

# **Rush as a key motivation in skilled adventure tourism: Resolving the risk recreation paradox**

**Ralf Buckley**

International Centre for Ecotourism Research, Griffith University, Gold Coast 4222, Australia

*Keywords:*

Thrill, Flow, Peak, Edgework, Sensation, Marketing

*Abstract*

At least 14 different motivations for adventure tourism and recreation, some internal and some external, have been identified in ~50 previous studies. Skilled adventure practitioners refer to ineffable experiences, comprehensible only to other participants and containing a strong emotional component. These are also reflected in the popular literature of adventure tourism. This contribution draws on >2000 person-days of ethnographic and autoethnographic experience to formalise this particular category of experience as rush. To the practitioner, rush is a single tangible experience. To the analyst, it may be seen as the simultaneous experience of flow and thrill. Experiences which provide rush are often risky, but it is rush rather than risk which provides the attraction. Rush is addictive and never guaranteed, but the chance of rush is sufficient motivation to buy adventure tours.

## **1. Introduction**

### *1.1. Significance*

The motivations of adventure tourists are significant for tourism both as a category of human behaviour and as a trillion-dollar global industry. From a social science perspective, adventure tour clients make conscious choices to allocate discretionary time and funds to adventure activities, with no material gain. Their reasons and rewards for doing so thus provide insights into human psychology (Arnould & Price, 1993; Arnould, Price, & Otnes,

1999; Crompton, 1979; Holyfield, 1999; Holyfield & Fine, 1997; Jonas, 1999).

From the commercial perspective, knowledge of clients' motivations helps tour operators construct products (Buckley, 2007), design marketing strategies (Buckley, 2003; Gilbert & Hudson, 2000; Williams & Soutar, 2009), choreograph client experiences (Arnould et al., 1999; Holyfield, 1999; Holyfield & Fine, 1997; Jonas, 1999; Pomfret, 2006; Sharpe, 2005), and defend accident lawsuits (Yerger, 2004-2005).

### *1.2. Risk recreation paradox*

Adventure tourists pay for risk recreation activities (Breivik, 1996; Lipscombe, 2007; Page, Bentley, & Walker, 2005), but adventure tour operators aim to minimise risks (Buckley, 2006; Cater, 2006; Morgan, 2010). The orthodox response to this paradox (Buckley, 2010a; Cater, 2006) is that adventure tour operators sell their clients the semblance of risk so as to confer social capital (Bartkus & Davis, 2009; McGillivray & Frew, 2007), whilst protecting them from real risk so as to avoid illness and injury, medical and legal costs, and poor publicity.

This contribution proposes that the orthodox resolution applies only to adventure tour products designed for unskilled clients. At the skilled end of the adventure tourism spectrum, I argue that clients are in fact motivated not by risk but by a particular type of experience referred to here as rush. This appears to be the first formal recognition, description and analysis of rush. Sensations which seem to correspond to rush, as defined here, have been mentioned by participants in some previous studies, but as “ineffable” or “indescribable” (Allman, Mittelstaedt, Martin, & Goldenberg, 2009; Bratton, Kinnear, & Korolux, 1979). Thus Lyng and Snow (1986) refer to the “admonition that ‘if you want to know what it’s like, then do it’”. Brymer and Oades (2009) quote a BASE jumper: “you can’t even begin to try to make someone who hasn’t done it understand”. And Bratton et al. (1979, p. 24) use a classic quotation from “the immortal Mallory”: “if you have to ask why men (*sic*) climb, you wouldn’t understand the answer.”

For active participants in adventure tourism, rush is a clear, distinct and self-contained concept. It is widespread in the marketing materials of adventure tourism and the popular literature of adventure recreation. Examples include: a wingsuit skydiver quoted by Midol and Broyer (1995); snowboard racer Jeremy Jones, quoted by Heino (2000); or skateboard freestylist Mat Hoffman, quoted by Higgins (2010). It is a common component in conversation between clients on commercial adventure tours. In this contribution I argue that rush can be understood as a formal academic concept, despite claims by many adventure exponents that it can only be appreciated if experienced in person.

### *1.3. Approach*

This contribution aims to communicate and formalise a concept which previous authors, both popular and academic, have referred to as comprehensible only to those who have experienced it, and indescribable to those who have not. The approach taken here is thus principally autoethnographic, i.e. drawn from the author's own experiences. If, in the views of previous authors, personal experience is critical to comprehension, then an autoethnographic basis is the only approach available.

It is also ethnographic, drawn from extended lived experience as part of a set of subcultural groups, the exponents of various forms of skilled outdoor recreation. There are many types of ethnography and autoethnography, and all of them balance the details of record against the depth of involvement. Approaches which involve interviews, recording devices and note-taking visible to participants may bias their behaviour and restrict their conversation, and interfere with the researcher's ability to identify with their experiences. The most fundamental autoethnographic approach involves living as one of those under study, and reflecting and recording only when such interaction and immersion is not under way. This is the method adopted here.

The approach is also analytic, in the sense that it attempts to identify key aspects of those experiences, distil them to irreducible components, and show their relationships to pre-existing concepts. Finally, it contains an unusual element, an attempt to communicate this

supposedly indescribable experience to readers who may not themselves have lived through it. The communication mechanism is a set of short descriptive vignettes. This is more closely analogous to creative writing or drama than to academic analysis. It is a routine component of novels or movies, for example, which aim to generate emotional empathy in their audience, for circumstances which the audience have not themselves experienced in person. In the technical academic literature of tourism research, however, materials are commonly used only as a basis for content or discourse analysis.

Autoethnographic approaches have been rather little used in tourism research. Ryan (2005), Ryan and Stewart (2009) and Buckley (2006, 2010a, 2010b) do effectively use such approaches, but not explicitly. These approaches have a longer history in sport and leisure research (Allen-Collinson & Hockey, 2011; Ewert, 1985; Holyfield, 1999; Irwin, 1973). Standard reference books on qualitative research methods, such as that by Silverman (2011) include ethnography but not autoethnography. In the literature of ethnography (Chang, 2008), there is a division between analytic autoethnography (Anderson, 2006), which uses the researcher's experience as a source of data; and evocative autoethnography (Ellis, 2004), which uses creative writing to convey the emotional components of experience. This contribution uses both analytic and evocative approaches.

As in all qualitative social science research, the author owes the reader a responsibility to reveal his or her own role in the group under study. Details are described in Section 4, but in brief, this article arose from the author's experience as a participant in commercial adventure tours over the past 15 years. This included roles as client, guide, and ancillary staff. These roles were made possible through skills gained previously in individual outdoor recreation. They included extensive conversation with other participants, and familiarity with popular literature in the form of specialist outdoor recreation magazines, DVDs and marketing materials. This lived experience was not undertaken solely or specifically to study motivations, but it provides the raw material drawn upon here: the analytic autoethnographic approach advocated by Anderson (2006). The ethical concerns associated with autoethnographic approaches (Tolich, 2010) are avoided, as no person other than the author is quoted, described or identifiable in this text.

As in many such studies, the components could be presented in a variety of different ways. The structure used here is as follows. First, previous literature on adventure motivations is reviewed, including a summary table identifying 14 distinct categories. Second, rush is defined as a formal concept, and distinguished from prior related concepts. Third, the circumstances providing autoethnographic experiences and ethnographic information on rush are outlined. Fourth, this information is summarised for five outdoor adventure activities, each including a vignette to communicate how rush is experienced by the participant. Fifth, findings are synthesised to present rush as an individual psychological experience, as a motivation in adventure tourism, and as a counterpart to risk.

Under this structure, the analytical formalisation of rush is introduced before the autoethnographic components are presented. The reason for this order, rather than the reverse, is to situate rush relative to other relevant and related concepts such as flow and peak experience, and to provide context for the vignettes which illustrate rush from the participant perspective.

