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Towards an understanding of flow and other positive experience phenomena within outdoor and adventurous activities

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Towards an Understanding of Flow and Other Positive Experience Phenomena Within Outdoor and Adventurous Activities

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Abstract

In considering what draws people to become involved in adventurous activities, studies on flow suggest that people are motivated to participate because of the intrinsic feelings of enjoyment, well-being and personal competence that they experience. This paper explores the positive experience phenomena termed peak experience, peak performance and flow. Similar and distinctive characteristics are identified, and factors influencing the ability to experience such peak moments are considered. A state of flow, which appears to hold the most relevance for adventurous activities, is explored in greater detail and considered in the light of The Adventure Experience Paradigm. Csikszentmihalyi's flow models are outlined and examined with particular reference to perceived levels of challenge and skill. It is suggested that an insight into the nature and characteristics of such optimal experiences can contribute to our understanding of why adventurous activities are intrinsically motivating. Such an understanding can assist practitioners in enhancing the learning experiences and opportunities for development of each individual participant.

Introduction

When considering what draws some people to become involved in adventurous activities, Yaffey (1993:10) refers to special moments of 'pure perception, uncontaminated thought and freedom to Be' that provide intense feelings of aliveness and occur spontaneously as peak experiences. It is such peak moments experienced during outdoor and adventurous activities that this paper sets out to explore. There is much anecdotal evidence to suggest that peak experiences can lead to new interests and changes in attitudes, and there is a growing interest in the impact of such experiences in education (Cooper, 1996). 'Peak experience' is often used as an all-encompassing term to describe a significant positive experience. Over the past 20 years several positive experience phenomena have been considered within the literature; more recently within a sporting context. Outdoor and adventurous activities, because of their nature in encouraging (and often demanding) a high level of involvement, provide opportunities for significant positive experiences. As practitioners within this field, an insight into the nature and characteristics of such experiences can assist in developing understanding of why outdoor

and adventurous activities are intrinsically motivating. An understanding of such phenomena can also assist us in education to enhance the learning experiences and opportunities for development for each individual participant.

When considering the main positive experience phenomena explored in the literature, it is a state of 'flow' that appears to hold the most relevance for outdoor and adventurous activities in that it has been identified as being intrinsically motivating.

> The various elements of the flow experience are linked together and dependent on each other. By limiting the stimulus field, a flow activity allows people to concentrate their actions and ignore distractions. As a result they feel in potential control of the environment. Because the flow activity has clear non contradictory rules, people who perform in it can temporarily forget their identity and its problems. The result of all these conditions is that one finds the process intrinsically rewarding. (Csikszentmihalyi 1975: 48)

