

Immediate Conscious Experience in Wilderness: A Phenomenological Investigation

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Abstract—The nature of the immediate conscious experience (ICE) in outdoor recreation has been the focus of recent research. This paper reports a study of the ICE in three different wilderness settings in the Pacific Northwest. In-depth qualitative interviews (n = 126) and structured questionnaires (n = 252) with visitors contacted along trails, in camp, and at destinations explored the focus of people's attention, as well as their thoughts and feelings. Most participants engaged cognitively with the natural environment, appreciating the scenery, comparing the experience to other trips, or analyzing the setting around them. Most also reported engaging actively with the environment physically, through travel, weather, and using their senses. Social aspects were important for two-thirds of participants, most of whom were involved in group interaction or the collective construction of their experiences. Only one-third were engaged in personal reflection, which typically involved things outside the wilderness such as work or family. The findings demonstrate the multidimensionality and individuality of wilderness experiences, as well as the somewhat limited ability of managers to affect the visitor experience. However, they also demonstrate that—even in high use locations—at any given time visitors generally have thoughts and feelings that are quite consistent with the types of experiences wilderness managers seek to provide.

Introduction

The notion of “experience” has been described in many ways in wilderness research. For instance, researchers recognize that the experience is multi-faceted, involving contemplation before the trip; dynamic and complex thoughts, feelings, and sensations during a trip; and post-trip evaluation and integration into one's long-term identity and attachment to places (see Brooks and Williams in press). From the beginning of wilderness research, studies have focused on people's desired experiences (motivations) and their global assessments or

evaluations of experiences after a trip. For instance, many studies have examined whether visitors seek and attain benefits such as solitude or personal growth.

A more recent approach examines the “immediate conscious experience” (ICE), also known as “lived experience.” Such work seeks to describe what it is that wilderness visitors are doing, feeling, and sensing while immersed in the wilderness visit. While not denying that pre-trip goals are important, ICE studies recognize that actual experiences are complex person-environment transactions that cannot be fully explained in terms of goal fulfillment (Lee and Shafer 2002; McIntyre and Roggenbuck 1998; Stewart 1998; Williams 1989). Instead, recreation experiences are shaped in complex ways by characteristics of social, physical, and managerial settings, some of which may be unanticipated (Patterson and others 1998), dynamic over the course of an excursion (Waitt and Lane 2007), or interact in complex ways. Such findings help explain why—even if specific goals are not met—people may have highly satisfying experiences.

This paper describes results from a study of the immediate conscious experience of visitors (primarily hikers in small groups) to three different wilderness settings, based on in-depth interviews and self-administered questionnaires from visitors contacted along trails, in camp, and at wilderness destinations. This study will help wilderness managers understand the nature of wilderness experiences, as well as the factors that affect the quality of those experiences. In the next section, we review the literature to explore contemporary themes related to wilderness experiences and discuss ways in which our study extends previous research approaches.

Wilderness Experiences

Lee and Shafer (2002, p. 291) define “experience” as an “emerging state of mind resulting from interactions between a leisure participant and his/her surroundings.” It is “meaning created through embodied perception” (Stark and Trinidad 2007, p. 1373). The immediate conscious experience itself is different from post-leisure evaluations of experience quality (Cole 2004; Reis and Gable 2000). For instance, at any point in time, a person may see campsites and flowers, may feel anxiety or exhilaration, and may engage in various activities. However, after the trip, some of these may be more memorable

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or influential in shaping an overall evaluation of the trip as a whole, as when the relatively brief experience of views from the top of a peak override other episodes of boredom, mosquitoes, or bad food. Salient aspects relevant to one's personal life project may also become integrated into the narrative of self-identity (Brooks and Williams in press).

The literature identifies several dimensions of the ICE, including a person's conscious thoughts, the focus of directed attention, somatic (bodily) sensations, and affective feelings (Hull and others 1996; McIntyre 1998). People continuously perceive the social and physical environment around them, making sense of these perceptions through cognitive processes that include the filters of cultural symbolic meanings (Waite and Lane 2007) and linkages to personal history, as well as more basic physiological and emotional responses. Thus, lived experiences entail both inward-focused thought and externally-oriented attention (McIntyre 1998; Richardson 1999). For example, in a study of ICEs among Okefenokee canoeists, Borrie and Roggenbuck (2001) found that, at any given moment, people's focus on others within their group and on nature was much higher than their focus on self, and the same was found among canoeists in an Australian National Park's backcountry (McIntyre 1998). McIntyre and Roggenbuck (1998) also found that, during an underground river float, people's attention was focused more strongly and consistently on nature than on self or others in the group, though the focus of attention seems highly dependent on landscape attributes and activities (Hull and Stewart 1995). One goal of our study was to deepen understanding of the allocation of attentional resources during wilderness experiences, to understand the extent to which people are focusing on the elements managers care about and have the ability to manipulate in a wilderness setting.

The few studies to explore person-environment transactions during wilderness trips offer initial suggestions about what themes are likely to characterize ICEs in wilderness or similar undeveloped natural settings. Not surprisingly, a central theme revolves around awareness and appreciation of the natural environment (McIntyre 1998), particularly its scenic aspects (Hull and Stewart 1995; Nickerson and Cook 2002; Talbot and Kaplan 1986). People do not simply perceive the environment in a passive way; instead, they interpret what they perceive through culturally supplied schemas, generally reacting positively to pristine and undeveloped wilderness settings, consistent with an American romantic ideal of wilderness (Arnould and Price 1993; Glaspell and others 2003; McIntyre and Roggenbuck 1998). Certain types of settings capture attention effortlessly and are positively evaluated (Schroeder 2007). Specifically, water, mountains, or open vistas with low groundcover and scattered trees are nearly universally favored (Hill and Daniel 2008; Ulrich 1983), and exposure to them results in positive impacts on mood and cognitive capacity (Kaplan 1995). Therefore, we expect attention to nature to be dominant in the wilderness ICE.

