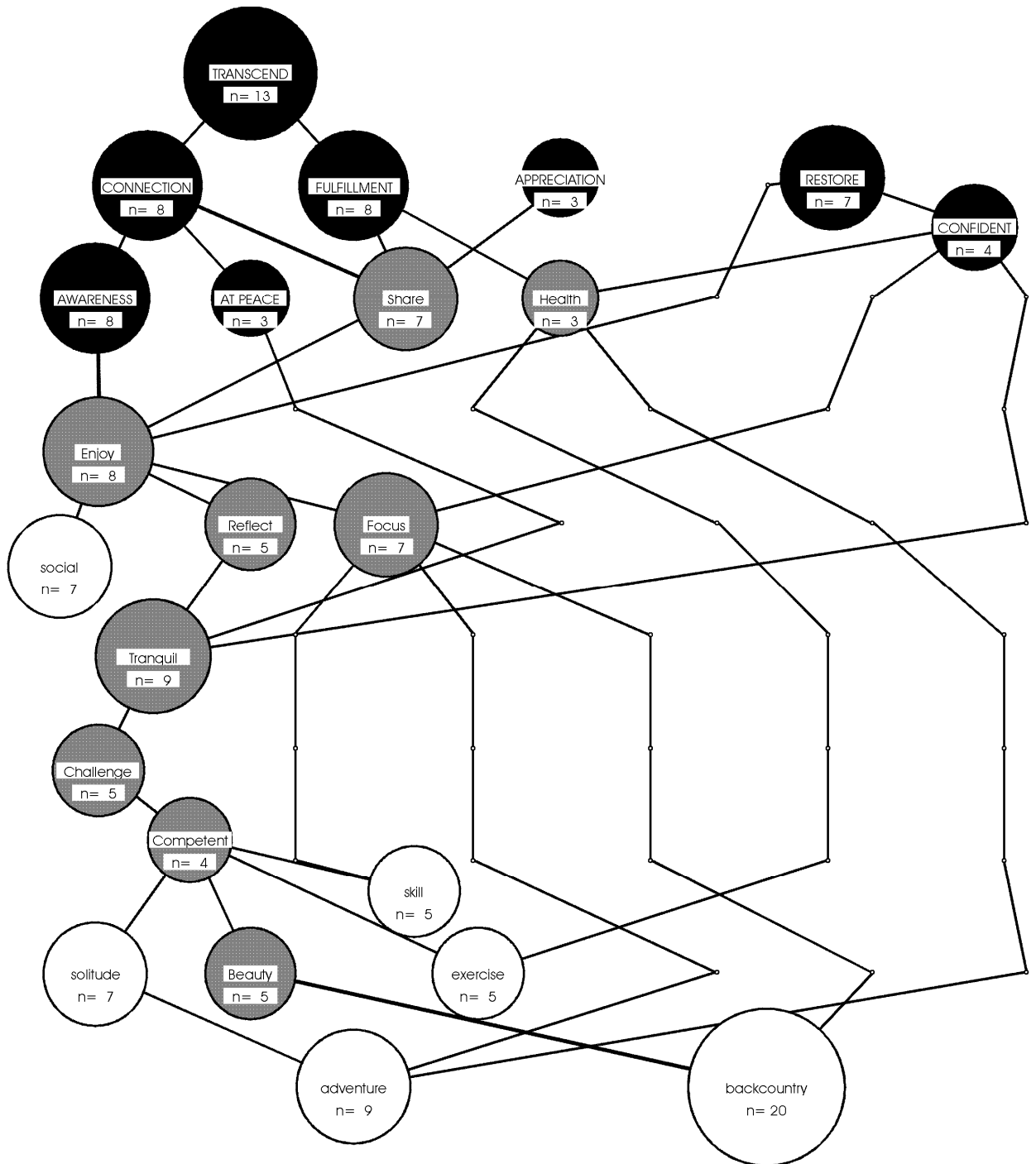
Figure 4.12. Hierarchical value map for spiritual backcountry experience – 8 – 14 years

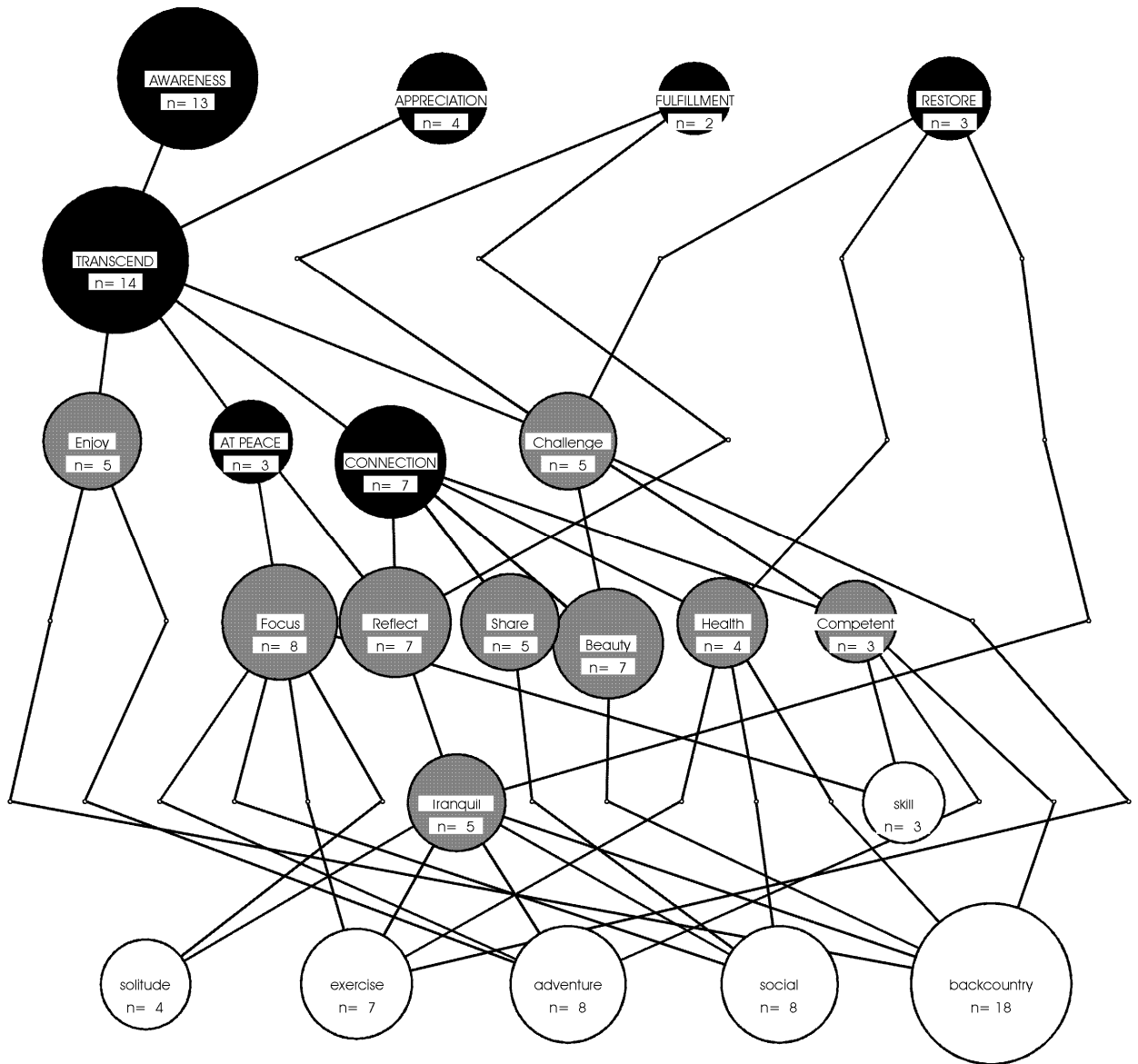of backcountry experience (*n* = 22), cutoff level 1 with 100% of associations represented.

Figure 4.13. Hierarchical value map for spiritual backcountry experience – more than 14 years of backcountry experience (*n* = 19), cutoff level 1 with 100% of associations represented.

Spiritual Backcountry Activity

Spiritual backcountry activity is the avenue that provided spiritual experiences for the informant. The groupings for spiritual backcountry activity were based on three categories; the all group, (i.e. those who identified all backcountry activities as providing spiritual backcountry experiences); the skier group, (i.e. those who expressed some form of skiing only, either alpine, telemark, or snowboarding) as providing spiritual backcountry experiences; and the skier + 1 group, (i.e. those who expressed both some form of skiing and one other activity as providing spiritual backcountry experiences). The all group consisted of 25 informants (cutoff level 2 with 77% of associations represented) and the skier group consisted of 24 informants (cutoff level 2, with 68% of associations represented). The skier + 1 group had a total of 32 informants (cutoff level 2, with 70% of associations represented). Similarities and differences were found through graphical and numerical analysis.