## **2. Adventure motivations**

There are ~50 previous studies of participant motivations in adventure tourism and recreation, and these have identified at least 14 different categories of motivation, using a variety of terminologies. These are summarised here in Table 1. Age, gender, activity, difficulty, prior skill, definitions and analytic methods differ between studies, with no overall patterns apparent. Climbing and mountaineering have been studied most frequently, with at least 15 analyses in the past three decades (Berger & Greenspan, 2008; Bratton et al., 1979; Breivik, 1996; Carnicelli-Filho, Schwartz, & Tahra, 2010; Delle Fave, Bassi, & Massimini, 2003; Ewert, 1985, 1993, 1994; Feher, Meyers, & Skelly, 1998; Kiewa, 2001; McIntyre, 1992; Mitchell, 1983; Pomfret, 2011; Rossi & Cereatti, 1993). There are  $\geq 11$  analyses of whitewater rafting and kayaking (Arnould & Price, 1993; Arnould et al., 1999; Carnicelli-Filho et al., 2010; Cater, 2006; Cater & Cloke, 2007; Fluker & Turner, 2000; Holyfield, 1999; Holyfield & Fine, 1997; Jones, Hollenhorst, Perna, & Selin, 2000; McGillivray & Frew,

2007; Wu & Liang, 2011);  $\geq 7$  of skydiving and parachuting (Allman et al., 2009; Carnicelli-Filho et al., 2010; Celsi, Rose, & Leigh, 1993; Klausner, 1967; Laurendeau, 2006; Lipscombe, 1999; Lyng & Snow, 1986);  $\geq 6$  of surfing and sailboarding (Buckley, 2002a, 2002b; Dolnicar & Fluker, 2003; Farmer, 1992; Irwin, 1973; Wheaton, 2000);  $\geq 2$  of skiing and snowboarding (Gilbert & Hudson, 2000; Heino, 2000); and at least one each of mountain biking (Hollenhorst, Schuett, Olson, & Chavez, 1995), and off-road driving (Williams & Soutar, 2009). There are also at least nine which consider multiple adventure activities simultaneously (Brymer & Oades, 2009; Cheron & Ritchie, 1982; Ewert & Hollenhorst, 1989; Midol & Broyer, 1995; Page et al., 2005; Patterson & Pan, 2007; Schrader & Wann, 1999; Slinger & Rudestam, 1997; Swarbrooke, Beard, Leckie, & Pomfret, 2003).

Three themes from these previous studies are particularly relevant to the current contribution. First, there is a spectrum of skills from novice to expert (Buckley, 2007, 2010a; Varley, 2006). The former generally want choreographed and comfortable fun (Cater, 2006; Pomfret, 2006); the latter emphasise individual control and responsibility. Second, very few people at any skill level nominate risk as a motivation, and several studies specifically excluded it (Bratton et al., 1979; Cater, 2006; Delle Fave et al., 2003; Ewert, 1994). Third, most of the authors were not expert in the activities examined, with only one or two exceptions (Bratton et al., 1979; Laurendeau, 2006) and there are few autoethnographic accounts (Ewert, 1985; Holyfield, 1999; Irwin, 1973). Descriptions by Sharpe (2005), Pomfret (2006), Wong and Wang (2009) and van Dijk, Smith, and Cooper (2011), are of routine guiding, not client experiences. Indeed, autoethnographic approaches are generally uncommon in recent tourism research (Stronza & Durham, 2008; Tribe, 2010), with a few exceptions such as Ryan and Stewart (2009) and Buckley (2010b).

### **3. Theoretical framework**

#### *3.1. Scope and definitions*

Rush is a particular kind of excitement associated with the physical performance of a specific adventure activity, at the limits of individual capability, under highly favourable

circumstances, by a person who is already skilled and trained in the activity concerned. Opportunities for rush are often associated with risky activities; but rush is quite distinct from risk, and I argue here that it is rush rather than risk which provides the attraction.

This contribution aims to communicate the concept of rush through an ethnographic and autoethnographic approach; and to formalise it analytically as a combination of thrill and flow (Csikszentmihalyi & Csikszentmihalyi, 1990), which forms one highly specific type of peak experience (Maslow, 1977). That is, rush is a type of thrill which also involves flow, or a type of flow which also involves thrill, and the combination generates a special category of experience recognisable to adventure participants. This contribution argues that skilled adventure tourists seek maximum rush for minimum risk, and tour operators aim to provide it. From a human psychology perspective, rush is a concept which has wide relevance beyond adventure tourism. In adventure tourism specifically, it allows a more penetrating insight into client motivations than approaches based only on flow or risk.

There are a number of academic concepts related to rush, including: flow, peak experience, edgework, sensation seeking and serious leisure. These do not form part of popular literature and conversation. For the reasons outlined below, rush is distinct from each of these.

### *3.2. Flow and thrill*

As defined here, rush involves the simultaneous experience of thrill and flow. To say that rush combines thrill and flow does not convey the experience fully; but it is the closest available approximation using concepts which already exist in the literature of adventure motivations, or indeed human psychology more broadly. Thrill does not necessarily involve either skill or flow; and flow does not necessarily involve thrill. The concept of flow (Csikszentmihalyi & Csikszentmihalyi, 1990), applies broadly to any form of skilled activity where the exponent's mental focus coincides fully with their physical practice, so that they are "intensely absorbed" (Heo, Lee, McCormick, & Pederson, 2010). A musician, a surgeon, a yogi or a chef can experience flow. A number of previous studies have examined the role of flow in adventure activities, but without linking it to thrill; and in at least some cases, concluding that flow

alone is not a useful concept in analysing adventure motivations (Jackson & Marsh, 1996).

The concept of thrill refers to a purely adrenalin-based physiological response unrelated to expertise. A person who takes a bungee jump or wins a lottery may experience a thrill. Both compulsive gambling and violent crime have also been reported to produce an addictive thrill (Lyng & Snow, 1986). None of these, however, include the flow component critical to rush as described here. A number of previous studies have identified thrill as one motivation in adventure tourism and recreation: but only in the sense of fun or short-term excitement (Cater, 2006), or satisfaction through achievement (Kiewa, 2001; Slinger & Rudestam, 1997); not in the sense that it is used here, as a component of rush. One or two previous authors have used alternative vernacular terms for this thrill component, such as “whiz” or “kick” (Midol & Broyer, 1995), or “buzz” (Brymer & Oades, 2009, quoting Bane, 1996; Patterson & Pan, 2007; Wheaton, 2000, quoting a sailboarder).

There are thus many kinds of thrill, and many kinds of flow, which are independent of each other and are not associated with adventure tourism. The concept of rush refers to the simultaneous experience of thrill and flow associated with the successful performance of an adventure activity at a high level of skill. In the vernacular of adventure activities there are also associated terms, such as amp or stoke (Mentawai Sanctuary, 2010), meaning an extended state of elevated enthusiasm which continues well beyond the activity itself. The concept of rush, as an integrated type of experience, thus resists division into component parts of thrill and flow.

### *3.3. Peak experience*

Rush may be considered as one very particular form of peak experience, in the sense of Maslow (1977). Peak experience, however, is a very broad concept which can be associated with a wide range of mental, spiritual, creative or violent activities which bear little resemblance to outdoor adventure recreation. According to Bratton et al. (1979), Lyng and Snow (1986), Lipscombe (1999), and Varley (2006) peak experience can be associated with art, music, drugs, or even academia. From an autoethnographic perspective, however, none of

these correspond to the experience described here as rush. Some of them, e.g. in the case of dancers, singers or musicians, may indeed involve a combination of skill, control and emotion analogous to rush, but it is not the same emotion. Certain recreational hallucinogenic drugs, notably mescaline and psilocybin, have been reported as producing effects with all the hallmarks of peak or indeed religious experiences (Griffiths, Richards, Johnson, McCann, & Jesse, 2008), but without the skill and thrill components of rush. Similarly, whilst there may well be skills and thrills involved in high-level intellectual and creative endeavours, these are mental rather than physical, and lack the immediate connection between thought and action which characterises flow.