Another theme evident from wilderness experience research is that people use wilderness experiences for self-discovery and personal growth (Brooks and Williams in press; Dawson

and Russell in press; Fredrickson and Anderson 1999; Lee and Shafer 2002; Nickerson and Cook 2002). The absence of communication and modern distractions creates cognitive space for people to reflect on themselves, their concerns, and their futures (Angell 1994; Caulkins and others 2006). Additionally, being away from the conveniences of daily life, forced to rely on oneself for basic survival and facing challenges not present in everyday life, generates opportunities to test one's limits (Talbot and Kaplan 1986). For example, students on an underground float reported heightened feelings of risk when faced with the need to jump down a low waterfall (McIntyre and Roggenbuck 1998). Similarly, backpackers in Arctic National Wildlife Refuge described feeling a sense of risk and challenge in having to navigate through wild terrain far from help (Glaspell and others 2003). Even on a short canoe trip along a warm, clear stream, people described challenges of route finding and physically negotiating their way among fallen trees through a wilderness swamp (Patterson and others 1998). The literature led us to expect to identify wilderness visitors' focus on self-discovery and related aspects of personal growth as part of the ICE.

Although wilderness experiences are often associated with solitude, another finding is that connection with others—both cognitive and affective—can often be important (Arnould and Price 1993; Fredrickson and Anderson 1999; Loeffler 2004; McIntyre and Roggenbuck 1998). Sometimes this is manifest in feelings of group bonding that are intensified by virtue of sharing challenging experiences in remote settings (Arnould and Price 1993; McIntyre and Roggenbuck 1998). Other times, it is a matter of being able to spend time privately with significant others (Hammit 1982) or sharing experiences with family (Nickerson and Cook 2002). Research in non-wilderness settings has found that companions affect recreationists' level of happiness (Csikzentmihalyi and Hunter 2003) and moods (Morita and others 2007). Nevertheless, quantitative ICE research in wilderness has found that focus on one's group is substantially lower than the focus on nature and on tasks (McIntyre 1998; McIntyre and Roggenbuck 1998). Given the relative lack of research on the social aspects of the ICE, and because most previous research has been done with group adventure excursions, we did not have expectations about how prevalent attention to the social environment would be in the wilderness ICE.

Affective states—both emotions (a particular feeling elicited by specific events) and moods (more general, diffuse feelings)—are of interest to researchers who study leisure and recreation experiences. Research has shown that moods are generally positive in outdoor recreation, partly because the decision to participate is voluntary, sought because it is expected and intended to produce positive affect. Additionally, it has been demonstrated that many types of natural settings have characteristics that tend to generate positive affect (Hull 1990). However, ICE studies in wilderness have only begun to explore emotion and mood. For instance, McIntyre and Roggenbuck (1998) limited their "mood" measures to arousal, sociability, and relaxation, while Hull and colleagues (1992) included only relaxation, satisfaction, excitement, and

boredom. The other key wilderness ICE studies (Borrie and Roggenbuck 2001; McIntyre 1998) did not include emotion measures. Thus, we expanded the list of emotions covered in our study, and we expected the ICE to be characterized by strong positive emotions.

The studies discussed above suggest that—at any moment in time—a person’s focus or thoughts may be on the environment, social interaction, tasks, or internal feelings. However, these studies are very limited, and some aspects such as focus on task or affect have not been widely studied. Additionally, while studies have begun to explore the content of thoughts about nature during the ICE (Patterson and others 1998; Waitt and Lane 2007), there has been relatively little qualitative work on people’s subjective thoughts about self, tasks, and others.

Extending Previous Research

Most ICE research has been conducted with populations that are not representative of the “typical” wilderness visitor; they have studied unique audiences like students (Hammit 1982; Hull and Stewart 1995; Hull and others 1996; McIntyre and Roggenbuck 1998), novices on guided multi-day immersion programs designed to foster personal growth (Fredrickson and Anderson 1999; Talbot and Kaplan 1986), or commercial clients (Arnould and Price 1993; Nickerson and Cook 2002). While useful, these studies need to be supplemented by studies of people engaged in more typical wilderness activities like hiking and backpacking. It is possible that conclusions from previous research may be unique to the study populations or their specific activities.

Previous research on ICE, in and outside wilderness, has used quantitative measures to understand focus of attention and other aspects of experiences (Borrie and Roggenbuck 2001; Hull and Stewart 1995; Hull and others 1996; McIntyre 1998). While providing clarity about the relative prevalence of different themes, quantitative approaches have limited ability to describe how people interpret and integrate different factors, such as the characteristics of the environment and personal history, to generate personally meaningful experiences (Fredrickson and Anderson 1999; Waitt and Lane 2007). Therefore, in this study, we supplemented quantitative measures with in-depth interviews.

Most ICE researchers have been interested in the ways the components of experiences vary over time. Therefore, they have employed within-subjects designs and prompted participants (often through beepers) to record measures multiple times (Borrie and Roggenbuck 2001; Hull and Stewart 1995; McIntyre 1998). Such designs have some clear advantages; however, they may suffer from high attrition (Gershuny 2004), are subject to low compliance with instructions (Reis and Gable 2000) or may sensitize participants to the topics and variables of interest to the researchers (Visser, Krosnick, and Lavrakas 2000). Thus, we chose to ask people to respond only once during their trip. While our approach has its own limitations (discussed later), it supplements other approaches and collectively helps researchers ‘triangulate’ on the dimensions and content of ICEs.

To extend prior research, our goal was to use quantitative measures to characterize the magnitude of different facets of the ICE and a qualitative approach to understand, more holistically, the nature of ICE in wilderness, with a focus on what people “actually do or feel” (Lee and Shafer 2002). In the phenomenological tradition, we focused on the experience as it occurred, rather than people’s interpretations of or opinions about the experience (Starks and Trinidad 2007). We did this in the wilderness, as opposed to after the conclusion of the trip, to avoid problems of recall (Reis and Gable 2000; Schroeder 2007) and to ensure that appropriate context was provided (Gershuny 2004). We studied a representative sample of visitors instead of self-selected volunteers, and we used a less reactive technique than beepers. Thus, we answer Stewart’s (1998) call for innovative methods to study the nature of the leisure experience.