Graphical similarities and differences were found in the hierarchical value maps in Figure 4.14 (all group), Figure 4.15 (skier group), and 4.16 (skier +1 group). With the exception for the all group not expressing the value confident, all attributes, consequences, and values were expressed across the groups. Common across all three groupings were a dominant link between the social attribute and the share consequence, as well as between the reflection consequence and the awareness value. As expected, the skier group and skier + 1 group exhibited similar dominant links between other ACV concepts. The skier group and skier + 1 group were different from the all group in that these two groups expressed dominant links between the adventure attribute and focus consequence, as well as between the backcountry attribute and both consequences of

beauty and reflect. Other dominant links that were different between the skier group and skier + 1 group in comparison with the all group include the association of the backcountry attribute with the enjoy consequence, the reflect consequence with the connection value, and the exercise attribute with the health consequence. Differences between the all group and the other two groups were a dominant link between the share consequence and the connect value, and a dominant link between adventure and challenge. The all group and skier + 1 group shared a difference with the skier group in the expression of a dominant link between the transcend value and the consequences of both beauty and focus. There is no evidence from which to explain these differences.

Tables 4.11 and 4.12 provided insight into the differences between the groups and the overall sample. Differences identified were reflective of the relative frequency with which a given ACV concept was expressed in relation to the others. While these differences are noted in this analysis, there is no evident basis for an explanation of this difference. The all backcountry activities group was different from the overall informant pool and the other groups for two consequences and one value. For the consequence of reflection, this group was lower, 12% compared to 30%. The all group was higher than the overall pool in the sharing consequence with 44% and 27%, respectively. The group with members that identified one form of skiing as their only avenue to spiritual backcountry experience expressed a lower rate of the consequence tranquil (17%) than the overall pool (32%). The group who's membership named a form of skiing and one other backcountry activity as an avenue to a spiritual experience was not markedly different from the overall.

Figure 4.14. Hierarchical value map for spiritual backcountry experience – all group (*n* =

25), cutoff level 2 with 77% of associations represented.

Figure 4.15. Hierarchical value map for spiritual backcountry experience – skier group (*n* = 19), cutoff level 1 with 100% of associations represented.

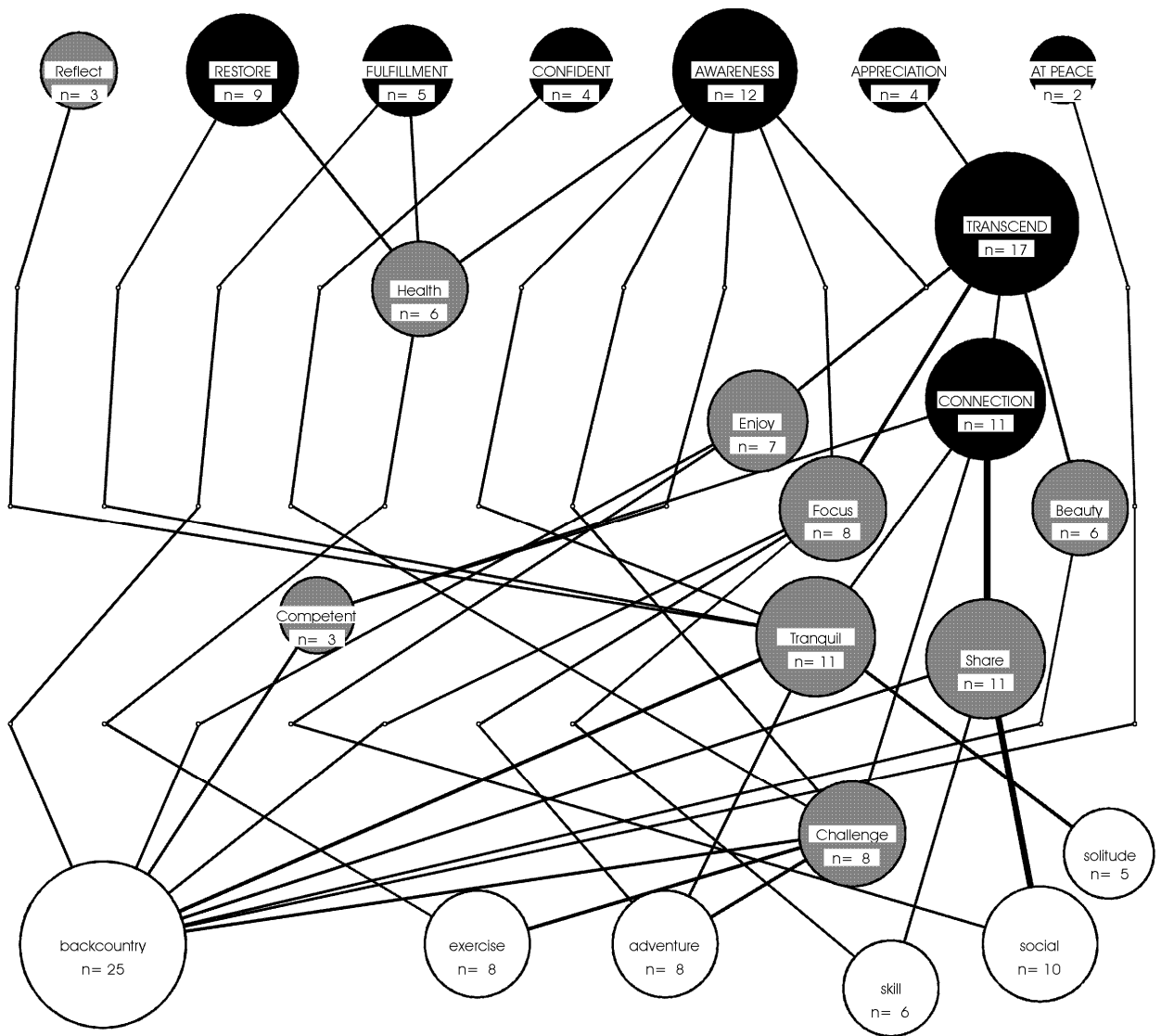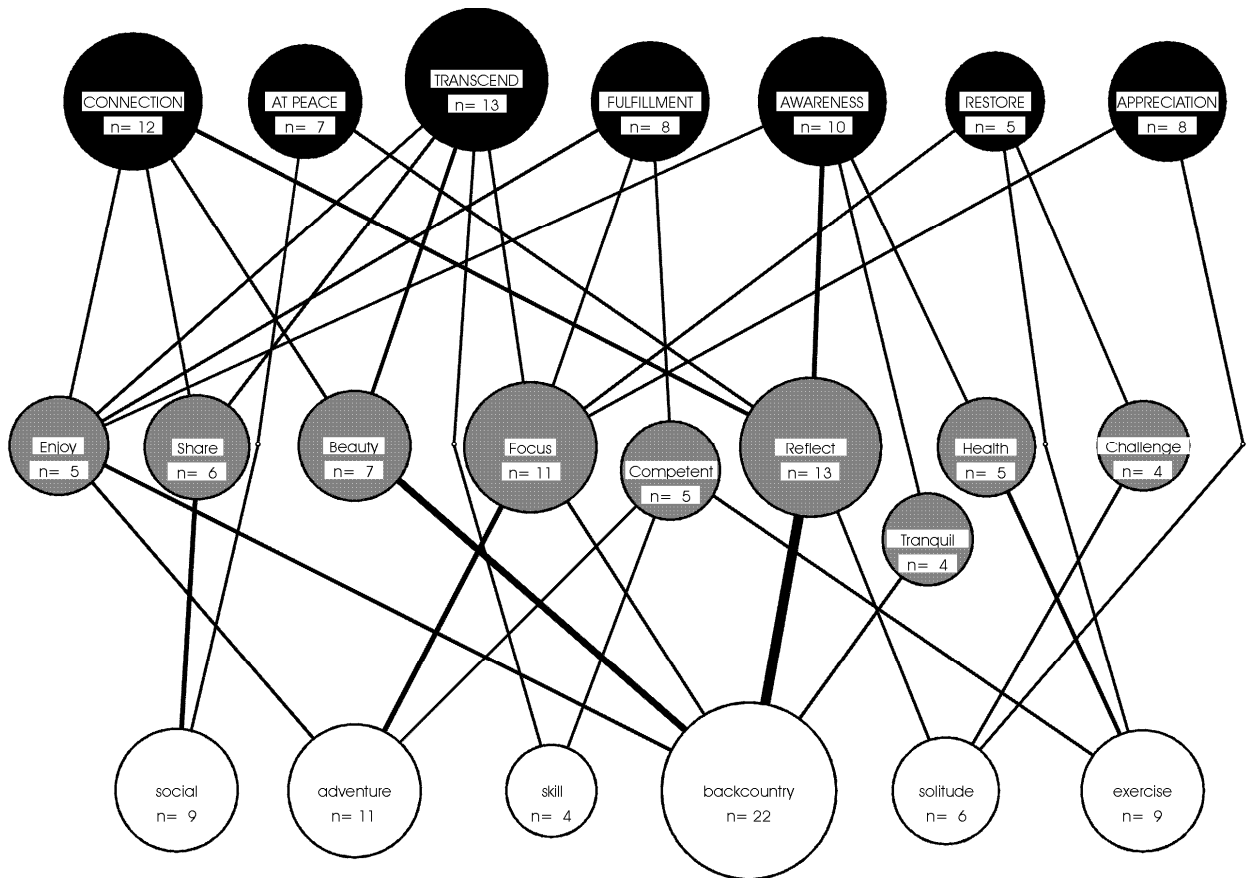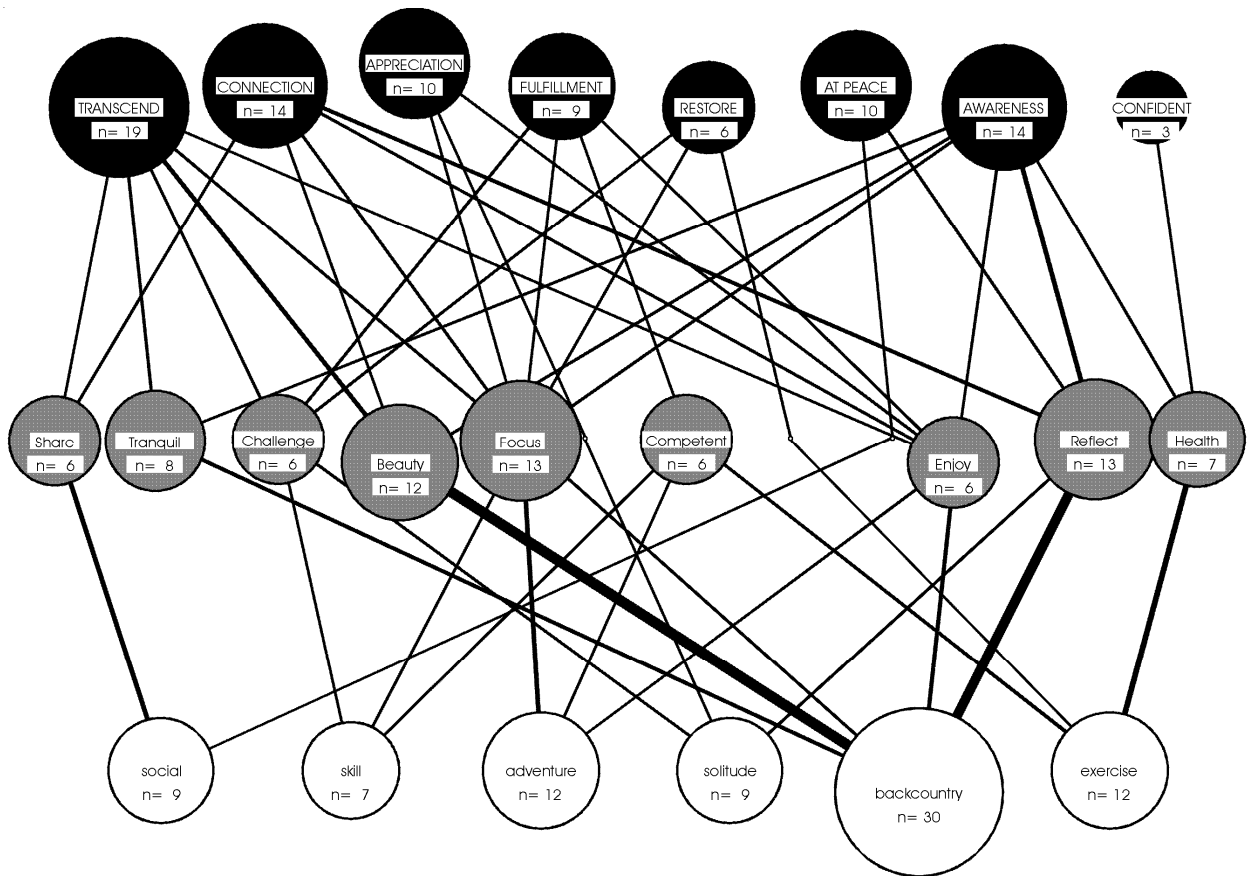*Figure 4.16.* Hierarchical value map for spiritual backcountry experience – skier + 1