The construct of peak experience is theoretical rather than empirical, intended to apply to people in all walks of life, and thus too broad and vague to be recognisable as a real-life motivation for actual retail clients to purchase commercial adventure tourism products. Indeed, Maslow's perspectives on peak experience have been criticised as lacking empirical evidence (Wahba & Bridwell, 1976). Peak experiences, perhaps, can only be recognised retrospectively by the individuals involved (Cunningham, 1999, p. 98; Eco, 1988, pp. 632-633). Rush, on the other hand, is something that adventure tourists recognise and refer to routinely, as a very concrete physiological and psychological sensation which they can and do look forward to.

To define rush only as a peak experience during an adventure activity, therefore, does not successfully convey the concept as a type of motivation in adventure tourism. This approach to defining rush is therefore also inadequate.

#### *3.4. Edgework*

The concept of edgework was derived originally from a classic book on recreational drug abuse by Thompson (1971), and introduced into the academic research literature by Lyng and Snow (1986) and Lyng (1990). The basic concept of edgework is that some people like to see how close they can get to death but still escape. Essentially, Lyng's perspective is that people who engage in high-risk sports or adventure, people who consume particularly intoxicating

mixtures or amounts of recreational drugs, people who deliberately enter areas of violence or armed conflict, people who illegally race streetcars on the highway, and so on, all share a common motivation, known colloquially as flirting with death (Midol & Broyer, 1995; Schrader & Wann, 1999). There are indeed some echoes of this in the writings of adventure recreation, especially in mountaineering expeditions (Krakauer, 1996). Blanchard, quoted by Ralston (2005), went beyond flirtation and described a climb as “like having sex with death”. Commercial adventure tourists, however, do not identify risk as a major motivation; in fact quite the opposite (Schrader & Wann, 1999). They calculate risks carefully, take all available safety measures, and are not at all reckless. Their actions thus do not fit the concept of edgework.

There are indeed categories of adventure recreation which are extreme in the sense that any mistake or miscalculation is likely to be fatal (Brymer & Oades, 2009; Midol & Broyer, 1995; Simpson, 1993, p. 119, quoted in Pomfret, 2006; Slinger & Rudestam, 1997). Individuals who engage in these activities, however, calculate risks very carefully and take all possible steps to minimise them. They play the odds only in the sense that if several misfortunes occur simultaneously, they will suffer severe consequences; but they are not reckless in the sense of exposing themselves needlessly to unknown risks. Some death-defying activities can generate a rush in the sense described here, but rush need not be death-defying: it is a different concept from edgework.

The idea of sensation seeking, proposed by Zuckerman (1971, 1979) is distinguishable from rush on two main criteria. The first is that rush is a type of experience, whereas sensation seeking is a type of personality or lifestyle orientation. The second is that whilst adventure participants craving rush experiences may well have sensation seeking personalities (Schrader & Wann, 1999), the reverse does not necessarily apply: different individuals may seek many different types of sensation.

### *3.5. Serious leisure*

The concept of “serious leisure” advanced by Stebbins (1982) is clearly quite distinct from

that of rush, but there are some points of contact. Serious leisure requires involvement and commitment over an extended period of time. Commonly, this includes the gradual development of skills, and increasing identification with the activity concerned. Skilled exponents of any particular adventure activity generally do have a leisure career in Stebbins' sense: that is how they gain skills and experience. Since rush involves thrill and flow, and flow generally requires skill, we may hypothesise that rush experiences should be more commonplace amongst those who have developed a serious leisure career. The reverse, however, does not necessarily apply, since many types of leisure do not necessarily involve either thrill or flow.

Commercial adventure tourism enables many people to experience outdoor adventure activities as a passenger, without having to learn the skills to carry out those activities in person. A person can buy a tandem parachute jump or a place on a Class V whitewater raft trip, without any skill or prior experience at all (Buckley, 2006, 2007). Some authors have complained that the experience of an adventure tourism client is a mere pastiche of adventure as traditionally defined (Varley, 2006); some have noted the element of choreography in commercial adventure tours (Pomfret, 2006; Sharpe, 2005); some refer to a continuum in the degree of commodification (Varley, 2006); and some suggest that commercial adventure tours can act as "markers" in serious leisure "careers" (Kane & Zink, 2004).

None of these propositions are mutually exclusive, and indeed, they may all be correct for different subsectors of the adventure tourism market. A one-day raft trip from a well-known adventure destination, aimed principally at inexperienced backpackers, is very different from a multi-day commercial rafting trip which sets out to run a first descent of a remote river. Similarly, a single tandem parachute jump from a heavily-used airport is very different from a commercial tour for expert skydivers to jump onto the North Pole. One could expect that clients taking part in tours that involve greater individual skill and participation would be more likely to report rush experiences.

#### **4. Methods**

The concept of rush, as a formal academic construct, arose from a long-term comparison between the practice and the literature of adventure tourism and recreation. Data on practice are derived from direct involvement, as a moderately skilled commercial client or other participant, in >100 commercial adventure tours in 30 countries over 15 years. This includes direct personal experience of the risks associated with each activity, as well as the rush. Five activities are considered here: heliboarding, whitewater kayaking, surfing, sailboarding and kiteboarding. These activities are illustrated in Buckley (2006, 2010a).

Through immersion in these activities I obtained an emic or insider experience of participant behaviour and motivations, both my own and others'. As noted by Kiewa (2001) and Sharpe (2005), establishing insider status is essential in ethnographic research. This experience includes both direct observations, and informal conversation amongst participants (Kellehear, 1993). Multiplying the total number of participants by the total length of each tour indicates that the overall scale of this essentially ethnographic dataset is around 5-10 000 person-days, with over 3000 person-days in rafting tours alone. As in focus group discussions, not all those present contribute equally to such conversations. A more conservative measure includes only participants with whom I maintained continued and active conversations: other kayakers on a mixed raft-kayak whitewater tour, or other members of the same heli-group in a mixed heliski-heliboard tour. This indicates around 900 person-days of data for whitewater kayaking, 700 for heli-boarding, and successively fewer for the other activities.

Considering the academic literature on motivations in adventure tourism and recreation as summarised in Table 1, it became clear that it contains a recurrent but unexplored theme, that of the indescribable or ineffable experience known only to active participants. Comparing this to the ethnographic and autoethnographic experience as above, indicated that this undescribed component in academic analysis is in fact a key topic and motivation amongst practitioners. This is the concept I refer to here as rush. Comparing my own psychological experience of rush, supported by that of co-participants, to the many previous theoretical concepts summarised in Section 3, it became apparent that it is not the same as any of them. Indeed, if it were, it would not be referred to as indescribable. Therefore, in this contribution I attempt both to formalise this concept, and to communicate it.

Rush is an unfamiliar experience, specific to skilled adventure exponents. Motivations of tribal societies, creative artists, religious drug users, criminals or compulsive gamblers are also unfamiliar to broader society, but are studied none the less (Bratton et al., 1979; Lipscombe, 1999; Lyng & Snow, 1986; Varley, 2006). Rush involves intense mental concentration and physical coordination coupled with elevated adrenalin levels. It has an emotional component, and indeed, a number of authors have commented on the role of emotions in adventure tourism experiences (Arnould & Price, 1993; Gilbert & Hudson, 2000; Holyfield, 1999; Sharpe, 2005; van Dijk et al., 2011). There are techniques to measure emotions (Richins, 1997). The approach adopted here to convey the emotional component, however, is through first-person accounts. These events and emotions were recorded at the time, but personal recollections are more relevant. A psychological experience exists in the memory of the person who experienced it, and it is that memory which provides future motivations. “Adventure can be remembered, but never relived” (Holyfield, 1999, p. 8). Records may help to trigger memories; but once triggered, recollections are more powerful than records.