Methods

Study Areas and Sampling

We studied wilderness experiences at three high-use wilderness sites in Oregon and Washington. The locations were chosen to capture a range of physical settings and a diversity of visitors. The first site, Marion Lake (ML), in Mt. Jefferson Wilderness, is located in an old-growth forest in the Cascade Mountains of Oregon. The 300-acre lake is renowned for its fishing opportunities and is highly accessible, being only two miles from the trailhead. Data collection took place in late May and early June, 2002, when snow was present and weather conditions were often poor. The second site, Pete Lake (PL), is located in mid-elevation mixed conifer forests of the east slopes of the Cascade Mountains in the Alpine Lakes Wilderness in Washington. The lake is four miles from parking and attracts a mix of day and overnight visitors. At the time of our data collection, in June and July, crossing flooded streams was challenging and mosquitoes were notable. The third site, the Lakes Basin (LB) in Oregon’s Eagle Cap Wilderness, was studied in August and September, when the weather was excellent and insects were gone. The Lakes Basin is a subalpine area with meadows, lakes, and pockets of trees located in glaciated granite outcrops amid high peaks. It is reached by a relatively challenging 8-mile hike from the nearest access point. Overnight trips to this site are much more common here than at the other two sites.

Each study site was sampled on at least 15 days. Research was conducted within the wilderness, to capture the immediate experience and avoid memory problems, such as rosy recall or schematic bias (Koriat, Goldsmith, and Pansky 2000; Levine and Safer 2002; Reis and Gable 2000). Researchers traveled through the study location, intercepting all groups they encountered. On high use days, when more groups were present than could be sampled, researchers sampled for maximum variability—that is, they sought out groups that enhanced the variation in group size, presence of children, length of stay, and gender. When a group was contacted, one individual was asked to participate in a taped interview (selected to enhance

diversity in age, gender, and other characteristics), while the other group members were asked to complete the written questionnaire. People were quite willing to assist with the research: the response rate was approximately 80% across all three locations.

Data Collection Instruments and Analysis

The questionnaires presented 74 items drawn primarily from previous research. Several items used semantic-differential format (such as, “happy-sad,” “alert-drowsy”) to explore people’s emotional states. Several items measured the focus of attention (such as, “how much were you focusing on the natural environment around you?” or “How much were you concentrating on the task you were carrying out?”) and content of thought (such as, “I felt connected to times long ago,” “how much were you thinking about things you need to do back home?”). Other items assessed physical condition (such as, “my body aches,” “I feel great”). We specifically included several wilderness-specific items developed by Borrie and Roggenbuck (2001), such as, “I felt a part of wild nature,” “I felt I was living like a pioneer.” All items were measured with 9-point scales and asked the respondents to report about the time immediately prior to being contacted. Participants rated each on a scale of 0 (not at all) to 8 (very much). Questionnaire items intended to measure each construct (focus of thought and attention, behavioral engagement, affect, focus on task, social focus, and personal reflection) were factor analyzed (principal components extraction with oblique rotation) in groups to reduce them to meaningful latent constructs with adequately high reliabilities (Cronbach’s alpha). This resulted in 17 specific factors.

With a goal of rich description and understanding (Schroeder 2007), interview questions explored the focus of people’s attention, their thoughts, and their feelings in the time immediately before they were contacted (Reis and Gable 2000). We did not cue them with concepts such as “wilderness” or “solitude,” so that they would instead express themselves in their own terms (Groenewald 2004). Following general guidelines for qualitative research, the wording and aims of the interview questions evolved over time as we discovered that some forms of questions were challenging or strange for respondents. Ultimately we asked questions such as these: “What have you been thinking about? What were you doing? What were you focusing on? How were you feeling?” Interviews were transcribed verbatim and imported into QSR N6 for analysis. This paper makes use only of text specifically related to the ICE from 126 interviews. Additional results from these studies are reported in Johnson and others (2005) and Hall and others (2007).

The approach to coding this material can best be considered interpretive phenomenological analysis (IPA). This is an inductive effort to make sense of others’ attempts to create meanings (Brocki and Wearden 2006; Reid and others 2005), while searching for shared patterns (Darker and others 2007). IPA is especially well suited for studying complex cognitive phenomena (Brocki and Wearden 2006). We read transcripts multiple times, developed initial highly specific themes based

on participants’ words; organized those themes into broader categories (guided by theoretical constructs from the literature, while remaining sensitive to emergent themes); and ultimately produced a hierarchical structure (Groenewald 2004; Reid and others 2005). In presenting results, we recognize the importance of the subjective report, and therefore we use excerpts from the interviews extensively (Graumann 2002; Brocki and Wearden 2006). Excerpts are identified with the interview number, location, gender (M=male, F=female), and length of trip (OV = overnight, D = day).

Findings

Interviews were conducted with 45 women and 81 men. Eighty interviews were with overnight visitors, while 46 were with day users. The distribution of interviews across locations was roughly equal: 34 at Marion Lake, 50 at Pete Lake, and 42 in the Lakes Basin. While 16% of people were contacted at lake destinations and 2% were at scenic vistas, 38% of interviews were done in people’s campsites and 44% were done when we intercepted people along the trail. Questionnaires were collected from 70 Marion Lake visitors (26 day, 44 overnight), 72 Pete Lake visitors (45 day, 27 overnight), and 109 Lakes Basin visitors (29 day, 80 overnight).

Five general themes emerged from the interviews (Table 1). The themes are not mutually exclusive, and they could potentially be organized in different ways, but this typology generally conforms to the major themes identified in ICE research. Factor analyses of the questionnaire items resulted in 17 factors (Table 2), which we grouped within the five themes from the interviews. In discussing these findings, we integrate both types of data and though we present all the themes—we emphasize those that are novel contributions of our research.

Engagement with the Environment

The most common interview theme was engagement with the natural environment, which was both cognitive—interpreting and thinking about the setting—and behavioral. The cognitive aspects were similarly prominent in the questionnaire data, where focus on nature, remoteness, wildness, and humility were all generally high. As expressed in the interviews, cognitive engagement frequently took the form of “appreciating the beauty,” “enjoying the view,” or thinking about “what a wonderful place it is.” Often these sentiments were expressed when people were contacted at particularly scenic spots, such as “the first big view,” where they were focusing on “the snow capped mountains and the waterfalls along the trail” (#27, PL, M, D) or thinking about how “the view down the Lostine canyon is just so great” (#79, LB, M, OV).