group (*n* = 32), cutoff level 2 with 70% of associations represented.

Skill Level for Spiritual Backcountry Activity

Informants were asked to classify their skill level relative to the backcountry activity, or activities, that they referenced as avenues to a spiritual backcountry experience. The scale for self-classification mirrored the North American scale of self-classification for skier ability: beginner, intermediate, advanced or expert. Thirty-two informants identified as either advanced or as expert ($n = 28$) in their level of skill. No certainty of actual difference between these classifications was available, however those self-classifying as advanced frequently commented that they would not consider themselves to be an expert. The cutoff level for the advanced group was 2, representing 79% of the associations. The cutoff level for the expert group was 1 representing 100% of associations. Graphical and numerical data were consulted to provide an analysis of similarities and differences.

Figures 4.17 and 4.18, advanced and expert skill levels, respectively, show a number of differences, while the hierarchical value maps (HVM) for both the expert and advanced groups included all of the ACV concepts. A dominant attribute, consequence, and value (ACV) chain, the social attribute linked to the share consequence linked to the connection value, is evident for the advanced group. This chain differs from the expert group in that the expert group did not express a link between the social attribute and the share consequence. However the experts did express a dominant link between the share consequence and the connection value. Other dominant links expressed by the advanced group were between the value of transcend and the consequences of beauty and focus. Also for the advanced group, there was a dominant link between the attribute of backcountry and the consequence of tranquil, and a second dominant link between the

exercise attribute and the challenge consequence. One other difference in dominant links between the groups, was the link between the backcountry attribute and the tranquil consequence for the advanced group and between the backcountry attribute and the beauty consequence for the expert group. There is no basis from which to explain these differences.

The numerical data in Table 4.10 and Table 4.11 reveal similarity between the advanced group and the overall data. Two differences between the expert group and the overall group were identified from these tables. The experts had higher expressions for both solitude, 39% compared to 19% overall, and for health, 43% compared to 22% overall. The differences identified were reflective of the relative frequency with which a given ACV concept was expressed in relation to the others. As before, while these differences are noted in this analysis, there is no evidence for explaining these differences.
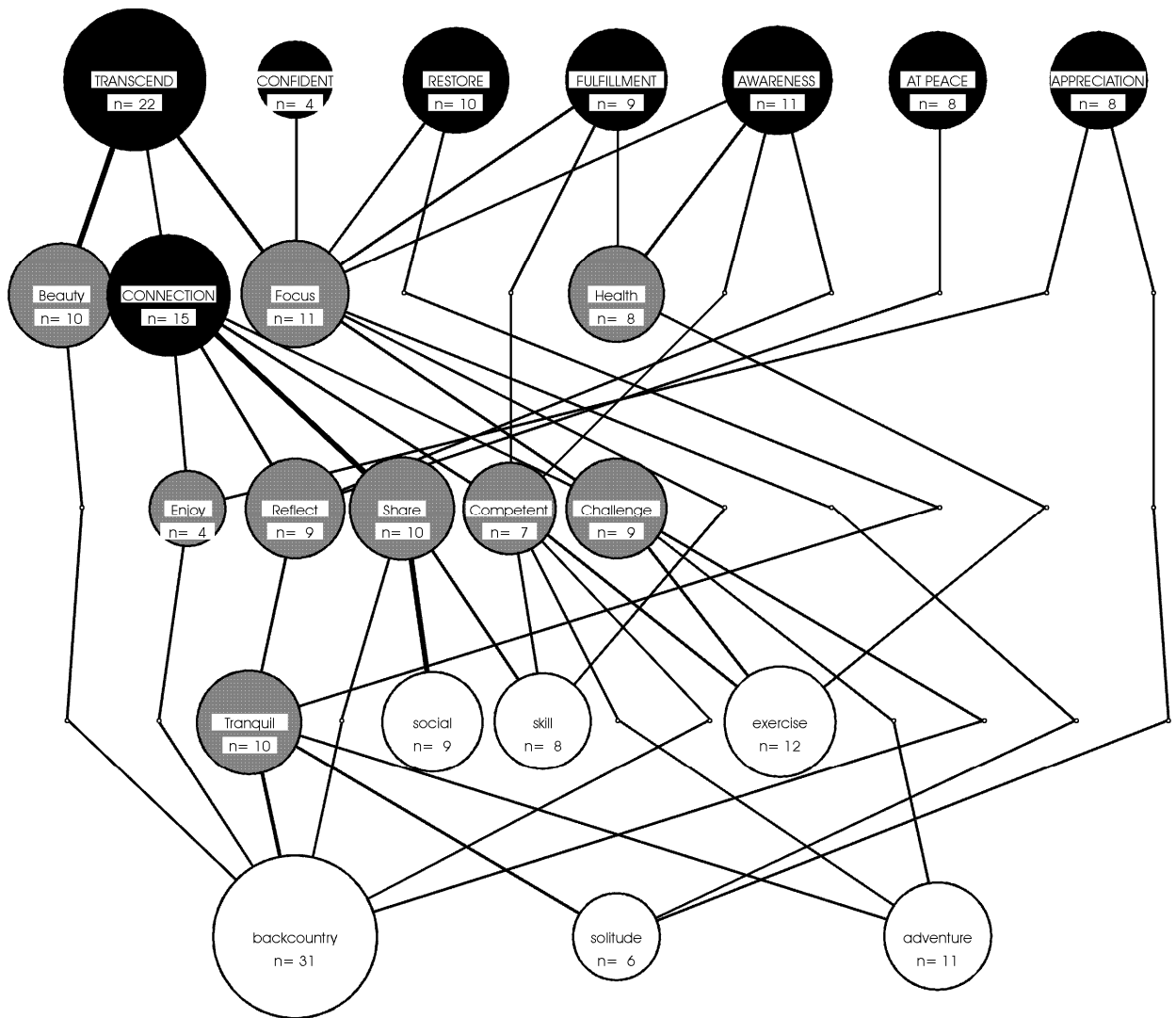
Figure 4.17. Hierarchical value map for spiritual backcountry experience – advanced