To communicate the concept of rush, therefore, I present here a set of autoethnographic vignettes, one from each of the five adventure activities addressed. For each of these, I also provide firstly, an outline of the structure of the commercial adventure tourism subsector concerned; and secondly, a brief review of the risks involved, so as to distinguish risks from rush. From the commonalities between these vignettes, and the broader ethnographic base derived from other participants, I then extract a summary of rush both as an individual psychological experience, and as a motivation in the purchase of commercial adventure tourism products. The contribution concludes by outlining a context to incorporate this concept into future research.

## **5. Autoethnographic data**

### *5.1. Snowboarding*

The commercial heliboarding industry is described by Buckley (2006, 2010a). It offers its clients comfortable guided access to untracked powder snow on prime terrain. Prime terrain includes steep chutes and ridges, and especially steep tree glades. Steep tree-covered slopes provide the best boarding of all, because they hold the deepest lightest snow on the steepest terrain. Such terrain incorporates unavoidable risks. Trees create tree wells. These are hidden cavities of very soft and potentially suffocating snow which can form around the trunks and lowest branches of coniferous trees, creating almost inescapable traps for a solitary skier or snowboarder. Steep slopes often include cliffs, and steep deep snow often avalanches. Heliboard operators and clients take routine measures to minimise these risks (Buckley, 2006, 2010a). Riding steep, deep powder through tight tree glades requires considerable concentration and coordination. The trees are unevenly spaced, visibility is restricted, and tree wells are an ever present concern. This thus provides the combination of thrill and flow which constitutes rush.

The risks are very real. I myself have fallen into tree wells, and rescued others. I once hit a tree so hard it took many months for my ribs to recover, and my head was saved only by my helmet. I have helped rescue people from avalanches, and I once set off a large, lethal block-slide avalanche, and escaped only by good luck and some very high-speed riding. I once came within 20 cm of riding over a 100 m, rock-strewn and certainly fatal cliff, a memory which still produces a cold sweat. These risks are deterrents, not attractors. It is the rush which is the attraction.

*The helicopter drops you at the top of a long, steep, completely untracked slope of deep, fine, dry powder stretching far away between the trees. The sun is shining and the air is sparkling with diamond dust. There might be five of you, or 10. You ride in an arrowhead pattern, and this run, it is your turn at the front. You are riding fast, with the rest of the crew right behind you, and then ... you ride over a roll and the slope drops away, perhaps another 10 degrees steeper than above. Already you are riding at the limit of your ability, and now you have to ride faster still. It takes such concentration that you can barely breathe and dare not blink. You cannot make big turns to slow down because you would be blinded by the clouds of powder - in fact, you have to make*

*smaller turns, which means even faster. Suddenly, the ground levels out, you become aware that your heart is going like a jackhammer, your lungs are gulping and your eyeballs, which seem to be protruding much further than normal, are retracting back into their sockets. Your thoughts and emotions, which had somehow vanished entirely, rush back and burst out in a soundless gasp. That is rush.*

## 5.2. Whitewater kayaking

The structure and geography of the commercial whitewater kayaking industry are outlined by Buckley (2006, 2009, 2010a, 2010b). This activity requires skilled reading of river flows and features coupled with precise body and paddle movements, combining perception, power and precision at high speed. Risks in whitewater kayaking include: collisions; being pinned underwater against rocks or dead trees; being held underwater by recirculating river features; and being forced or sucked to the bottom of the river by crashing waves or whirlpools. I have experienced all of these, some of them life threatening. Routine measures to reduce risk include: helmet and lifejacket, prior training, expert guides, and careful inspections and decisions whether or not to run each rapid. With skill and caution, every rapid provides a rush. As an example, here is one such experience, from the first and apparently the only descent of the rapid “No Exit” on the Mekong River in Yunnan, China (van Beek, 1998).

*The river, which is large and wide, pools up above a constriction in its rocky banks, and pours over in a giant series of waves, boils and stoppers, which are standing waves with continually breaking whitewater. We scouted this rapid from the banks for hours; and ultimately, only one kayak and one raft attempted it. Its most dangerous feature is a large “pourover” near the end of the rapid, a place where the water pours over a submerged rock to form a curved stopper which can trap a boat and person indefinitely. To avoid being swept into this, the kayaker must: pick a precise entry point in the centre of a wide and roaring river; punch upward through the lip of an exploding green wave at full speed with split-second timing; spin diagonally upstream on the back of the wave and paddle several strokes at full power; and spin again and crash through a*

*diagonal wall of broken water. There is no room for the smallest error, failure of balance, or loss of paddle power throughout this sequence. Below this, there is a series of large waves, which later threw a fully-laden 7-m raft completely clear of the water; but it is the top section which is the crux. It is difficult to convey the intensity of the rush in running this rapid: even recalling it >15 years later brings on emotional symptoms.*

### 5.3. Surfing

The commercial surf tourism industry has been described by Buckley (2002a, 2002b, 2003, 2006, 2010a) and Dolnicar and Fluker (2003). Surfing needs balance, coordination and timing; an ability to read waves and currents; and for the larger and more violent waves ridden by experts, a considerable degree of courage. Surfing can carry significant risks. One can be flung headfirst onto rocks, coral or a shallow sandy seafloor, with skull or spinal injuries or concussion and death by drowning. Violent falls from the lip of a large wave can cause neck and spinal whiplash injuries. One can be held underwater by successive breaking waves, unable to draw breath. Cuts and collisions, tropical ulcers and stinging jellyfish are common; sharks, stonefish and leg-rope injuries less so. With good surf, however, several waves each session can provide a rush. The particular experience used as an example here is from the Mentawai Islands in Sumatra, Indonesia, one of the icon destinations for surf tourism.

*Your boat drops anchor by an island reef, with swells peeling off in giant glassy walls. Three of you jump off the boat and paddle to the break. A swell like this in the USA, Europe or Australia would have a couple of hundred surfers in the line-up. You start with a couple of smaller waves breaking wide and slow. They wall up steeply, fast and clean, sucking back from the reef to show jagged coral branches below, and the evening sun reflects up like pools of blood. But the bigger swells, the set waves, are breaking further back up the reef. You move into position and paddle onto a boomer, heart in mouth. The bottom turn is so hard and fast it flings spray. You line up high under the lip for maximum speed and gun down the face.*

*The wave is walling up far, far ahead, faster than you expected, but there is no stopping now. The lip pitches over everywhere at once and the setting sun flares along it, and for a moment you are looking along a giant vertical half-tube of flame. Then it closes over your head and from the corner of your eye you can see a red sun shining through a blue-green translucent sheet of water. There is no time to think; there is nothing to hold onto; there is only the instantaneous impression of being perfectly poised on a perfect wave. It lasts, in fact, long enough for you to realise that there are many instants, that the instants are stretching, perhaps to a second or several. You are aware, subliminally, that the tiniest lapse could suck you up the face of the wave and hurl you violently out and down. But that thought does not actively surface in your brain. You are aware, subliminally, that this is one of the best waves you have ever caught - if you don't fall, and as long as the wave doesn't close out ahead of you and leave you trapped inside breaking whitewater. But you don't, and it doesn't, and as the wave dies away into the channel section you hurtle over the back into calm water, still flying. If your life is defined by surfing, your surfing is defined by that wave.*

#### 5.4. Sailboarding

Sailboarding is described by Wheaton (2000) and Buckley (2006, 2010a). Sailboard tourism is relatively small but growing rapidly: it has specialist travel operators and magazines, and icon sites and different board designs for different conditions. Risks include: violent collisions with the board; fin chops; and twisted knees and ankles if feet get stuck in footstraps during a wipeout. Helmets and harnesses are standard. To provide a contrast to the surfing and kiteboard cases, the experience described here is for flat water speed sailing.