Beyond appreciation, cognitive engagement often went deeper to include focused attention to the small, varied details of the environment, such as “the different colors of the rocks along the way... the different tones of grays and tones of colors in the trees” (#14, PL, M, D) or “the ways the light plays on the rocks at all different times of the day, in the shade that is cast in the meadows” (#122, LB, M, OV). One camper captured

Table 1—Prevalence^a of themes relating to the immediate conscious experience.

Primary Theme	Sub-theme	Percent
Engagement with the Environment: Cognitive (n=95; 75.4%) ^a	Scenery, beauty	34.9
	Comparison to other place or trip	30.2
	Analysis or imagination	28.6
	Micro or variety	23.8
	Wildlife	15.1
	Deliberate disengagement	11.1
Engagement with the Environment: Behavioral & Bodily (n=77; 61.1%)	Trail/travel	24.6
	Weather	22.2
	Somatic	16.7
	Bugs	10.3
	Active construction of experience	10.3
	Senses	10.3
Affect (n = 71; 56.3%)	Relaxed, peaceful, nice	41.2
	Strong positive (e.g., awe, love)	10.3
	Negative	4.8
Task (n=59; 46.8%)	Camp chores or food related	25.4
	Activity	20.6
	Making decisions	10.3
Social (84 own group; 66.7%)	Group interaction & talking	38.1
	Collective construction of experience	34.1
	Other group members' experiences	12.7
	Other groups	19.0
Personal reflection (n = 43; 34.1%)	Home or family	19.8
	Work	8.7
	Other	10.3

^a Numbers are number and percent of interviews containing each theme.

the sense of fascination with the setting this way: “We’ve got a camp that has a just picture perfect window between the trees of the mountain and it’s just glorious. Like I was telling Kelly, it’s like a big screen TV. You got this huge picture that is beautiful, it keeps changing, and you can’t stop looking at it” (#73, LB, M, OV).

Others had been engaged in an analytic process of developing explanations for what they were observing. For example, when asked what he had been thinking, a day hiker said, “one of the things I was thinking about is, I asked my friend Brian if this place had ever been logged. And he said there’s absolutely no way. There’s never been any roads built in here. Nothing. And I was imagining what it would be like when the Indians were here. And I wonder if they went out on this lake and fished this lake and I’m sure they probably did” (#100, ML, M, D). A camper in the Lakes Basin said, “I was actually looking at the U-shaped valleys, and thinking about how long it took to get this way, how the Lostine River did all of this work and made it like it is. Just kind of appreciating it, because I don’t see this in the valley where I’m from” (#74, LB, M, OV).

Another form of cognitive engagement involved comparing the place—its smells, trails, scenery, or other aspects—to other places. Most participants had been to the study location previously, and comparisons were often to previous trips. Or the environment conjured up memories of other places, as for the day hiker who said she was “just thinking about how I miss Colorado and I miss all the outdoor stuff that I used to do there” (#20, PL, F, D).

Although wildlife was not always evident, especially during day trips, a sizeable number of people described thinking about or searching for wildlife. When observed, wildlife captured extended attention, exemplified by a camper’s description of watching osprey: “I was looking at the osprey, thinking that they might have a nest with babies because they seemed to come over here and say, ‘what are you doing here?’ They seemed to fly kind of low over here. And I didn’t think they were just fishing. They were like, ‘get out of here.’ So, I was really pleased to see that” (#90, ML, F, OV). This example illustrates the way participants supplied interpretations and analyzed the conditions and events they observed.

Table 2—Mean ratings^a and factor structure of wilderness experience items.

Factor (Cronbach's alpha)	Item	Item mean (SD)	Loading ^b	Scale Mean
Cognitive Engagement				
Nature ($\alpha = .68$)	Focus on the natural environment around you	6.67 (1.52)	0.83	5.64
	The feelings I was experiencing were more intense than usual	3.75 (2.38)	0.57	
	I noticed the little things of nature more than before	5.17 (2.01)	0.70	
	Focus on the scenery	6.80 (1.66)	0.81	
Remote ($\alpha = .75$)	I felt like I was in a remote place	5.55 (2.01)	0.85	5.71
	I felt away from the modern world	6.16 (1.96)	0.78	
	The environment was free of human-made noise	4.92 (2.44)	0.65	
	I would call this place wilderness	6.16 (1.82)	0.75	
Pioneer ($\alpha = .62$)	I felt I was living like a pioneer	2.77 (2.48)	0.74	4.18
	I felt that life is simple	4.89 (2.12)	0.78	
	I felt that time had flown by	4.89 (2.07)	0.74	
Wild ($\alpha = .89$)	I felt a part of wild nature	5.02 (2.14)	0.79	5.89
	I felt a sense of freedom	6.25 (1.61)	0.73	
	I was in awe of nature's creation	6.24 (1.95)	0.76	
	I felt the tranquility and peacefulness of this place	6.58 (1.59)	0.82	
	I was feeling a special closeness with nature	6.00 (1.86)	0.84	
	I felt the simplicity of life on this trip	5.61 (1.96)	0.75	
	I was feeling totally immersed in nature	5.38 (1.97)	0.80	
Humility ($\alpha = .80$)	I was feeling insignificant in the glory of nature	4.08 (2.56)	0.79	4.52
	I felt the silence of the environment	5.29 (2.16)	0.76	
	I felt connected to times long ago	3.53 (2.49)	0.78	
	I felt humbled by all of nature around me	5.15 (2.36)	0.81	
Behavioral engagement				
Physical challenge ($\alpha = .78$)	The physical environment provided too much challenge	1.32 (1.58)	0.73	1.14
	I couldn't seem to catch my breath	1.13 (1.54)	0.69	
	This trip has been more difficult than I imagined	1.09 (1.74)	0.71	
	I have carried too much gear	1.29 (2.01)	0.53	
	My heart is racing too much	0.71 (1.27)	0.70	
	If I had to do it over, I would choose an easier trip	0.60 (1.35)	0.68	
	My body aches	1.74 (2.08)	0.70	
In shape ($\alpha = .73$)	My body was up to the challenge	6.35 (1.67)	0.72	4.39
	I wish I had better physical endurance ^c	3.27 (2.80)	-0.77	
	I am in the best shape of my life	3.17 (2.38)	0.72	
	I am physically prepared for this trip	5.62 (2.18)	0.78	
Affect				
Vigor ($r = .37$)	I feel great	6.43 (1.68)	0.68	6.20
	I feel invigorated	5.96 (2.00)	0.83	
Cheerful ($\alpha = .82$)	Sad - Happy	7.08 (1.22)	0.72	6.79
	Irritable - Cheerful	6.60 (1.72)	0.77	

(continued)

Table 2 (Continued).