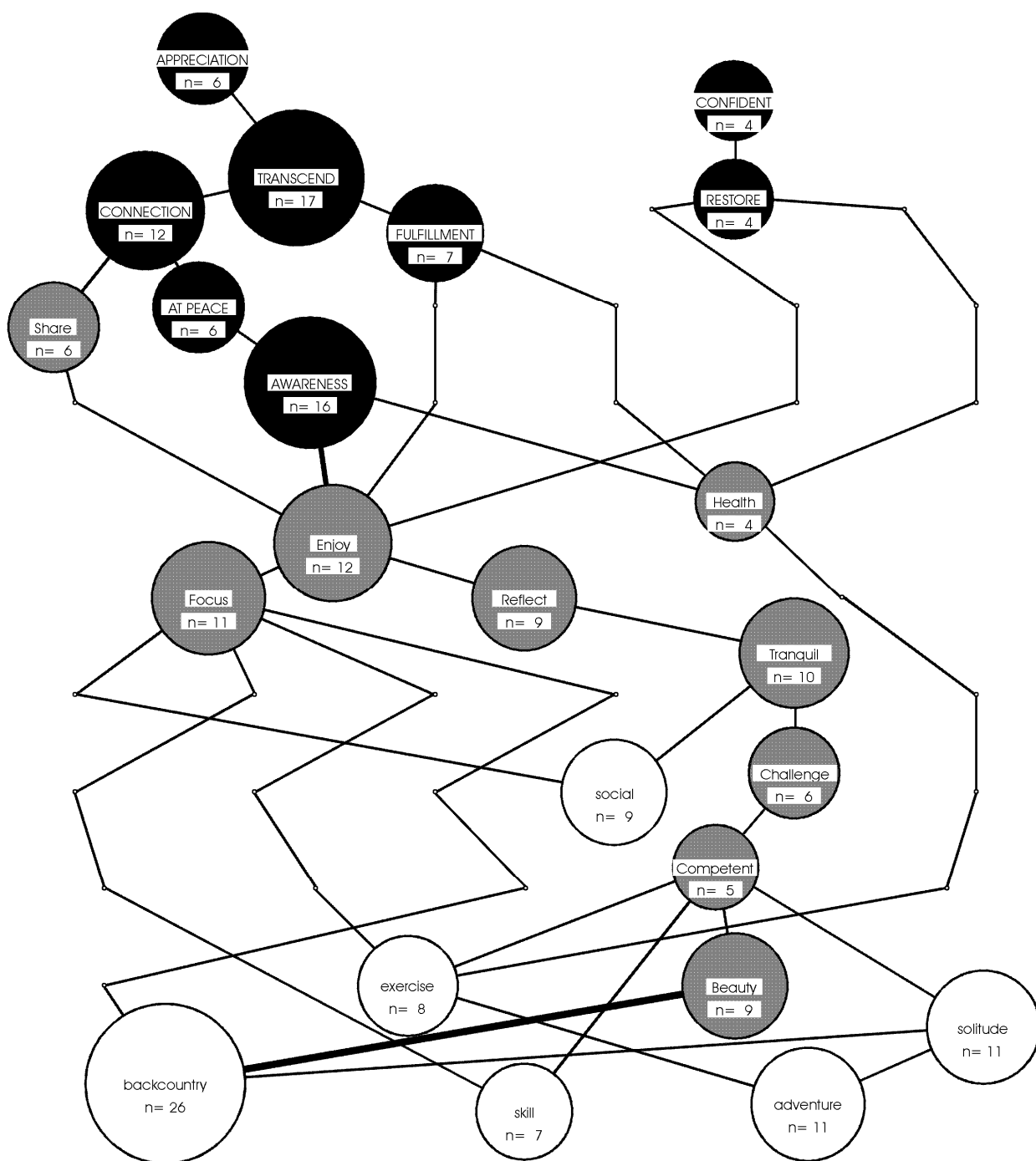skill level (*n* = 32), cutoff level 2 with 79% of associations represented.

Figure 4.18. Hierarchical value map for spiritual backcountry experience – expert skill

level (*n* = 28), cutoff level 1 with 100% of associations represented.

Chapter 5

SUMMARY, DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

A pool of 63 informants participated in interviews that focused on what they meant when describing a backcountry experience as spiritual. The data were analyzed by using hierarchical value maps and frequency and percentage comparisons to examine the attributes, consequences, and values expressed in relation to the meaning of spiritual backcountry experiences. In addition, the data analysis sought to understand the expressed relationships between the attributes, consequences, and values. This chapter first summarizes the study and provides a discussion of significant findings. Related implications from this research, and recommendations for further research are then discussed.

Summary of the Study

The topic of this study was selected in order to better understand the assertion that backcountry adventures are avenues for spiritual experience. The study specifically examined the spiritual meanings that a backcountry adventure experience had for individuals. To address the research purposes, means-end theory and analysis were applied. Means-end theory and analysis have developed as a way to understand decision-making in relation to experiences. Attributes of an experience provide the informant with certain benefits or consequences. In turn, those benefits or consequences have some real or perceived value. Means are activities and ends are valued outcomes: experiences or

states of being (Gutman, 1982). One value in applying means-end theory is that the content analysis phase serves as a bridge between the qualitative interview data and the quantitative hierarchical value map. The hierarchical value map both provides for meaningful interpretation of the data and, by virtue of the amalgamation of a number of different interview responses, serves to control for some level of inaccuracy resulting from interpretation of the interview data (Reynolds & Gutman, 1988). Thus, the method provides for overall understanding of the attributes, consequence, and values (ACV), and the associated relationships between the ACV concepts. Means-end analysis is limited in the ability to understand differences outside of those reflected by differences in ACV concepts. To aid in the interpretation of the data, two conceptual frameworks for spiritual development were established through a review of literature.

The first framework provided a basis for understanding spirituality from a psychological perspective. The second framework provided a basis for understanding spirituality relevant to a backcountry adventure.

Summary of Purpose

The purpose of this study was twofold. The first purpose was to establish an understanding of the intended meaning when a backcountry adventure was described as spiritual. In achieving this understanding it was important to identify the relevant attributes, consequences, and values of the experience. A second purpose of the study was to better understand the relationships between these attributes, consequences, and values. In achieving this second purpose, an analysis of subgroups of informants was important for identifying any differences or similarities between the means-end chains for

these groups. The subgroups examined were based on gender, age, years of backcountry experience, type of activity leading to spiritual experience, and level of skill associated with that activity.

Summary of Interview Procedures

Interviews (*N*=63) were conducted in the region of Teton Pass, WY. The majority (*n*=61) of interviews were done at a trailhead location in the parking lot at the summit of Teton Pass. The interviews followed the procedures for standard means-end research.

After reviewing a study information sheet (Appendix B) and consenting to participate, informants completed a demographic survey form (Appendix C) and then participated in an interview. Interview data were recorded as notes on a form that provided the outline for the means-end hierarchy of attributes, consequences, and values (Appendix D).

Summary of Data Analysis

The data were analyzed using several steps. Information from the interview notes was entered into the LadderMap (Peffers & Gengler, 2003) software program. At this stage, content codes were developed as themes emerged from the data. The content codes were based on keywords that were synonyms for the attribute, consequence, or value concepts expressed by the informants. Content coding was evaluated in two separate stages by independent coders who were not part of the data collection or involved in the initial coding process. Differences in assignment of content categories codes were

negotiated between the coders and the researcher. Inter-rater reliability was very high (99.22%).

An implication matrix, illustrating the number of times that content codes were associated with each other, was generated as the basis for a producing hierarchical value map (HVM). The role of a cutoff level is to remove extraneous information, such as attribute, consequence, and value (ACV) concepts that are associated infrequently across the entire informant pool, as well as for managing the aesthetic of the HVMs. Cutoff levels were established for the number of times each ACV concept was expressed and the percentage of ACV concept relationships included in each HVM. The selection of a cutoff level was based on maintaining the validity of the overall data while providing HVMs that were interpretable. The complexity of the HVMs generated in order to address research questions one, three, four and five was a result of using the standard means-end protocol of a cutoff level not greater than 5% of the sample size or 70% of the ACV concept associations. Use of a higher cutoff level equal to 10%, in the case of the analysis for the second research question, was done to aid in interpretation of data. The higher cutoff value did not alter the underlying data. Rather, the higher cutoff value simply allowed the dominant linkages between ACV concepts to emerge from the more complex illustration generated at the lower cutoff level. The result was a more pronounced illustration of the ACV relationships. Only those ACV concepts that are more frequently associated appear when a higher cutoff level is used. Because of the interrelated nature of the concepts across all informant and demographic groupings, a table of frequencies and a table of percentages were developed in order to aid in analysis

of differences and similarities between demographic subgroups as well as between these subgroups and the overall data.

Interpreting the hierarchical value maps was completed by examining the attribute concepts near the bottom, the consequence concepts in the middle, and the value concepts near the top of each map. Each ACV concept included in the map is represented by a circle that was proportional to frequency of expression in the interview. Lines of varying thickness link these circles: the thicker the line, the stronger the association between two concepts. Thicker lines were recognized in the present study as dominant linkages or associations. The sizes of circles and thickness of lines on the map provided for understanding of important concepts and relationships. The overall shape of a map is not meaningful, per se.

Summary of Findings

Analysis of the data was used to address the five research questions. Eighteen HVMs were generated, two for the overall data and one for each of the sixteen subgroups. These hierarchical value maps were interpreted visually, based on circle size and line thickness, and numerically based on frequency and percentage of a concept's expression.