*There is a gale blowing across a low sandbar in the middle of a wide lagoon. Behind the bar, there is a powerful wind across a glassy flat water surface. You are riding your speedboard, a long straight carbon/epoxy toothpick which planes on a tiny almond-shaped wetted area around the fin. Sometimes it lifts so that only the fin is in the water, and you must use the footstraps to hold the board level*

*between wind on the sail and water on the fin. On this board you can travel 100 m in 4 s, about 90 km/h. When you fall, you bounce. The wind is howling and everyone else is on shore. As you start your next run, a jetski passes you at full speed. You see the dark catspaw on the water upwind of the sandbar, sure sign that a strong gust of wind is on its way. You brace and lean into it, and the board leaps forward like a flying fish. From the corner of your eye you can see the other sailboarders leaping and yelling on shore, and suddenly there is the jetski just in front of you - and beside you, with the rider furiously twisting the throttle - and behind you, as the board puts on a sustained burst of speed that seems to have sucked the air from your lungs. Is it any wonder that such a moment is memorable for decades?*

### 5.5. Kiteboarding

Growth in kiteboarding is even more recent than for sailboarding. Kiteboarding equipment packs compactly, however, and kiteboard tourism is growing. Most kiteboarders use short wakeboard-style boards with footstraps, and a curved flying wing attached to a harness by four 25-m lines, steered by a control bar on two of the lines. Kiteboards can be ridden on waves as well as flat water, and experts can jump up to 12-15 m above the water for up to 3 s airtime. Intermediate kiteboarders can routinely jump 5-8 m vertically. Risks include cuts, collisions, twisted knees and ankles, being dragged uncontrollably through the water or across the beach, and becoming tangled in the lines, which could be fatal if wrapped around the boarder's neck. Helmets and harnesses are standard.

*It is a beautiful sunny summer's day on a subtropical coast, a metre-high swell breaking on an offshore sandbar, and a 25-knot diagonal onshore wind. To jump high, you sail fast at a nearly-breaking wave, and as you hit it you turn the kite back towards the shore. This swings you up into the air like a giant pendulum at the end of a 25 m string. As the lift slackens you turn the kite back to sea again, for a second lift and gentle landing. If you make a mistake in timing or positioning, it can get very messy. With enough skill and luck, however, you are*

*plucked from the ocean as if by an invisible hand, and suspended as high as a three-storey apartment building, with an instant or two to appreciate it before dropping back to the water surface. This is such a rush that your heart seems to stop for several seconds after the landing, and it needs a conscious effort to take the next breath.*

## **6. Discussion**

### *6.1. Rush as a psychological experience*

Rush is a new construct in the academic literature of adventure tourism, recreation and sport. It is a longstanding concept in the popular and vernacular literature, but that literature considers it indefinable. I have argued here that it can indeed be defined formally, as a combination of thrill and flow. This is not, however, how it is experienced by an individual. From the participant perspective, rush is a unified, intense and emotional psychological experience.

According to the popular literature, rush is not a universal experience, but a rather rare one, available only to exponents who have invested time in acquiring particular skills. There is thus an element of elitism, captured in commercial marketing slogans such as “Only a surfer knows the feeling” (Billabong, 2011). In this contribution I have tried to communicate that experience through vignettes from particular adventure activities. I argue that rush experiences are readily comprehensible by all. Indeed, they are familiar through a variety of action and adventure movies, which create emotional responses in their viewers even though the viewers have not themselves experienced the activities portrayed. That is, I have tried to use the techniques of artistic or evocative autoethnography to convey directly the experiences which I also examine through analytic autoethnography.

Clearly, there is a hormonal component to rush experiences, namely strongly elevated adrenalin levels associated with thrill. High adrenalin boosts muscles and senses to maximum capacity. At the same time, one must stay calm and controlled enough to carry out a precise

series of movements, and to monitor one's own actions and their consequences at a very fast and fine level of detail. This provides the sensation of flow. The overall result can be a life-defining experience, moments to remember on one's deathbed.

Rush is addictive. Whatever the precise combination of human hormones it may involve, a person who has once experienced a rush is likely to pursue that experience again. In addition, if a person continues to repeat the same activity at the same level of skill and difficulty, rush may turn to boredom: as with most addictions, a person needs ever-increasing doses to maintain the same degree of response. A person learning a new adventure activity can get a rush from performing that activity even at a basic level: for example, when a person first succeeds in standing up on a surfboard, riding a snowboard on a groomed slope, or running an easy rapid in a whitewater kayak. As an individual's skill increases, however, those achievements no longer provide the same reward. To get the same level of rush, the same individual now needs to get a good ride on a fast steep wave, or a fast run through a black-diamond tree glade, or a successful descent of a difficult and dangerous rapid. Alternatively, they may generate rush by performing the same activities at the same overall degree of difficulty, but in a new and previously unfamiliar place. This is one of the primary drivers for adventure exponents to purchase commercial adventure tours.

In all the adventure activities described above, there are also experts whose capabilities are far, far beyond those of the author. There are snowboarders who ride sixty-degree slopes, narrow couloirs with cliff sections, and cliff drops of 30 m or more. There are kayakers who successfully paddle Class VI ("unrunnable") rapids or 30-m waterfalls, and live to tell the tale. There are surfers who keep their poise on death-defying rides on giant and mutant waves: where the lip is metres thick and the wave drains water off the reef to expose bare coral; or where the surfer has to jump a ledge of water at full speed inside the barrel; or where the lip pitches out horizontally at the top of a vertical face; or which form a face like terrifying giant claws several storeys high. At this level, people do indeed die or suffer very serious injury. There are no commercial tours at this level, and the rush is indeed hard to imagine.

## *6.2. Rush as a motivation in adventure tourism*

The more skilled an individual becomes at a particular activity, the more strongly the opportunity for rush depends on conditions; and hence the greater the attraction of particular places and opportunities. In any given adventure activity, there is a hierarchy of iconic destinations which are perceived as providing the best conditions for the most skilled exponents, though generally beyond the capabilities of less skilled individuals. These hierarchies are not immutable, but change according to: season and weather; the ongoing discovery of new sites; and the continuing progression of expert ability in most activities, whereby feats previously considered impossible gradually become commonplace. It is this hierarchy, together with the geopolitical issues and infrastructure, which determines the geography of adventure tourism (Buckley, 2010a, pp. 17-30).

From the perspective of an individual aficionado of the activity concerned, however, the argument advanced here is that once they have sufficient skill, these iconic sites provide better opportunities for higher-level rush than anywhere else; and it is in search of this rush that these aficionados pay commercial adventure tour operators to take them to the sites concerned.

In the same way that emergency communications make up only a tiny proportion of total time for commercial whitewater rafting tours (Buckley, 2010b), the proportion of time during any adventure tour when a particular client may experience rush, in the sense used here, may be very small indeed, perhaps <0.01% of the total duration of the tour. This proportion also varies enormously between different adventure activities. High-altitude mountaineering, for example, may involve many weeks of arduous conditions in order to gain a summit (Delle Fave, Bassi, & Massimini, 2003; Hales, 2006). Even for skilled surfers, the aggregate lifetime period spent inside the barrel of a wave may be measured only in minutes. For someone kayaking a steep creek with continuous rapids, or climbing a difficult and exposed rock or ice face, the rush may extend throughout the entire creek or climb. These crux sections, however, are likely to take up only a small proportion of an adventure tour as a whole. Running the rapid “No Exit”, described earlier, took perhaps 1 min out of a month-long journey. Arnould

et al. (1999) refer to the crux rapid in their study as “30 seconds in the rapid, 5 days in the canyon”.