Factor (Cronbach's alpha)	Item	Item mean (SD)	Loading ^b	Scale Mean
	Constrained - Free	6.77 (1.44)	0.67	
	Confused - Clear	6.73 (1.41)	0.66	
	Worried - Calm	6.91 (1.40)	0.78	
	Uncomfortable - Comfortable	6.60 (1.60)	0.76	
Satisfied (α = .66)	Resentful - Satisfied	6.65 (1.99)	0.81	6.68
	Relaxed – Tense ^c	6.75 (1.80)	-0.75	
	Hostile - Friendly	6.67 (1.94)	0.73	
At ease (α = .77)	I would call what I was doing leisure	6.30 (2.13)	0.56	6.65
	I was satisfied with how I was performing	5.94 (1.90)	0.55	
	I was able to be myself	6.88 (1.49)	0.72	
	I felt completely at ease here	6.70 (1.63)	0.85	
	I felt tranquil or at peace here	6.79 (1.55)	0.86	
	I wish I had been doing something else ^c	0.74 (1.63)	0.54	
Alert (α = .80)	Drowsy - Alert	5.92 (2.08)	0.75	5.91
	Passive - Active	5.98 (2.23)	0.74	
	Tired - Energetic	5.47 (2.13)	0.78	
	Weak - Strong	6.11 (1.67)	0.75	
	Excited -- Bored	6.05 (1.51)	-0.71	
Task				
Task (α = .68)	Focus on the task you were carrying out	4.69 (2.56)	0.69	3.85
	I was focusing on achieving the next goal of my trip	3.54 (2.58)	0.62	
	I was concentrating on doing my activity right	3.72 (2.61)	0.81	
	I was fulfilling some of my responsibilities ^c	3.48 (2.70)	0.70	
Social Group (r = .52)	Focus on other people in your group	4.67 (2.05)	0.83	4.84
	I felt a special closeness with others in my group	4.04 (2.01)	0.51	
Solitude (r = .27)	I experienced solitude	5.02 (2.36)	0.76	5.02
	Crowded Alone	4.67 (1.61)	0.77	
Personal reflection				
Self (α = .75)	Focus on your own thoughts	5.05 (2.14)	0.70	3.73
	Focus on your feelings and emotions	3.76 (2.19)	0.77	
	I was reflecting about myself a lot	3.41 (2.24)	0.79	
	I was very aware of my feelings	3.84 (2.32)	0.71	
	I was thinking about my place in the world	2.54 (2.49)	0.52	
Home (α = .80)	Thinking about things you need to do back home	1.66 (2.20)	0.85	1.57
	Thinking about work or school things to be done	1.16 (1.84)	0.85	
	Thinking about "real life" outside of the wilderness	1.86 (2.27)	0.83	

^a Scale endpoints (0 = not at all; 8 = a great deal)

^b loading on primary factor, structure matrix, oblimin rotation

^cItem reverse coded in computing factor score.

Interestingly, several people—when asked about their thoughts—explained that they were trying “not to do a whole lot of thinking” (#63, LB, M, OV), but instead preferred to “walk with a clear mind and not think about too many things” (#18, PL, M, D). One described this as trying to “just take in what’s around me” (#45, PL, F, D). Another explained that “hiking is kind of a transcendental mood—you don’t really know what you’re thinking about” (#94, ML, M, OV).

Physical engagement with the natural environment, as described in the interviews, involved both activities, such as hiking, and bodily sensations, such as fatigue. However, the questionnaires revealed that concerns about strenuous physical challenge were quite minor. Some people reported heightened senses as a part of their ICE, with some discussing the central role of smell: “I love the way it smells... The pines have a real distinctive dry smell” (#7, ML, F, D); “I was thinking about how great it smells, because it only smells like this in the woods” (#17, PL, F, D). Other people were paying attention to what they heard, such as “the sound of the wind in the trees” (#44; PL, F, D). One day hiker described both sound and smell: “I love the way it smells... the sound of the river—the whitewater sound is so beautiful” (#7, LB, F, D).

Some people described ways in which they actively constructed their experiences through their activities, rather than passively “absorbing” their surroundings. For instance, one hiker mentioned how she and her partner “always pick up rocks and look at them and then put them back. We talked about what the water looked like. I took pictures of it with real fast shutter speed and slow speed, so we could see the drops” (#7, LB, F, D). Another camper described how her group was deliberately quiet so they could “hear wild critters” (#57, LB, F, OV).

Many people described how aspects of the physical environment forced them to narrow their focus of attention. Some of these were described in ways that suggested people’s attention was diverted from things they might rather be attending to. Often this occurred when they had to pay attention to hiking (“trail/travel” in Table 1). At Marion Lake, early in the study, snow drifts were deep and participants contacted along the trail were focusing on “staying on [their] feet” (#1, ML, M, OV). At Pete Lake, it was challenging to find the trail due to blowdown and flooded streams. One participant described it this way: “I was just sort of thinking, trying to remember our route back. It’s been so broken up because of the blow downs and everything. Trying to remember which river crossings, or which creek crossing do we have on the logs” (#21, PL, M, D). While finding routes was not a problem in the Lakes Basin, some of the trails were rocky and steep, causing people to focus on “where I put my feet. Coming down hill... I don’t want to hurt myself, so I’m awful careful” (#79, LB, M, OV). One hiker said she “would like to feel a little more spiritual,” but wasn’t able to, “because of the challenge. This is a big challenge because of the terrain and the rocky path. I look at the path and think about my footing” (#66, LB, F, OV). While challenging travel narrowed people’s focus of attention to their immediate surroundings, some people also described focusing on or thinking about their physical condition, because they were

“getting kind of tired” (#113, PL, F, D), “just paying attention to my feet” (#78, LB, F, D), or thinking about “how my pack sits on my back” (#95, ML, M, OV).