Research Questions Addressed

The study both identified elements that contribute to the meaning of spiritual as a descriptor of backcountry adventure and identified the relationship between the attributes, consequences, and values associated with a spiritual experience. Five questions guided

the process of the study. Means-end theory and analysis provided answers to these questions. Data were collected through interviews. Informants confirmed that a summary of the values expressed by them reflected what they meant by the use of the term spiritual to describe a backcountry experience.

Question 1:   What are the attributes, consequences, and values being expressed when the term spiritual is used to describe the experience of a backcountry adventure?

A list of attributes, consequences, and values (ACV) emerged as the data were coded for analysis. A total of 23 content codes, or synonyms, emerged for the different attribute, consequence, and value concept categories. There were six attribute categories, nine consequence categories, and eight value categories (Table 4.6 and Figure 4.1).

The eight values identified are representative of the meaning that informants ascribe to the term spiritual when describing a backcountry adventure as spiritual (i.e. transcendence, greater relational connection with others, increased awareness, sense of fulfillment, re-creation, sense of appreciation and gratitude, being at peace one's self and life, and greater self-confidence). The six more concrete aspects of the experience (i.e. attributes) lead to the nine benefits (i.e. consequences). The result of these consequences is valuation of those benefits. This evaluation was expressed as the value concepts and reflects the meaning derived as a result of a spiritual backcountry experience.

The identification of these ACV concepts can be used in research to refine theory and understanding as well as to inform practice. The value concepts provide an empirical basis for a definition of the term spiritual.

Question 2:   What are the means-end relationships between the attributes, consequences, and values?

The goal of this second research question was to identify the dominant

relationships between ACV concepts. A hierarchical value map (HVM) provides a

graphical representation of the relationships between attribute, consequence, and value

(ACV) concepts. Thicker lines on a HVM illustrate dominant links between ACV

concepts, or the means-end chain.

All attribute, consequence and value concepts were deemed important to the

question. The attribute concepts associated with the dominant ACV chains were the

natural backcountry setting, the adventure activity, the social nature of the experience,

use of skill, and exercise; and the mental and physical exertion involved. The

consequence concepts associated with the dominant ACV chains were an increase in

focus, an awareness of beauty, challenges, tranquility, the opportunities for reflection,

sharing, enjoyment, and wellbeing. The value concepts associated with the dominant

ACV chains were transcendence, heightened awareness, a relational sense of connection

to both nature and others, appreciation, and being at peace with oneself.

The strongest associations represented are discussed in relationship to the means-

end chains generated from 40% of associations at a cutoff level of 6 (Figure 4.2). There

were four prominent attribute, consequence, and value (ACV) chains identified. The first

chain is adventure–focus–transcend. The second chain is backcountry–beauty–

transcendence. In the third chain is backcountry–reflect–awareness. The fourth ACV

chain is social–share–connect. There were also three attribute to consequence,

representing the connection between a more concrete action, or characteristic, and a

benefit: exercise–health, backcountry–enjoy, and backcountry–tranquil. There were two

consequence to value chains: beauty–transcend and reflect–awareness. Implications for the presence of dominant chains are addressed in the forthcoming discussion section.

Question 3:   What are the differences in the means-end structures for subgroups of informants as defined by difference in age, gender, ability, and experience?

Groupings based on possible antecedent and demographic differences were purposefully identified prior to data collection, summarized in the Limitations section of Chapter 1. Final subgroups were the result of the characteristics of the informant pool. Subgroups were compared within a group. Findings from subgroups were also compared to the overall findings. Comparison was based on graphical and numerical illustrations. As was recognized in the data analysis, groups expressed differences in specific dominant relationships illustrated in the hierarchical value maps. There was however, no evidence for explaining differences. The differences are noteworthy for the implications that they contain for practice, theory and future research, discussed later in this chapter. Other differences identified were reflective of the relative frequency with which a given ACV concept was expressed in relation to the others for a given grouping. While these differences were noted in this analysis, there is no evident basis for an explanation of these differences. A summary of the findings from data analysis follows.

There were three age subgroups with all but the older group expressing the same attribute, consequence, and value concepts as the overall informant pool. The difference was in the older group, aged 36-64 years (*n*=18), where the value of confident was not expressed. The social-share-connection chain was strong for the 26-35 year old group (*n*=32). For the youngest group of 11 informants (18-25), the values of transcendence and awareness were linked only to the value of connection and not to other consequences.

Men (*n*=42) and women (*n*=21) expressed all ACV concepts. The chains in the male group were more succinct than those for the females. Also, men expressed a strong connection between the value of social and the benefit of share. For men there was a dominant link between the benefits of beauty and focus and the value of transcendence. Implications for the presence of dominant chains for men and women are addressed in the forthcoming discussion section.

Ability level was based on an informant's self-reported skill level in relation to the activities reported as being avenues to spiritual experience. The groupings consisted of advanced (*n*=32) and expert (*n*=28) informants. The only differences in findings between these two groups and between these groups and the overall data were dominant linkages for several of the ACV associations. The advanced grouping expressed an ACV chain of social–share–connection, as well as transcend–beauty, and transcend–focus.

Experience groupings were the result of data collected from informants in response to the question about their total number of years of backcountry experience. Three groups, 2-7 years (*n*=22), 8-14 years (*n*=22), and more than 14 years (*n*=19) of experience, were used as a reflection of a continuum from less to much more experience. The more experienced group did not express the value of confidence. With the exception of no value of confident for the more experienced group, all three groups expressed all ACV concepts and there were no notable differences in dominant linkages.

The focus of means-end analysis and theory is the identification of associations between attributes consequences and values. These associations represent cognitive process of decision-making or valuation. Thus, the value of the findings was the recognition of ACV concepts and dominant associations. Implications for the presence of

dominant chains, and the absence of the value confident from the ACV chains, for specific groups, are addressed in the forthcoming discussion section.

Question 4:   What are the differences between means-end structures based on mode of activity, specifically alpine skiing, telemarking, and snowboarding?

Twenty-six alpine skiers, 18 telemark skiers and 16 snowboarders participated in the study. Telemark skiers did not express the value of confident, however the group did express all other concepts. Alpine skiers and snowboarders expressed all of the ACV concepts. Dominant linkages for alpine skiers were between social and sharing, reflection and awareness, and both the consequences of beauty–transcend, and challenge–transcend. Also for alpine skiers, one complete ACV chain was dominant: adventure-focus-transcend. Snowboarders and telemark skiers expressed values in association with other values, as opposed to values in association with consequences, suggesting that one value begets other values. Alpine skiers expressed values only in relation to consequences. Implications for the presence of dominant chains, and the absence of the value confident from the ACV chains, for specific groups are addressed in the forthcoming discussion section.

Question 5:   What differences are there between means-end structures based on the type of activity referenced as spiritual?

The type of activity that informants referenced, in relation to the spiritual experience they described, were placed into four categories. Of the four categories, three were used in analysis (i.e. all, skier, and skier + 1). The small group of six informants that referenced a specific activity that was not a form of skiing was excluded from group analysis.

All three groups had dominant links in common across the groups. The attribute of social was linked to the benefit of share, and the benefit of reflection was linked to the value awareness. The only dominant link the all group had that the other two did not express was the link between the benefit of share and the value of connection. The all group also expressed a dominant link between adventure and challenge. The all group and the skier + 1 group expressed all ACV concepts. The skier group did not express the value of confident. The skier group and skier + 1 group were similar in dominant links between adventure–focus, backcountry–reflect, backcountry–enjoy, and backcountry–beauty. Both of these groups also expressed a dominant exercise–health link. A dominant linkage for the skier and skier + 1 groups was a completed chain: backcountry–reflect–connection. The all group expressed only the second half of this chain: reflect–connection. Implications for the presence of dominant chains, and the absence of the value confident from the ACV chains, for specific groups are addressed in the forthcoming discussion section.

In summary, the findings addressed both the first and second purposes of the research, as mirrored in research questions one and two. Research question one, the attributes, consequences, and values (ACV) associated with the meaning of the word spiritual when used to describe a backcountry experience was answered with the findings (Figure 4.1 and Table 4.6) of six attributes, nine consequences, and eight values. Research question two was addressed in the findings (Figure 4.2) where dominant ACV relationships associated with a spiritual backcountry experience were identified. The findings related to research questions three, four, and five revealed no differences between the groupings that could be addressed with the research technique applied in the

present study. The researcher hypothesized that the absence of the expression of the value confident, by some groups, was reflective of the literature in that, for whatever reason, the informants in those groups either did not seek or achieve confidence as a value related to their description of a backcountry experience as being spiritual. Dominant chains in the overall data and for specific groups were identified and will be discussed in forthcoming sections of this chapter. Next the findings are discussed in relation to other literature.

Discussion

Identification of the eight values (Table 4.6) associated with a backcountry experience provides an understanding of the meaning intended when a backcountry adventure is described as spiritual. A finding from the present research is that the value resulting from the attribute and consequence relationship identified herein is spiritual development. The value of this finding is a contribution to the development of theory and practice based on this new understanding. The relationships between these attributes and benefits are not new to the literature (Driver, Brown & Peterson, 1991). A contribution of the present study is the identification of the meaning that these relationships can have for individual spirituality.