Rush is never guaranteed, despite the best efforts of the tour operator. It depends on: the vagaries of weather; the quality of the snow, surf, wind, water or other features of the natural environment; and the ability, health and mood of the individual client or participant. For individuals who are motivated by rush, however, the experience is so valuable to them that they are prepared to expend considerable time and money in order to increase the likelihood of a rush experience, even though they know that there is no guarantee. Of course, it is also possible for a client to have many rush experiences during a single adventure tour. Depending on the activity, a rush experience might last from less than a second to minutes or, at most, hours. This does not mean that the rest of the tour is wasted; only that it is less intense. It may provide many other enjoyable experiences and match many other motivations. My argument here is simply that for those who are indeed motivated by rush, all these other factors pale into insignificance in comparison with the mere possibility of the rush experience. It is the opportunity, or at least the hope and chance, to experience moments of rush which persuade experienced outdoor recreation enthusiasts to pay for top-tier commercial adventure tours.

### *6.3. Risk and rush*

Participants in high-skill adventure tours are aware of the risks and face them as part of the experience, but not part of the attraction. The risks of injury are simply an unavoidable aspect of trying to harness powerful forces of nature through a small piece of specialised equipment, attached to one's body. Risks are an unavoidable corollary, but it is rush that skilled adventure tour clients are seeking. Running across busy roads, for example, could provide risks without rush, but this is not something that people pay for.

For each of the adventure activities considered here, I have outlined both the factors that create rush, and the factors that create risk. There are similarities between all of the activities described. All of them generate rush through harnessing gravity or fluid flow by using relatively simple but finely designed mechanical equipment with a high degree of human

skill, which must be learned and which requires intense concentration and coordination. The risks are due to the likelihood and potential severity of injuries if this coordination fails or the skill is not sufficient, and are mostly associated with the possibility of violent collisions with sharp or unyielding objects.

There are other entire classes of adventure activities which involve, e.g., riding animals, or wheeled and/or motorised equipment, often at high speeds, and these have their own sources of rush and risk. Beyond the level of commercial adventure activities, there are individual activities which require extreme skills and courage, and no doubt produce a correspondingly greater rush, as noted earlier. There are BASE jumpers, for example, who use wingsuits to fly past cliffs at high speed. There are motorbike riders who jump from ramps onto high-rise buildings - and back down. These, however, typically take even greater care over planning, practice and safety than intermediate exponents. There is no evidence that they are driven more by risk than rush.

## **7. Conclusions**

This contribution introduces the concept of rush as a particular type of emotional and psychological state which may be experienced by intermediate and expert exponents carrying out adventure activities at the limits of their skill under near-ideal conditions. It traces the links and differences between the concept of rush, and a range of related concepts such as thrill, flow, peak experience, edgework, sensation seeking and serious leisure. It argues that enhanced opportunities for rush experiences are a major motivation for clients of commercial adventure tours which offer so-called risk recreation activities. It notes the apparent paradox whereby participants in high-risk recreational activities, which involve tour providers in major risk management procedures, state that risk and danger are not in fact significant personal motivations. It argues that this paradox has arisen because of the correlation and confusion between risk and rush. The same circumstances which provide rush also generate risks. The clients want the rush, not the risk, and they take steps to maximise rush and minimise risk. Significant risks remain unavoidable, but it is not the risks which provide the motivation.

The establishment of rush as a discrete concept generates a number of questions for future research. Using qualitative and linguistic analysis approaches, we can search and test for the concept of rush in the experiences of adventure tourists and the popular literature of adventure tourism and recreation. Using quantitative approaches, we can construct psychometric scales to measure its importance for different people. We can carry out focused multi-respondent analyses to confirm and improve the distinction between rush and risk. We can examine the role of rush in retail product purchasing decisions by commercial adventure tour clients, and in the design, operations and marketing of such products by adventure tour operators. And finally, stepping beyond the normal boundaries of tourism research, we could collaborate with physiologists to test for hormonal changes during rush experiences, as reported for skydiving by Anfilogoff, Hale, Natrass, Hammond, and Carter (1987) and by Lyng (1990), quoting work from a decade earlier. No doubt the day will come when electroencephalographic equipment is light and compact enough to be carried in a helmet and backpack.

In particular, future research on rush could involve the construction of survey instruments or interview techniques intended to elicit: to what degree participants in various activities at various levels of expertise may experience rush; to what degree it may or may not be related to their perceptions of risks and perhaps also of fear (Carnicelli-Filho et al., 2010; Holyfield & Fine, 1997); and to what degree it contributes to their motivations both to undertake the activity and to purchase adventure tours which offer it. Survey instruments such as that used by Funk and James (2001) and Beaton, Funk, and Alexandris (2009), to measure the degree of individual involvement in particular activities, could perhaps serve as models for comparable instruments related to rush. Funk and James (2001) proposed a “4A” scale for individual involvement in spectator sports, from awareness and attraction to attachment and allegiance. To include adventure participants at the skill level considered here, we should need to add a fifth “A”, namely addiction. If rush can be made measurable, it then becomes possible to study both the factors that may influence it, and the actions which it may influence. For example, the former might include age, gender, family background, prior experience, and various personality traits; whilst the latter might include motivations to

purchase holidays, responses to marketing campaigns, and behavioural decisions whilst involved in the activity concerned.

Recognising the role of rush does also have implications for the management of adventure tourism, but these are limited, for three reasons. 1. The practitioners of adventure tourism do already recognise the role of rush. It is the academic analysis which has been deficient. Indeed, one of the key roles of adventure tour guides is a kind of emotional choreography, designed to enhance rush for the clients. In situations of actual danger, guides aim to act calmly, quietly and quickly. At times of low risk, however, they talk up hazards ahead so as to increase anticipation, and teach clients the skills to navigate those hazards successfully. 2. Whilst rush is an important motivation, it is not the only one. Especially for tours aimed at less skilled participants, social interactions and social capital may be equally important (Table 1); and it is these high-volume low-skill tours which make up the bulk of the industry (Buckley, 2006, 2010a, 2010b). 3. Even if a client's purchases are motivated by rush rather than risk, the risks are still real. Accidents do still happen; and guides, operators and land and water management agencies still have to take steps to reduce actual risks.

From a physical perspective, rush experiences involve the use of a learned skill at the limits of individual ability - sometimes, slightly beyond the level which that individual had previously believed themselves capable of. They require complete focus and concentration, maximum balance and control, and minimum reaction times. Certainly, the concepts of flow, edgework and peak experience can be applied to such an experience. From the participants' perspective, however, all of these miss the central and most important aspect, which is the rush itself.

It is a regular theme in the popular literature of many adventure activities, repeated in academic analyses such as those of Allman et al. (2009) and emphasised strongly in the marketing of adventure tours and equipment, that only those who take part in the particular activity concerned can understand what it means. This contribution aims to show that contrary to these claims, there is considerable commonality in the experience referred to here as rush, across a wide range of adventure activities; that it is perfectly feasible for non-

practitioners as well as practitioners of such activities to comprehend this experience; and that the concept is useful in dispassionate analysis of human behaviour, including the purchase of commercial adventure tourism products.

## References

Allen-Collinson, J., & Hockey, J. (2011). Feeling the way: notes toward a haptic phenomenology of distance running and scuba diving. *International Review for the Sociology of Sport*, 46, 330-345.

Allman, T. L., Mittelstaedt, R. D., Martin, B., & Goldenberg, M. (2009). Exploring the motivations of BASE jumpers: extreme sport enthusiasts. *Journal of Sport & Tourism*, 14, 229-247.

Anderson, L. (2006). Analytic autoethnography. *Journal of Contemporary Ethnography*, 35, 373-395.

Anfilogoff, R., Hale, P. J., Natrass, M., Hammond, V. A., & Carter, J. C. (1987). Physiological response to parachute jumping. *British Medical Journal*, 295, 415.

Arnould, E. J., & Price, L. L. (1993). River magic: extraordinary experience and the extended service encounter. *The Journal of Consumer Research*, 20, 24-45.

Arnould, E. J., Price, L. L., & Otnes, C. (1999). Making magic consumption: a study of white-water river rafting. *Journal of Contemporary Ethnography*, 28, 33-68.

Bane, M. (1996). *Over the edge: A regular guy's odyssey in extreme sports*. New York: Macmillan.