We included weather under physical engagement with the environment, because it generally caused people to focus on their physical comfort and affected their activities. For instance, one camper mentioned that he had been “getting all my gear dry” (#31, LB, M, OV), while another had been “thinking about whether I should get ready for rain” (#105, PL, M, OV). Although adverse weather was commonly mentioned, other people talked about how they were “really enjoying the temperature of the day” (#97, ML, F, OV) or feeling grateful that “it was nice to have a rain free evening and a sunny morning” (#63, LB, M, OV).

When mosquitoes were present, people reported having their attention inescapably drawn to them. One respondent captured both the affective and attentional effect of mosquitoes: “I’ve been preoccupied with all these bugs... slapping and walking, which seems to be a challenge for my coordination... If it wasn’t for these bugs I would pay attention to more but mostly I’ve been paying attention to these mosquitoes” (#41, PL, M, D).

Tasks

Nearly half of the participants reported that they had been thinking or focusing on a specific task. This is consistent with the mid-scale rating for focus on tasks in the questionnaires. Often this was because we contacted people in their camps or at rest stops along trails, where they were preparing food or taking care of camp chores. Such tasks drew attention away from the natural environment: “Getting the tent set up, eating lunch... Just the little details of setting up a camp. Finding where everybody’s stuff is and where it needs to go” (#52, PL, F, OV). A camper in the Lakes Basin said he “hadn’t been thinking about too much, just the chores around the camp” (#65, LB, M, OV).

Many participants were focused on their specific recreational engagement. At Marion Lake, anglers reported things like “watching the lake to see if there were any fish rising” (#103, ML, M, D) or “focusing on fishing and just enjoying the view” (#92, ML, M, OV). Photography was another common activity that consumed people’s attention: “just thinking about what would be a really cool picture and what angle could I get at it” (#120, PL, F, D); “I’ve been thinking a lot about the sunset and if I can get a picture of it or not” (#118, PL, M, OV).

Affect

Only 39 people were asked explicitly about their mood or emotions in the interviews, although 71 people provided such information, typically in response to questions about their thoughts. In the questionnaires, positive emotions were the most strongly rated of all the factors. Only six people expressed any negative affect in the interviews, while the majority of the rest (52 people) gave rather simple responses about mildly positive states, such as relaxation (“just sitting and enjoying the quietness” #14, PL, M, D), enjoyment (“pretty happy, content,

fulfilled” #16, PL, M, OV), or peacefulness (“it’s soothing, it’s hypnotic” #7, LB, F, D). Many people simply responded that they were in “a good mood,” without elaborating further. Stronger emotions, such as awe or excitement, were expressed by only a handful of people. As one person put it, “I guess you might say [it is] catharsis to my spirit to be in these kind of places” (#117, PL, M, D). Another hiker discussed how much he had been missing his wife back home, but had decided to finish out his trip: “I love this place so much and I have a favorite campsite, so I’m going to stay anyhow” (#79, LB, M, OV). Overall, it was clear that moods and emotions were much more positive than negative, but that their intensity was mild.

Social Factors

Approximately 40% of interview participants said they had been talking with and interacting with group members immediately prior to being interviewed. Nearly half of these (22 people) were talking about issues “back home,” ranging from film festivals, to cars, to computers, to food. Others were discussing their trip, and a common type of response was, “We were talking about just how good it was to be out here... Sitting around and enjoying each other” (#84, LB, M, OV). The prominent role of social interaction in the ICE was confirmed by the relatively high rating for focus on the group in the questionnaires.

An important aspect that emerged from the interviews was how participants co-constructed their experience with other group members. Although we asked people specifically about their own experience, many respondents used “we” language to talk about how they had been discussing things, drawing each other’s attention to features of the environment or making decisions with their group: “We had originally thought we’d hike into Spectacle Lake, but we didn’t realize it was so far. And we thought with the weather, the way it is, we probably won’t do that today. So, we were talking about how we wanted to enjoy today” (#116, PL, F, OV). An example of collectively developing meanings can be found in the narrative of a camper who had been looking at historic mining equipment in the Lakes Basin: “My son and me were talking about the mining operations up here. Just guessing because we don’t know anything about them, but we see some mining equipment around camp. Looks like there might have been some kind of a something going in. We don’t know what they were mining. That’s what we were talking about” (#85, LB, M, OV). When asked about her thoughts, a day hiker at Pete Lake responded, “We were thinking about how awesome, even when the trees are dead, how beautiful they still are. And we were thinking about how incredible the variety of flowers were” (#17, PL, F, D). Thus, respondents tended to expand our question about “their” thoughts to encompass the group as a whole.

A less common aspect of the social dimension of the ICE was participants’ attention to the quality of their own group members’ experiences, particularly when traveling with children or inexperienced group members. As one parent put it, he had been occupied around camp, thinking about “how did

everybody sleep, do you want more hot chocolate?” (#65, LB, M, OV). Another discussed how he had been attending to his wife: “We had a really nice breakfast that I cooked for my wife—this is her first trip, and I wanted to make it really nice... She wants to go fishing. She hasn’t been able to go fishing for a long time and so I say, okay. So, I’ve been taking care of the chores while she’s been fishing. Making it good for her” (#111, PL, M, OV).