Identifying the dominant associations revealed the prominent ACV relationships expressed by the informants. These ACV relationships provide the basis for the implications generated from the findings of the present research. Implications for research, practice, personal development, and marketing are discussed in the upcoming Implications section . Differences in the dominant linkages recognized between, or

across, various subgroups were not considered to be enlightening. The data and findings are reflective of personal growth in relation to the interpretation of meaning. The relatively subtle differences in strength of association between two or more ACV concepts for a specific sub grouping, as opposed to the exclusion of ACV concepts or entire chains, could not be explained with the current technique, nor were there indications in the literature that supported and understanding of these differences.

The value confident was not expressed by four of the subgroups: the $36 - 65$ year old group, the telemark skiers, the group with more than 14 years of backcountry experience, and the skier group (i.e. those who reported some form of skiing as an avenue to spiritual experience). The value confident was expressed by a small number (n=8, 13%) of informants in the total pool (N=63). Given the overlap that exists between these four groupings, and across other demographic characteristics, it was not possible to draw a meaningful conclusion from the analysis. Understanding this difference was not possible given the data collected. Thus, it seemed reasonable for the researcher to conclude, based on the discussion of the literature presented during relevant sections of the Analysis of Data, that this value, confident, plays some role in spiritual development. However, the role of this value seems most likely to fall at the front end of a continuum for spiritual development that would suggest that confidence is a precursor to backcountry adventures. Recalling that backcountry adventures, by operational definition of the present research, require effort and skill and that these experiences take place in an environment of real risk, it seems reasonable to conclude that perhaps these individuals perceive that they already have a sufficient level of confidence and are thus more intent on achieving other values, those that are expressed with greater frequency in the present

study.

The discussion of these data compares the current study with the small body of research that includes spirituality in relation to outdoor adventure and to backcountry or wilderness settings. In addition, the relationships of the present work to research on means end theory is discussed.

Research on Spirituality and Adventure Recreation

The purpose of the present research was rooted in an absence of an empirically based definition of the term spiritual in the body of research in outdoor recreation and adventure. Stringer & McAvoy (1992), presented a list of aspects of a spiritual experience, but did not offer a definition. None of the research literature discussed in the present study has offered a definition of what informants meant in using the term spiritual to describe a backcountry adventure.

Confirmations Related to the Spirituality and Adventure Recreation Literature

The following discussion identifies the findings in the literature that are related to those of the present study. Specifically, the discussion identifies those attribute, consequence, and value (ACV) concepts found in previous research, and also identifies the ACV associations found in the prior research. The means-end chains identified (Table 4.10, Figure 4.1 and 4.2) in the findings of the present study confirm the findings of the prior research. The associations confirmed are: four attribute, consequence, and value chains (i.e. adventure–tranquil–awareness, backcountry–tranquil–awareness, backcountry–reflect–awareness, and solitude–tranquil–awareness); nine attribute to value

chains (i.e. solitude–transcend, adventure–transcend, backcountry–transcend, backcountry–at peace, backcountry–awareness, backcountry–fulfillment, social– awareness, social–connection, and social–transcend); one attribute to consequence link (i.e. exercise–health); and one consequence to value link (i.e. challenge–transcend). The discussion of confirmations is followed by a discussion of contributions that the present research makes to the literature on spirituality and backcountry recreation.

Heintzman & Mannell's (2002) study of leisure in relation to spirituality, coping, and wellbeing identified awareness of the spiritual dimension of life, the value of transcendence; and "sense of place", the attribute that is the backcountry setting in the present study. While "sense of place" was related to spiritual experience, the authors were unable to detect any significant role of the environment. Spiritual benefit was also associated with the consequence of health, in the relation to the attribute of exercise.

The findings of a study of the effects of desert jeep tours on the benefits to non-motorized recreationists (Behan, Richards & Lee, 2001) identified the attribute of the backcountry as an essential component of the spiritual development. The research setting was the desert.

Other literature (Harvey & Williams, 2002) found transcendence among recreationists in the forest environment. Reflection was a related consequence of the natural setting. The attribute of adventure was linked with the value of transcendence. The consequence of challenge was also linked with transcendence. The value of sense of fulfillment was identified.

Beck (1987), in a phenomenology of river recreation, looked specifically at optimal experience in a wilderness whitewater adventure. Spirituality was one of nine

dimensions of optimal experience that were identified. The study found the value of transcendence in relation to the attributes of the backcountry, adventure, and the social dynamic.

The relationship of the attributes of backcountry to the value of transcendence, self-awareness, and being at peace, was identified in the longitudinal study of the Outdoor Challenge Research Program (OCRP) (Kaplan & Kaplan, 1983; Kaplan & Talbot, 1983; Kaplan, 1984). The OCRP project found the attribute of backcountry was also linked to the consequence of tranquility and reflection, which were both, linked to the value of awareness. The attribute of adventure was linked to transcendence. To a lesser degree the OCRP project found the attribute of social was associated with self-awareness and also that attributes of adventure and solitude were linked to the consequence of tranquility. The overall conclusions were that spiritual growth, or increased self-awareness, and sense of peace, resulted from the wilderness adventure. The ten-year OCRP project also noted an overall similarity that is found in the present study, consistency of findings across groups and informants.

The present study confirmed the conclusions from Riley & Hendee's (1998) ten-year longitudinal study of vision quests. A spiritual experience involved a relationship between the backcountry attribute and the values of self-awareness and connection.

Fredrickson and Anderson (1999) essentially confirmed the findings of Stringer and McAvoy (1992) that the attributes of social dynamics as well as diverse environments contribute to spiritual experiences. Stringer & McAvoy sought to define and identify the spiritual aspects of backcountry adventure. The resulting list of aspects to the experience is equivalent to the transcendent value in this study. Overall findings of

their work indicated that the attributes of a unique combination of landscape and differing

levels of social involvement facilitated a transcendent value of the experience for many

of the informants. The consequence of challenge in relation to the value of transcendent

was also identified in Stringer and McAvoy's work.

Young & Crandall (1984) found that the attribute of the Boundary Waters Canoe

Area backcountry could lead to self-actualization. Self-actualization is a term that is

synonymous with the value of fulfillment. Zequeira-Russell (2002) examined a

wilderness leadership program. Findings of their study, confirmed in the present research,

indicated that the attributes of solitude and backcountry were related to the value of

transcendence.

In summary, the present research confirmed all of the attribute, consequence, and

value (ACV) relationships identified in the literature discussed. In addition to these

confirmations, the present research makes several contributions to the literature on

spirituality and backcountry adventure recreation and to the literature on means-end

theory.

Contributions to the Spirituality and Adventure Recreation Literature

The primary purpose of the present research was to establish an understanding of

the intended meaning when a backcountry adventure was described as spiritual. The

spiritual nature of backcountry adventures was described by the informants as valued for

the associated transcendent experiences, increased self-awareness, increased connection

to nature and others, increased sense of appreciation or gratitude, sense of peace, sense of

fulfillment, feeling of being restored, and increased confidence. The value of transcend

was expressed by 63% of informants, while the values of awareness and connection were expressed by 46% and 43% respectively. Four of the other five values were expressed by between 22 and 30 percent of informants. As noted previously, the value confident was expressed by 8 percent. The findings of the present research and the definitions for each of these terms (Table 4.6) seem to indicate that the overall meaning of spiritual is representative of a development process. The development is grounded in the setting and individual competencies and is represented as a sense of heightened awareness and connection that goes beyond the individual's relationship with the self. Spiritual development also seems to extend in something representative of a continuum from the immediate surroundings, experiences and relationships; to a greater sense of self; to a greater awareness of relationship and all things; and finally to a sense of relationship with something greater and unseen (i.e. "the universe", "God", "something greater", etc…). This thinking is representative of the findings of Harvey & Williams (2003) in relation to a continuum of transcendent experiences in forest environments. The findings of the present research contribute to the identification of a construct for spirituality that consists of eight values. These values can be used in further research and development of theory as a way to better understand the meaning (i.e. value) that individuals place on the attributes and consequences of a backcountry adventure experiences that they consider to be an avenue for their spiritual development.

The second purpose of the research was to better understand the relationships between these attributes, consequences, and values. Figure 4.1 provides a visual illustration of a web of associations between the attributes, consequences, and values (ACV) identified in the present research. Because the ACV associations identified in the

present findings are representative of spiritual development, and also because these findings also represent an amalgamation of data expressed over a number of individuals, it seemed reasonable to conclude that this web of ACV associations reflects literature in which the authors suggest that spiritual paths are very individual journeys (Alma & Zock, 2002; Campbell, 1988; Csikszentmihalyi, 1993).

Findings of the present research also identified associations between ACV concepts that represent dominant links in relation to spiritual backcountry experiences (Figure 4.12). Of the 12 strong connections and eight weaker connections, many were recognized in the body of literature previously discussed. Of these 20 ACV connections, 12 had not been identified in the literature. Spiritual ACV associations recognized for the first time by this research include the social, sharing, connection means-end chain; the backcountry, beauty, transcendence chain; the adventure, focus, transcendence chain; the backcountry, enjoyment, awareness chain; the backcountry, focus, transcendence chain; and two direct attribute to value chains, skill to transcendence and adventure to awareness

In relation to Mitchell's (1983) study of perceptions of mountain climbers, the present study makes a contribution by reaffirming the perception of the American public, that the attributes of backcountry and adventure are linked to the consequence of challenge which is in turn linked to some value set termed spiritual development. Spiritual development is found in the values of the present study: an increase in self-awareness, an increase in connection, and an enhanced relationship with others and nature.