Bartkus, V. O., & Davis, J. H. (Eds.). (2009). *Social capital: Reaching out, reaching in*. Cheltenham: Edward Elgar, (350 pp.).

Beaton, A. A., Funk, D. C., & Alexandris, K. (2009). Operationalizing a theory of participation in physically active leisure. *Journal of Leisure Research*, 41, 177-203.

Berger, I. E., & Greenspan, I. (2008). High (on) technology: producing tourist identities through technologized adventure. *Journal of Sport and Tourism*, 13, 89-114.

Billabong. (2011). <http://www.billabong.com/> Accessed 07.02.11.

Bratton, R., Kinnear, G., & Korolux, G. (1979). Why men climb mountains. *International Review for the Sociology of Sport*, 4, 23-36.

Breivik, G. (1996). Personality, sensation seeking and risk taking among Everest climbers. *International Journal of Sport Psychology*, 27, 308-320.

Brymer, E., & Oades, L. G. (2009). Extreme sports: a positive transformation in courage and humility. *Journal of Humanistic Psychology*, 49, 114-126.

Buckley, R. C. (2002a). Surf tourism and sustainable development in Indo-Pacific Islands. I. The industry and the islands. *Journal of Sustainable Tourism*, 10, 405-424.

Buckley, R. C. (2002b). Surf tourism and sustainable development in Indo-Pacific Islands. II. Recreational capacity management and case study. *Journal of Sustainable Tourism*, 10, 425-442.

Buckley, R. C. (2003). Adventure tourism and the clothing, fashion and entertainment industries. *Journal of Ecotourism*, 2, 126-134.

Buckley, R. C. (2006). *Adventure tourism*. Wallingford: CAB International.

Buckley, R. C. (2007). Adventure tourism products: price, duration, size, skill, remoteness. *Tourism Management*, 28, 1428-1433.

Buckley, R. C. (2009). Whitewater tourism. In B. Prideaux, & M. Cooper (Eds.), *River tourism* (pp. 181-196). Wallingford: CAB International.

Buckley, R. C. (2010a). *Adventure tourism management*. Oxford: Elsevier.

Buckley, R. C. (2010b). Communications in adventure tour products. *Annals of Tourism Research*, 37, 315-332.

Carnicelli-Filho, S., Schwartz, G. M., & Tahra, A. K. (2010). Fear and adventure tourism in Brazil. *Tourism Management*, 31, 953-956.

Cater, C., & Cloke, P. (2007). Bodies in action: the performativity of adventure tourism. *Anthropology Today*, 23(6), 13-16.

Cater, C. I. (2006). Playing with risk? Participant perceptions of risk and management implications in adventure tourism. *Tourism Management*, 27, 317-325.

Celsi, R., Rose, R., & Leigh, T. (1993). An exploration of high-risk leisure consumption through skydiving. *Journal of Consumer Research*, 29, 1-23.

Chang, H. (2008). *Autoethnography as method*. Walnut Creek, CA: Left Coast.

Cheron, E., & Ritchie, B. (1982). Leisure activities and perceived risk. *Journal of Leisure Research*, 14, 139-154.

Crompton, J. L. (1979). Motivations for pleasure vacations. *Annals of Tourism Research*, 6, 408-424.

Csikszentmihalyi, M., & Csikszentmihalyi, I. S. (1990). Adventure and the flow experience. In J. C. Miles, & S. Priest (Eds.), *Adventure education* (pp. 149-156). State College, PA: Venture.

Cunningham, M. (1999). *The hours*. London: Harper Collins.

Delle Fave, A., Bassi, M., & Massimini, F. (2003). Quality of experience and risk perception in high-altitude rock climbing. *Journal of Applied Sport Psychology*, 15, 82-98.

Dolnicar, S., & Fluker, M. (2003). Behavioural market segments among surf tourists: investigating past destination choice. *Journal of Sport Tourism*, 8, 186-196.

Eco, U. (1988). *Foucault's pendulum*. London: Pan.

Ellis, C. (2004). *The ethnographic I: A methodological novel about autoethnography*. Walnut Creek, CA: AltaMira.

Ewert, A. W. (1985). Why people climb: the relationship of participant motives and experience level to mountaineering. *Journal of Leisure Research*, 17, 241-250.

Ewert, A. W. (1993). Differences in the level of motive importance based on trip outcome, experience level and group type. *Journal of Leisure Research*, 25, 335-349.

Ewert, A. W. (1994). Playing the edge: motivation and risk taking in a high-altitude wildernesslike environment. *Environment and Behaviour*, 26, 3-24.

Ewert, A. W., & Hollenhorst, S. (1989). Testing the adventure model: empirical support for a model of risk recreation participation. *Journal of Leisure Research*, 21, 124-139.

Farmer, R. J. (1992). Surfing: motivations, values and culture. *Journal of Sport Behavior*, 15, 241-257.

Feher, P., Meyers, M. C., & Skelly, W. A. (1998). Psychological profile of rock climbers: state and trait attributes. *Journal of Sport Behavior*, 21, 167-180.

Fluker, M. R., & Turner, L. W. (2000). Needs, motivations, and expectations of a commercial

whitewater rafting experience. *Journal of Travel Research*, 38, 380-389.

Funk, D. C., & James, J. (2001). The psychological continuum model: a conceptual framework for understanding an individual's psychological connection to sport. *Sport Management Review*, 4, 119-150.

Gilbert, D., & Hudson, S. (2000). Tourism demand constraints: a skiing participation. *Annals of Tourism Research*, 27, 906-925.

Griffiths, R., Richards, W., Johnson, M., McCann, U., & Jesse, R. (2008). Mystical-type experiences occasioned by psilocybin mediate the attribution of personal meaning and spiritual significance 14 months later. *Journal of Psychopharmacology*, 22, 621-632.

Hales, R. (2006). Mountaineering. In R. C. Buckley (Ed.), *Adventure tourism* (pp. 260-285). Wallingford: CAB International.

Heo, J., Lee, Y., McCormick, B. P., & Pederson, P. M. (2010). Daily experience of serious leisure, flow and subjective well-being of older adults. *Leisure Studies*, 29(2), 207-225.

Heino, R. (2000). What is so punk about snowboarding? *Journal of Sport and Social Issues*, 24, 176-191.

Higgins, M. (30 July 2010). For some, taking a flying leap is worth it only if it's supersized. *The New York Times, Global Edition*, 10.

Hollenhorst, S., Schuett, M. A., Olson, D., & Chavez, D. J. (1995). An examination of the characteristics, preferences, and attitudes of mountain bike users of the national forests. *Journal of Park and Recreation Administration*, 13, 41-51.

Holyfield, L. (1999). Manufacturing adventure: the buying and selling of emotions. *Journal of Contemporary Ethnography*, 28, 3-32.

Holyfield, L., & Fine, G. A. (1997). Adventure as character work: the collective taming of fear. *Symbolic Interaction*, 20, 343-363.

Irwin, J. (1973). Surfing: the natural history of an urban scene. *Urban Life and Culture*, 2, 131-160.

Jackson, S. A., & Marsh, H. W. (1996). Development and validation of a scale to measure optimal experience: the flow state scale. *Journal of Sport and Exercise Psychology*, 18, 17-35.

Jonas, L. M. (1999). Making and facing danger: constructing strong character on the river. *Symbolic Interaction*, 22, 247-268.

Jones, C. D., Hollenhorst, S. J., Perna, F., & Selin, S. (2000). Validation of the flow theory in an on-site whitewater kayaking setting. *Journal of Leisure Research*, 32, 247-261.

Kane, M., & Zink, R. (2004). Package adventure tours: markers in serious leisure careers. *Leisure Studies*, 23, 329-345.

Kellehear, A. (1993). *The unobtrusive researcher: A guide to methods*. St Leonards: Allen and Unwin. (177 pp.).