Much of the research on wilderness experiences, and managers’ efforts to shape those experiences, has centered on the role of encounters among groups. It has commonly been assumed that having many encounters in wilderness detracts from experience quality. In our study, the percentage of interview participants who reported that they had been attending to or thinking about other groups was surprisingly small, given the high levels of use in the area; 55% of the interviews took place within sight or sound of other parties, and 16% were in sight of three or more other parties, yet many participants did not seem to be highly aware of others. When other people were mentioned, evaluations of the situation were typically neutral, as for the day hiker who said, “I guess there’s people around us too. There was a couple that went by us, behind us, and... and we were just kind of chatting with them” (#99, ML, M, D). A camper at Pete Lake said, “it’s been very restful up here and very pleasant... Even though there are other people here, I’m not really aware of them” (#38, PL, F, OV). In the questionnaires, solitude was rated relatively high as part of the ICE, supporting the interview findings. A small number of people expressed negative reactions to the level of use: “there are a lot of people here... It’s not a huge concern to me, but this is like overkill. I’ve just never seen so many people on one trail at one time” (#76, LB, M, OV). Seekamp and others (in press) note that, when asked to define a “wilderness experience,” many people referred to the absence of other people and a high degree of solitude. It is interesting, then, that the presence of other visitors did not seem highly salient as a specific focus of thought or attention for the same people, when asked about their immediate experience.

Personal Reflection

Approximately one third of interview participants said they had been thinking about affairs at home, whether that be family, friends, work, or other things, and the questionnaires showed focus on such thoughts to be quite low. Although few people mentioned thinking about things related to personal growth or spirituality, among those who were using the trip to work through issues, being away was an important factor. As one said, “that’s part of coming out here, is to reflect on relationships and people... things in my personal life” (#117, PL, M, D). More commonly, people were thinking about typical aspects of their daily lives. As one hiker put it, thoughts encompassed “a range of things, anywhere from family matters to our kids to the potential of moving in a year out of this area” (#27, PL, M, D). Another said, “I’m getting ready to go back to work pretty soon and I’ve been thinking about that. What I need to do before I go” (#29, PL, M, OV). One day hiker captured the

individualistic nature of such thoughts when she said, “you want to hear everything? . . . Let’s see, old boyfriends, traveling, building a house, heels, shoes, Italy, traveling, my old dog” (#78, LB, F, D).

Thinking about home often involved group discussions: “We sat around and talked about some of our friends from home. . . . That’s about all we have thought about this morning” (#63, LB, F, OV). “We were actually talking about her husband and my fiancé, who were both in different places, and just talking about what they were doing. My fiancé is at the family beach house at the coast and I’m up here, and we’re just talking about how it’s nice and rainy here and they’re probably nice and dry indoors” (#32, ML, M, OV). These examples further illustrate how people in groups co-construct their experiences.

Multi-dimensionality and Individuality of Experiences

The analysis above, organized by dominant themes, masks an important feature of experiences—their multidimensional and highly individualized nature. That is, although the general themes we identified occurred frequently, their specific manifestations and combinations were quite distinct. For instance, in the interviews, all but one of the people who described thinking about home or work also described cognitive or behavioral engagement with the environment. Similarly, 85% of those who were focusing on a task or activity were also attending to the natural environment. Almost 90% of those who were focusing on other people were also focused on the natural environment. In fact, 60% of interview participants described at least three of the five primary themes. The following examples illustrate the types of combinations and individual manifestations of experiences that emerged in response to questions about people’s focus of thought and attention:

“About nature, about the lake, about mosquitoes, about my dog, about my mother, and about work. . . . The mosquitoes and other flies, my dog, and the water and the wind and the birds. Those flowers, they’re just so amazing. The wind and the sound of the wind in the trees” (#44, PL, F, D).

“My blisters. I think I have been thinking about how many other people we’re seeing. Of course how beautiful it is. Thinking about my last trip here, last summer. Thinking about the other people in my group. Thinking about friends back home. That probably sums it up” (#67, LB, F, OV).

“The mountains and the snow. Kind of the stillness of the water, at the lake. And how the trees above it reflect down onto the lake because it was so still. Because I was taking some photographs of that. But it was nice. It wasn’t raining or anything, which is always good. And, I was noticing other people that were up there and seemed to be enjoying themselves too, they were relaxing and kind of lounging around and eating and stuff like that. You know, watching my husband fix his foot since he has blisters (#113, PL, F, D).

Discussion

In this section, we discuss how our findings relate to previous wilderness ICE research. Many of the themes that emerged from our interviews were similar to those previously reported, but there were some interesting differences.

Both Borrie and Roggenbuck (2001) and McIntyre and Roggenbuck (1998) found that attention to “nature” was more prevalent than attention to self, task, or social group. Not surprisingly, the natural environment was a nearly universal and primary focus of attention and thought for participants in our study as well, and engagement was both cognitive and behavioral. Also similar to previous research (Hill and Daniel 2008; McIntyre and Roggenbuck 1998; Schroeder 2007), people’s attention was focused on particularly scenic characteristics, like mountains and flowers, as well as “pristine” wilderness features. Both the interviews and questionnaires demonstrated the extent to which people focused their attention on variety and “micro” aspects of the environment, as well as how they supplied interpretations and explanations through personal imagination or group discussions. Questionnaires revealed that people were especially likely to feel away from the modern world, experience tranquility, and feel a sense of freedom.

Beyond a general awareness and appreciation of wilderness, interviews revealed the way aspects of the environment affected the scope of attentional focus. Consistent with observations by Patterson and others (1998) and Fredrickson and Anderson (1999), there were specific things—difficult trail conditions, adverse weather, or mosquitoes—that study participants reported as restricting their focus of attention, and such environmental conditions varied across sites.

As in other studies (such as, Borrie and Roggenbuck 2001; McIntyre 1998; McIntyre and Roggenbuck 1998), it was somewhat less common for people to have been focusing on tasks or activities than on nature. In our case, this may have been because many interviews and questionnaires were administered in people’s camps or along lakeshores, where people may have been relaxing and not really doing very much. Nevertheless, when people were engaged in active tasks, such as cooking, setting up or breaking down camp, or fishing, their attention tended to be highly focused on the immediate surroundings and a limited set of behaviors.