Contribution to Theory on the Spiritual Aspects of Wilderness Experiences

The present research affirms Johnson's (2002) proposal for a hierarchy of benefits that result from experiences in wilderness settings. The interrelated aspects of the Johnson model identify a hierarchy of benefits that are seen as the result from experiences in the wilderness. The following summary expresses Johnson's model in terms of the attribute, consequence, and value (ACV) relationships identified in the present findings. First in the Johnson model are the enduring and sublime attributes of wilderness, termed backcountry and solitude in the present study. These attributes are linked to the consequence of beauty. Second, the attributes of adventure and skill are linked to the consequence of competence that results from interacting with the backcountry environment. Third, the consequences of beauty and competence are linked to the at peace value. Finally, the value self-forgetting, termed self-transcendence in the present study, results as the three prior attribute, consequence and value chains are linked together as an ACV chain (i.e. first, backcountry–beauty; second, adventure, skill & backcountry–competence; third, beauty–competence–at peace; finally, the sum of the first, second, and the third chains resulting in the value transcend).

The findings of the present research suggest the addition of several ACV chains as a way to enrich the model proposed by Johnson. The first addition is the role of an ACV chain: social–share–connection. The second addition is the linkages from the consequences of reflection and tranquility to the awareness value. Finally, the present findings indicate that the role suggested by Johnson, of the adventure and skill attributes, can be enhanced with recognition of the understanding of the role that the exercise–

health, attribute–consequence associations, link plays in contributing to the values of backcountry experiences that are considered to be spiritual.

Contributions to the Extension of Means-End Theory

The present research adds to the body of literature on means-end theory. There are several studies using means-end research in the outdoor adventure research areas of experiences and involvement with ropes courses (Goldenberg, et. al., 2000; Haras, Bunting & Witt, 2006) as well as Outward Bound course components (Goldenberg, McAvoy & Klenosky, 2005) and Outward Bound employee perspectives on service learning (Goldenberg, Pronsolino & Klenosky, 2006). This study was unique in that it is the first to utilize means-end theory in exploring the meaning of a highly abstract construct (i.e. spirituality) used to express the values of a backcountry adventure. Other means-end literature has recognized values that are considered to be more highly abstract. Means-end theory has been applied in order to explore the relationship between consumer knowledge and subsequent levels of involvement in a product (Mulvey, Olson & Celsi, 1994), the influence of affective state on processing of information (Huber, Beckmann & Hermann, 2004) and on connecting product attributes with self-identity (Walker & Olson, 1991).

The present study is the first study to apply means-end theory to understanding meaning of adventure recreationists' experiences. The study is also the first to apply means-end theory to an experience that occurs in an unsupervised backcountry adventure setting where there is not the presence of a person with some level of expertise, perceived or actual, who has a responsibility for maintaining a pre-established level of safety during

an experience. In the first case, the ends may exceed the individual's means, and self-regulation and responsibility are ultimately her or his own. In the second case there is a greater sense of security in the form of the safety net that the expert supervision represents. In this second case, while the ends may exceed the personal means, the ultimate responsibility in these situations falls to the expert. The present study offers no insight into this dynamic. However it is suggested by the researcher that this perception of risk and the role of ultimate responsibility may lead to a deeper level of introspection, and thus more comprehensive ACV chains on the part of the individual who does not have a safety net. Given the focus of the present study and the relationship between introspection, awareness and spiritual development, identification of these possible influences on introspection provides the basis for questions that would lead to interesting, and perhaps useful, investigations of the nature of these concepts in relation to individual spirituality. The present study confirmed the benefit of applying means-end theory to experiences that occur in backcountry settings (Goldenberg, McAvoy & Klenosky, 2005).

Implications

The results of this research have implications for resource management practice and policy, for practitioners and mangers in the field of adventure programming and adventure education, and for individuals. There are also implications for marketing of experiences or products.

Implications for Resource Managers

The usefulness of the present findings for resource managers lies in the recognition of the role that the solitude, tranquility, and beauty of a backcountry setting have for personal wellbeing and spiritual development. Backcountry settings provide the avenue for the use of skill in the context of adventures that lead to spiritual development for individuals. These experiences also provide opportunities for physical and mental exercise that enhance health and wellbeing, and serve personal re-creation through opportunities to restore the sense of self (Table 4.6, Figure 4.1 and 4.2).

The present study provides evidence of the role that adventure opportunities, tranquility, solitude, and beauty play in the values that result from a backcountry experience. The evidence supports decisions for the management of issues related to access, conflict, crowding, education, and stewardship. This knowledge will also help resource managers develop a broader set of interpersonal skills that might be used to enhance interactions with individuals and the public, based on evidence of the need of some backcountry users for solitude, tranquility, opportunities for skill development, and adventure.

Implications for Adventure Recreation and Education Programs

Practitioners and mangers in the field of adventure programming and adventure education can utilize these findings to better structure programs around the prominent attribute, consequence, and value (ACV) chains (Figure 4.2). Awareness of the dominant links in the ACV relationships identified in the present study can be used to enhance the design and facilitation of programs that are focused on offering a spiritual outcome from

backcountry adventure experiences. These same organizations and practitioners can apply this awareness to educational opportunities as a way to help individuals identify paths for spiritual experiences that might be best suited to their personal needs and preferences. Educational awareness about these ACV chains can be used in the training of outdoor leaders in order to developing better facilitation skills and enhanced sensitivity to individual needs and differences.

Implications for Individuals

Individuals can benefit from awareness of these findings by applying the identified ACV associations to their personal life situation, preferences, and spiritual development. The hierarchical value maps (see Figure 4.1 and Figure 4.2) represent frameworks that individuals can apply in pursuit of their own spiritual development, given that they have an interest in pursuing backcountry adventure to such an end. For example, a less experienced individual may not be aware of the benefits of reflection or focus that can be practiced during a backcountry adventure experience, or that these benefits have more dominant associations to the spiritual values of transcendent connection and increased awareness. Similar to not having a destination when going on a driving trip, without knowing where one is going, it is harder to arrive. This knowledge can also aid them in developing an understanding of the needs of others and thus lead to a broader set of interpersonal skills (Figure 4.1).

Implications for Marketing

Awareness of the ACV associations provides for targeted marketing of products or experiences for individuals or groups. These experiences can take form as expectations

surrounding formalized programs, recreation activities or programs, or destination

amenities. Not all individuals will identify with experiences that are marketed as spiritual.

However, the dominant ACV chains recognized as a result of the present research do

provide more generic frameworks for marketing strategies that recognize specific ACV

chains identified in the present study. An example would be a club or organization that

markets a social atmosphere in which participants have the opportunity to share

experiences that provide a sense of meaningful connection to others and can, in turn, help

an individual establish or enlarge a network of friends with whom a deeper relationship

can be built. Interestingly, it seems to the researcher that many apparent applications of

the ACV chain are evident across society, yet few are termed as spiritual; perhaps this is

where the true marketing opportunity lies. In addition to the implications noted, there are

suggestions for future research.

<div align="center">Recommendations for Future Research</div>

The present study generated several suggestions for future research in relation to

spiritual development. There are other suggestions for broader application to recreation

and leisure research and for considerations of methods used in means-end analysis.

Suggestions for future research include application of the research design across

different populations and activities. Questions to address include the prominence of the

antecedent of motivation for pursuing the spiritual values of backcountry adventure. It

would also be useful to obtain a larger pool of younger and older informants as a way to

confirm the findings of little difference across the age spectrum. As a body of

understanding grows in relation to the meanings that experiences have for individuals, that body would likely lead to the refinement of the understanding of the current ACV concepts and means-end chains.

One limitation of the current study was that the researcher was an insider and regular in the arena of backcountry skiing, particularly in the region where data were collected. This may have lead to overlooking the implicit understandings that have developed in language that is peculiar to the meanings associated with shared experiences in this community (Unruh, 1980). Other researchers who could collect data in environments that represent social worlds with which they are much less familiar can overcome this limitation. The challenge with this approach may be in establishing the desired level of comfort in the interview setting that would facilitate full and meaningful disclosure from informants (Reynolds & Gutman, 1988).

A question noted earlier in this section regarding possible differences between program participants and individual recreationists emerges from the findings. What role does a leader or supervisor, serving as a safety net, play in relation to an informants ability to express means-end chains that are more or less reflective of the focus and reflection associated with spiritual development? That is, is someone who has chosen a supervised situation afforded the same level of introspection as someone who has chosen an unsupervised situation and is thus more susceptible to the consequences of real risk associated with a backcountry adventure? Given the presence of the perceived safety net, has the supervised individual had to be as aware as the one on his or her own? This question alone warrants a number of interesting questions about the specifics of terminology used in the phrasing. But given the developmental focus of the research

topic, this thinking about differences between program participants and recreationists seems like a line of inquiry that is potentially rich in opportunities to better understand the basic human condition of making meaning from ones experiences.

Also relevant to the findings of the present study are several issues related to method. First is the need to introduce a multimethod approach that could better explore potential differences for which the means-end technique was not sensitive enough (i.e. statistical differences as per Harass, Bunting & Witt, 2006).

Another useful finding regarding the method used in the present study was the application of frequency and percentage tables in order to determine the differences between HVMs for subgroups and the overall findings. Given the web-like set of connections evident in many HVMs, these tables allowed for a verification of difference and similarity within the analysis of demographic groups identified in the research questions. The present research used these percentages in relation to the frequencies and the HVM illustration in order to support conclusions from the implications.