Kiewa, J. (2001). Control over self and space in rock climbing. *Journal of Leisure Research*, 33, 363-382.

Klausner, X. Z. (1967). Sport parachuting. In R. Slovenko, & J. A. Knight (Eds.), *Motivations in play, games, and sports*. New York: Charles C. Thomas.

Krakauer, J. (1996). *Into the wild*. New York: Villard.

Laurendeau, J. (2006). "He didn't go in doing a skydive": sustaining the illusion of control in an edgework activity. *Sociological Perspectives*, 49(4), 583-605.

Lipscombe, N. (1999). The relevance of the peak experience to continued skydiving participation: a qualitative approach to assessing motivations. *Leisure Studies*, 18, 267-288.

Lipscombe, N. (2007). The risk management paradox for urban recreation and park managers: providing high risk recreation within a risk management context. *Annals of Leisure Research*, 10, 3-25.

Lyng, S. (1990). Edgework: a social psychological analysis of voluntary risk taking. *American Journal of Sociology*, 95, 851-856.

Lyng, S., & Snow, D. (1986). Vocabularies of motive and high-risk behaviour. The case of sky-diving. *Advances in Group Process*, 3, 157-179.

Maslow, A. H. (1977). *Religions, values and peak experience*. Harmondsworth: Penguin.

McGillivray, D., & Frew, M. (2007). Capturing adventure: trading experiences in the symbolic economy. *Annals of Leisure Research*, 10, 54-78.

McIntyre, N. (1992). Involvement in risk recreation: a comparison of objective and subjective measures of engagement. *Journal of Leisure Research*, 24, 64-71.

Mentawai Sanctuary. (2010). Preserving the stoke. <http://www.mentawai.com/> Accessed 18.11.09.

Midol, N., & Broyer, G. (1995). Toward an anthropological analysis of new sport cultures: the case of whiz sports in France. *Sociology of Sport Journal*, 12, 204-212.

Mitchell, R. (1983). *Mountain experience: The psychology and sociology of adventure*.

Chicago: University of Chicago Press.

Morgan, D. J. (2010). Adventure tourism activities in New Zealand: perceptions and management of client risk. *Tourism Recreation Research*, 25, 79-89.

Page, S. J., Bentley, T., & Walker, L. (2005). Scoping the nature and extent of adventure tourism operations in Scotland: how safe are they? *Tourism Management*, 26, 381-397.

Patterson, I., & Pan, R. (2007). The motivations of baby boomers to participate in adventure tourism and the implications for adventure tour providers. *Annals of Leisure Research*, 10, 26-53.

Pomfret, G. (2006). Mountaineering adventure tourists: a conceptual framework for research. *Tourism Management*, 27, 113-123.

Pomfret, G. (2011). Package mountaineer tourists holidaying in the French Alps: an evaluation of key influences encouraging their participation. *Tourism Management*, 32, 501-510.

Ralston, A. (2005). *Between a rock and a hard place*. New York: Pocket Books.

Richins, M. (1997). Measuring emotions in the consumption experience. *Journal of Consumer Research*, 24, 127-146.

Rossi, B., & Cereatti, L. (1993). The sensation seeking scale in mountain athletes as assessed by Zuckerman's sensation seeking scale. *International Journal of Sports Psychology*, 24, 417-431.

Ryan, C. (2005). Ethics in tourism research: objectivities and personal perspectives. In B. W. Ritchie, P. Burns, & C. Palmer (Eds.), *Tourism research methods* (pp. 9-20). Wallingford: CAB International.

Ryan, C., & Stewart, M. (2009). Eco-tourism and luxury - the case of Al Maha, Dubai. *Journal of Sustainable Tourism*, 17, 287-301.

Schrader, M. P., & Wann, D. L. (1999). High-risk recreation: the relationship between participant characteristics and degree of involvement. *Journal of Sport Behaviour*, 22, 426-441.

Sharpe, E. K. (2005). Going above and beyond: the emotional labor of adventure guides. *Journal of Leisure Research*, 37, 29-50.

Silverman, D. (Ed.). (2011). *Qualitative research* (3rd ed.). London: Sage.

Simpson, J. (1993). *This game of ghosts*. Seattle: Mountaineers.

Slanger, E., & Rudestam, E. (1997). Motivation and disinhibition in high risk sports: sensation seeking and self efficacy. *Journal of Research in Personality*, 31, 355-374.

Stebbins, R. (1982). Serious leisure: a conceptual statement. *Pacific Sociological Review*, 25, 251-272.

Stronza, A., & Durham, W. H. (Eds.). (2008). *Ecotourism and conservation in the Americas*. Wallingford: CAB International.

Swarbrooke, J., Beard, C., Leckie, S., & Pomfret, G. (2003). *Adventure tourism: The new frontier*. Oxford: Butterworth-Heinemann.

Thompson, H. S. (1971). *Fear and loathing in Las Vegas*. New York: Random House.

Tolich, M. (2010). A critique of current practice: ten foundational guidelines for autoethnographers. *Qualitative Health Research*, 20, 1599-1610.

Tribe, J. (2010). Tribes, territories and networks in the tourism academy. *Annals of Tourism Research*, 37, 7-33.

van Beek, S. (Summer 1998). The power of one. *The Explorers Journal*, 22-29.

van Dijk, P. A., Smith, L. D. G., & Cooper, B. K. (2011). Are you real? An evaluation of the relationship between emotional labour and visitor outcomes. *Tourism Management*, 32, 39-45.

Varley, P. (2006). Confecting adventure and playing with meaning: the adventure commodification continuum. *Journal of Sport and Tourism*, 11, 173-194.

Wahba, M. A., & Bridwell, L. G. (1976). Maslow reconsidered: a review of research on the need hierarchy theory. *Organizational Behavior & Human Performance*, 15, 212-240.

Wheaton, B. (2000). 'Just do it': consumption, commitment, and identity in the windsurfing subculture. *Sociology of Sport Journal*, 17, 254-274.

Williams, P., & Soutar, G. N. (2009). Value, satisfaction and behavioral intentions in an adventure tourism context. *Annals of Tourism Research*, 36, 413-438.

Wong, J.-Y., & Wang, C.-H. (2009). Emotional labor of the tour leaders: an exploratory study. *Tourism Management*, 30, 249-259.

Wu, G. H.-J., & Liang, R.-D. (2011). The relationship between white-water rafting experience formation and customer reactions: a flow theory perspective. *Tourism Management*, 32, 317-325.

Yerger, D. M. (2004-2005). High-risk recreation: the thrill that creates a statutory and judicial spectrum of response and drives the dichotomy in participant and provider liability. *Suffolk*

*University Law Review*, 38, 687-706.

Zuckerman, M. (1971). Dimensions of sensation seeking. *Journal of Consulting and Clinical Psychology*, 36, 45-52.

Zuckerman, M. (1979). *Sensation seeking: Beyond the optimal level of arousal*. Hillsdale, NJ: Erlbaum.

**Table 1: Motivations for Adventure Activities**

---

<b>Internal, performance of activity</b>	
Thrill	Adrenalin, excitement
Fear	Overcoming fear
Control	Maintain physical and mental control of one's body
Skills	Using expertise to perform very difficult tasks
Achieve	Overcoming challenges to reach difficult goals
Fitness	Activity simply as a way to keep physically fit
[Risk]	[Danger as a direct motivation]
<b>Internal/external, place in nature</b>	
Nature	Appreciation of beauty
Art	Perception of activity as artistic
Spirit	Activity as spiritual experience
<b>External, social position</b>	
Friends	Enjoyment in sharing an activity with others
Image	Enhancing how one is perceived by others
Escape	A change from routine of home or work
[Compete]	[Competition against others]

---

Note: for those items shown in square brackets [ ], some studies did identify these factors as motivations, but others specifically excluded them – that is, participants explicitly denied that they were motivated by risk or competition respectively. Categories are derived from the 50 studies cited in this Section.