Previous ICE research has obtained varied results regarding focus on one’s own group. For instance, participants in Borrie and Roggenbuck’s (1998) study reported relatively high scores on feeling “special closeness” with their groups, while McIntyre’s (1998) participants had relatively low scores for focus on their own group. As Borrie and Roggenbuck surveyed canoeists who were physically always together, and McIntyre surveyed students on an organized trip, such differences may be logical. Two-thirds of our interview participants had been thinking about, focusing on, or interacting with other people, nearly always their own group members, and questionnaires revealed that attention to one’s own group members was quite common. It was quite evident from the interviews that wilderness visitors co-construct their experiences, drawing each other’s attention to things they see, discussing how features

of the environment came to be, or imagining what it might have been like in times past. However, the ICE results also illustrate how often social interaction has little to do with the wilderness setting. Conversation was plentiful, and ranged widely from weather and wildlife, to events back home, plans for the future, and issues related to work or family.

These findings are consistent with other research in outdoor recreation, including in wilderness settings, showing that people often engage in recreation for social motivations and to forge connections with others. The high degree of sociality contrasts with the common notion that wilderness experiences are primarily individual, reflective experiences and reinforces the need to recognize important social motivations and processes. It is important to note that, despite their extensive social interactions, survey participants also reported feeling a relatively strong sense of solitude at the same time.

Emotion has not been extensively studied in qualitative research on immediate conscious experiences in outdoor settings, particularly not in wilderness. Research by Hull (1990) and Kaplan (1995) led us to expect that emotions were likely to be positive, and indeed this proved to be the case, as evident from both the interviews and questionnaires. People seemed to be in mildly pleasant moods, relaxed, at ease, and satisfied. This finding contrasts with the expectation that people on wilderness trips are likely to experience intensely powerful emotions such as awe or humility. Indeed, it suggests that the common emotional experiences in wilderness are quite similar to those that occur in other types of natural environments. It is interesting to note that these reports of the ICE appear to differ from the more intensely emotional narratives that have been reported among highly place-attached wilderness visitors (Brooks and Williams in press).

Wilderness experiences are often thought of as opportunities to focus on oneself. For instance, Borrie and Roggenbuck (2001) asked people how much they had been focusing on their own thoughts, reflecting on themselves, or considering their place in the world. In our quantitative data, scores for these items were much lower than for focus on nature, tasks, or social group. In our qualitative interviews, we found it difficult to extract focus on "self" from other points of focus. For example, some people who were thinking about or talking with their own group were thinking about their relationships with group members, while others were cognitively engaged in comparing the present trip to a previous trip, both of which could be classified as focusing on "self." Apart from these types of introspection, it was clear from both interviews and questionnaires that people were not thinking much about work and their daily lives, supporting the contention that wilderness experiences are largely about cognitive and emotional escape.

Several contrasts were evident with other wilderness experience research in relation to themes that did not emerge from our data. Specifically, other studies have discussed the importance of wilderness trips for personal growth and the role of risk or challenge (Glaspell and others 2003; Loeffler 2004; McIntyre and Roggenbuck 1998; Schmidt and Little 2007). Brooks and Williams (in press) point out that wilderness experiences are part of the overall process of forging personal identity for many

people, but our interviews did not reveal that such processes were necessarily central at any given point in time during wilderness trips. In fact, while people appreciated the opportunity to relax and not think about work, few engaged in deep spiritual exploration or contemplation. It may be that connections to self-identity and life projects become more central to people after they return home. Risk and challenge only appeared in a few interviews, primarily from early in the summer, when some people found that snow or flooded streams stretched their comfort level, and the questionnaires revealed low levels of physical challenge. It is possible that the absence of risk and challenge is related to the characteristics of our study sites, which were relatively accessible by high quality trails. Other research has explored experiences in remote locations such as Denali (Glaspell and others 2003) or on challenging trips (McIntyre and Roggenbuck 1998; Fredrickson and Anderson 1999).

Another surprising finding was how few people were attending to other visitors outside their own group. Despite being in very high use areas, few people mentioned thinking about or focusing on other visitors. Although a small handful of visitors expressed dismay over crowded conditions, particularly in the Lakes Basin, most either paid little attention to others or had positive encounters.

Conclusions

This research reveals the multi-dimensionality of the immediate conscious wilderness experience, as well as the ways that common themes play out in uniquely individual ways. We had a very high level of participation in the study and were able to capture the ICE in context, thereby overcoming some limitations of previous approaches. However, our study has some limitations that should be noted. First, some people found the questions about what they had been thinking and feeling to be strange, and in many of the interviews, this material was quite brief. Richardson (1999) pointed out that respondents in studies of experiences must have high levels of verbal competence, be forthcoming and complete. Some of our participants were willing and able to communicate personal insights, but others were not. Additionally, people had difficulty separating their immediate experiences (just before being approached) from the rest of experience. As Patterson and others (1998) noted so well, people like to engage in story-telling, and many participants wanted to relate what they thought were the more interesting aspects of their entire trip, rather than the mundane details of the past hour.

Despite these limitations, our research revealed that the ICE in wilderness tends to be highly positive. Beyond this, it is complex, involving considerable attention to things outside wilderness, in addition to a person's immediate natural and social surroundings. Experiences are temporally dynamic, with the focus of attention sometimes being expansive and sometimes quite narrow, depending on one's activity, physical conditions, and companions. Overall, feelings are positive, though occasionally punctuated by negative events. Together with other research on the ICE, post-trip evaluations of experiences, and

narrative approaches, our research helps show how specific situations and conditions encountered during a wilderness trip influence people's immediate thoughts and feelings, and which aspects of those experiences later become incorporated into personal identity.

This study of the ICE in wilderness illustrates the challenges managers face in providing opportunities for specific types of experiences. First, these experiences—at least in the “typical” wilderness settings we studied—do not seem fundamentally different from what might occur outside wilderness in semi-natural environments. This is consistent with what visitors reported when directly asked about where they can find “wilderness experiences” (Seekamp and others, in press). Second, many things that people think about or attend to are outside of managerial influence, such as a person's individual life history, the social group, the weather, or insects. Nevertheless, our findings clearly reinforce the conclusion that wilderness visitors attend to (and appreciate) “pristine” nature and scenery, and that these factors contribute to feelings of “wildness.” On the other hand, they illustrate the limited effect of other visitors, even in places where one might encounter dozens of other people on any given day. Thus, the data show that—even in these high use locations—at any given time people are having thoughts and feelings largely consistent with the types of experiences wilderness managers hope to provide.

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