The use of a written record for the data collection inhibited a recording of the deep and rich content of the experiences that informants shared with the researcher. These data would add a level of analysis that could enhance understanding beyond the limitations imposed by the necessary content analysis stage of a means-end method. However, practical reality might suggest that the sample size be much smaller in order that the data are treated effectively in extracting desired levels of richness and depth.

Conclusion

The process of data collection and analysis has provided insight into what people mean when describing a backcountry adventure as spiritual. There is a better understanding of the relationship that specific attributes, consequences, and values have in the development of personal meaning that arises from such an experience. There is also a better understanding of the process that leads to spiritual development. The usefulness of these findings extends broadly. Researchers and the development of theory gain the basis of a construct and associated variables. Resource managers have additional support of policies for the stewardship of the natural beauty and solitude of the backcountry, as well as support for managing these resources in ways that allow for adventure and use of skill. Adventure and education programs that aim to provide the skill sets for adventures and the meeting of challenges in the backcountry setting are provided with a graphical model that can serve as a basis for structuring programs. The marketing of products and services can be focused in terms that have the potential to trigger a sense of meaning from the product description. Individuals who are so inclined, can guide their own development through the use of a self-navigated roadmap. The application of means-end theory in the context of this study represents an extension of the means-end body of work.

The components of a construct for spirituality are represented in the eight values found in the 23 content categories that were identified. These 23 categories and the associations between them are not mutually exclusive, rather they are associated in chains that connect between concrete aspects and highly abstract personal interpretations of an

experience. The present findings support the primal hypotheses put forth by White and Hendee (1999), adding support to their theory while at the same time challenging the way they think about spiritual, community, and self development as distinct components. Through the lens of the present study, those differences are recognized as part of the spiritual construct and at one level of association, represent an interrelated network of attributes, consequences, and values.

Noteworthy in the present study is that the informant base has achieved an understanding of their pursuits of backcountry adventure as having personal spiritual value. The experience of these individuals provides a roadmap, represented in the hierarchical value maps, for those who wish to pursue avenues of backcountry adventure to a spiritual destination. While there is no guarantee of arrival, to follow a recognized path that leads to a desired destination suggests better odds of arriving at that destination. Abraham Maslow studied high functioning individuals as a way to develop a framework of understanding in humanistic psychology. It seemed natural to the researcher, to extend this approach to understanding spirituality in the context of backcountry adventure.

The humanities have recognized the spiritual values that result from backcountry adventure. The present study contributes a contextual understanding of spiritual values to the body of research. An understanding that affirms these values has long been recognized outside the purview of science. As tales of backcountry adventures are recounted among friends, or to researchers, there is a better empirical understanding of the intuitive conception held in the storytellers meaning of why the backcountry adventure was a spiritual experience.

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Appendix A

Recruitment script, approved and required by the Indiana University Institutional Review Board.

"Hello, my name is Paul Marsh. I am a student at Indiana University and I am conducting research about what people mean when they describe a backcountry experience as "spiritual". Would you be willing to participate in an interview that will last 10 to 30 minutes?"

Appendix B

Study Information Sheet.   Study # _06- 11550_____

INDIANA UNIVERSITY - BLOOMINGTON
STUDY INFORMATION SHEET
Exploring "Spiritual" Experience: A Means-End Analysis of Spiritual Development
from a Backcountry Adventure

You are invited to participate in a research study.

INFORMATION
The purpose of this study is to try and determine what people mean when they describe
a backcountry experience as "spiritual". After describing an experience that you consider
to have been "spiritual", you will be asked why the different parts of the experience were
important to you. The question about "why" will be repeated for each part as a way to
better understand how these important parts are related to each other. The procedure
involves first filing out a basic demographic profile form. Next an interview will be
conducted. Interviews will last from approximately 10 to 30 minutes. Between 60 and
100 people will be asked to participate. Interview responses will only be recorded in
writing. These written records will be destroyed on May 30, 2007.

BENEFITS
The potential benefit to participants is personal growth resulting from a clearer
understanding of the personal meaning they make from the experience discussed. The
benefit to science will be a framework for theory and a definition of what is meant when
individuals describe backcountry adventure experiences as "spiritual".

CONFIDENTIALITY
All responses are confidential. No personally identifying material is recorded. If you to
participate in a follow-up interview, your name and telephone number will not be
associated with any of the research notes.

CONTACT
If you have questions at any time about the study or the procedures, you may contact
the researcher, Paul Marsh, at HPER 133, 1025 East Seventh Street, Bloomington, IN
47405-7109, (307) 690-6333, and   pemarsh@indiana.edu.

If you feel you have not been treated according to the descriptions in this form, or your
rights as a participant in research have not been honored during the course of this
project, you may contact the office for the Indiana University Bloomington Human
Subjects Committee, Carmichael Center L03, 530 E. Kirkwood Ave., Bloomington, IN
47408, 812/855-3067, or by e-mail at iub_hsc@indiana.edu.

PARTICIPATION
Your participation in this study is voluntary; you may refuse to participate without
penalty. If you decide to participate, you may withdraw from the study at anytime without
penalty and without loss of benefits to which you are otherwise entitled.

Information Sheet date: December 04, 2006

Appendix C

Demographic Information Sheet.
Date: _____

Time: _____

@: _____

Please circle appropriate responses for the categories:

AGE RANGE:
18–25   26–35   35–45   46–55   56–65   66 and older

ABILITY LEVEL:
Beginner   Intermediate Advanced Expert/Racer

Today I was: Alpine Skiing   Telemarking   Snowboarding

Today I was: Alone   With a Group

LEVEL OF EDUCATION:

High School   Some College   Associate   Bachelors   Masters   More

GENDER: Female   Male

My preference for skiing or riding areas is: Backcountry Resort

ANNUAL INCOME RANGE:

< $20,000 $20–35,000 $35,001–50,000 $50,000–$100,000   > $100,000

CULTURAL/ETHNIC BACKGROUND:

Asian   African American/ European/ Latino/   Other:
        Black   White   Latina _____

Please fill in the blanks:

Number of years of backcountry skiing experience: _____

Home ski area – a resort or backcountry location: _____

State of residence: _____ – or –

Nationality if not a U.S. resident: _____

Please supply a contact phone number if you are willing to answer questions:

Area code (_____) _____ – _____ THANK YOU!

Appendix C continued

Demographic Information Sheet – form for collecting telephone contact information.

If you would be willing to participate in a follow-up interview, please supply a first name and a phone number where you can be reached between now and January 31, 2007.

First name: _____ phone: (_____) _____ – _____

This contact information will be destroyed on January 31, 2007.

Appendix D

Laddering Interview Data Collection Form   Date: _____

Mode of experience: _____   Time: _____

Location: _____   @: _____

A:

C:

V:

_____

A:

C:

V:

_____

A:

C:

V:

_____

Appendix E

Members of the Expert Review Panel for Interview Questions and Protocols.

Laurie Lagocki, M.S. is a doctoral candidate in Department of Applied Health Science at Indiana University. She was recruited to the panel because of the concern that some people might be very sensitive when approached about an interview on the topic of their spirituality. Ms. Lagocki's research involves interviews with female–male couples, in which the women experiences vaginal pain on intercourse. Her research focus was warranted as representing expertise in approaching individuals about sensitive topics. She is also familiar with the backcountry skiing culture in the Tetons and was able to important advice on the local culture and on how to successfully approach potential informants.

Cem Basman, Ph.D. is a qualitative researcher and faculty member in the Department of Recreation Park and Tourism Studies at Indiana University. Dr. Basman's experience in conducting interviews in third world countries provided valuable advice on conducting interviews on the potentially sensitive topic and on coding of the interview data collection form in a way that would preserve the secrecy of the mean-end terminology, and thus not influence informant responses.

The Panel was consulted about interview protocols and procedures. The consultations took place before and after the methods pilot study on interview techniques and protocols was conducted.

Appendix F

List Coders for Inter-rater Reliability Verification.

James Farmer, M.S. is a doctoral student in the Department of Recreation Park and Tourism Studies at Indiana University. Mr. Farmer is a qualitative researcher who works with a research team doing studies on Interpretation for the National Park Service. His other research into summer camps also involves interview techniques and analysis. He has been involved in content analyses on several studies.

Amy Lorek, M.A. is a doctoral student and Visiting Lecturer in the Department of Recreation Park and Tourism Studies at Indiana University. Ms. Lorek's background in the Arts is reflected in her sensitivity to the nuances of language. She also works with the Eppley Institute for Parks and Public Lands, training employees of the National Park Service and is thus very familiar with the Park Service perspective on the natural environment.

Paul E. Marsh
pemarsh@alumni.indiana.edu

Doctor of Philosophy in Leisure Behavior, May 2007
      Indiana University, Bloomington
      Minor: Educational Psychology
      Dissertation: *Backcountry Adventure as Spiritual Experience: A Means-End Study*

Master of Science in Recreation, June 1999
      Indiana University, Bloomington
      Emphasis: Outdoor Recreation and Resource Management
      Thesis: *What Does Camp Do for Kids?: A Meta-Analysis of the Influence of the Organized Camping Experience on the Self Constructs of Youth.*

Bachelor of Arts in Honors Business Administration, May 1986
      Ivey School of Business, University of Western Ontario, London, Canada

Bachelor of Arts in Administrative and Commercial Studies, May 1984
      University of Western Ontario, London, Canada