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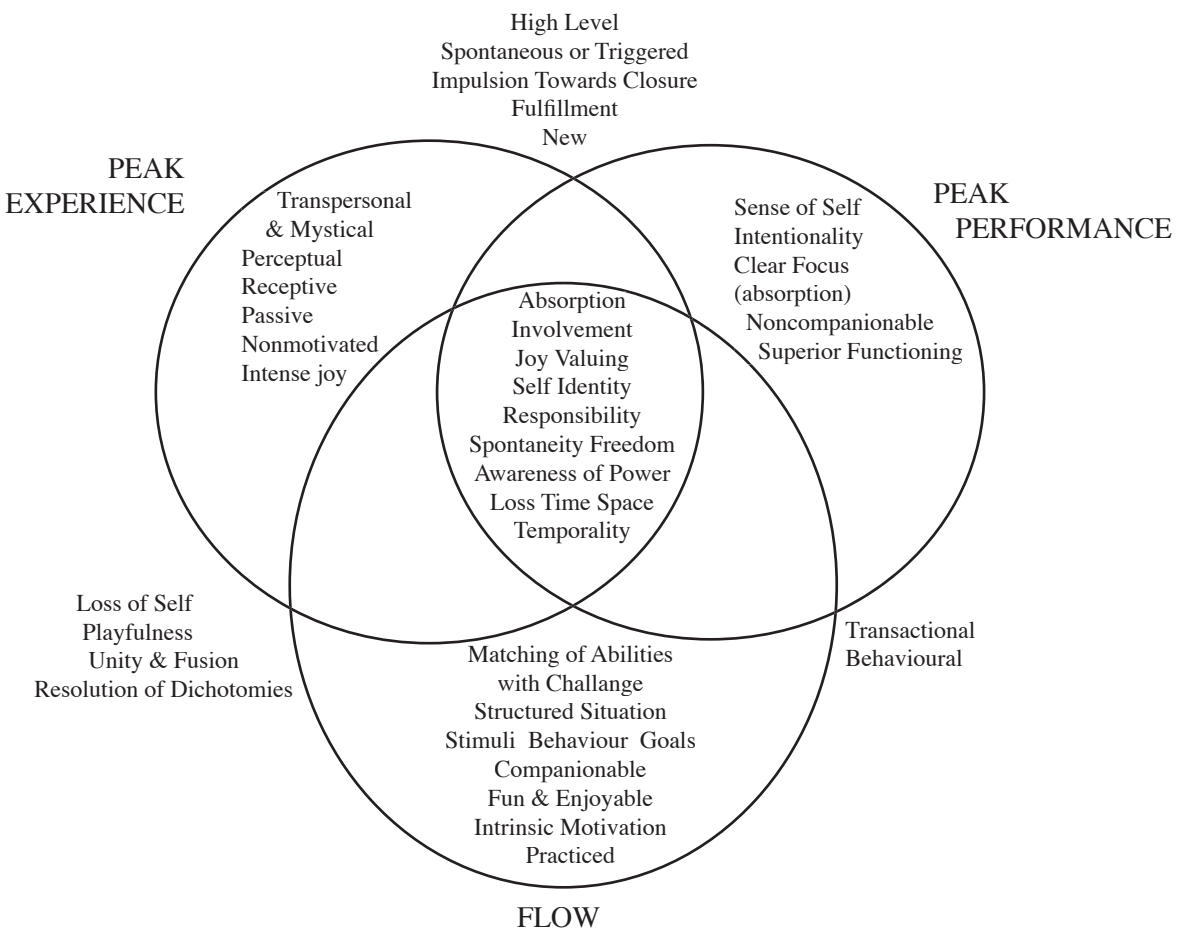
From early childhood, people are conditioned to respond to external cues, often in the form of rewards or punishments. However, Csikszentmihalyi (1975) notes that striving for material goods, or for power, prestige and esteem is largely a motivation that is learnt through socialisation and not a universal trait. Those taking for granted the importance of external incentives are likely to dismiss as irrelevant enjoyment of the task, or the extent to which it is meaningful or rewarding in itself. However, in spite of the acceptance of the value of extrinsic rewards by most members of society, some people choose to expend energy on activities that appear to contain rewards within themselves. Csikszentmihalyi (1975) examined people engaging in activities that could be categorised as play, games or creative; offering enjoyment but no obvious extrinsic rewards. He studied rock climbers (as well as chess masters, basketball players, dancers and many others) and found that enjoyable activities provide a common experience that he identified as a powerful motivating force in human behaviour, and called flow. Flow can be characterised by a satisfying, often exhilarating feeling of creative accomplishment and heightened functioning. Subsequently people have reported being able to look upon the world with heightened perception, and to generalise formal and affective components of the experience into everyday life (Macaloon and Csikszentmihalyi, 1983).

Although Csikszentmihalyi's research (1975) examined involvement in many different activities, subsequently flow, along with other positive experiences, has been identified as worthy of examination by sport psychologists. (Whilst the majority of research within this area applies to sport, it is mentioned here because it is considered relevant to participation and performance within outdoor and adventurous activities). Generally in sport there has been an emphasis on performance outcomes, but in order to increase understanding of athletes' experience, sport psychologists are beginning to focus on subjective states along with objective outcomes (Kimiecik and Stein, 1992). Mannell, Zuzanek and Larson (1988) note that the attainment of flow states is believed to enhance self-esteem and promote personal growth. This is supported by Kimiecik and Stein (1992) when they conclude that athletes who experience

flow are likely to gain more enjoyment and positive affective experiences than athletes not experiencing flow. Thus a greater understanding of the flow state can assist coaches, and leaders in helping athletes and participants in adventurous activities achieve this optimal level of experience. Whilst this will not necessarily enhance performance, flow has been found to be related to positive performance outcomes (Jackson, 1996) or 'peak performance'. According to Ravizza (1977), during moments of peak performance an athlete obtains expanded views of themselves as fully functioning individuals which suggests positive outcomes in addition to those related to achievement. In examining the phenomenon of flow with reference to sport, and more particularly outdoor and adventurous activities, it is important to consider other positive experiential phenomena that have been identified within relevant literature. In considering peak moments in sport, Privette (1983) and McInman and Grove (1991), in addition to flow, refer to peak experience and peak performance as models of optimal human experiencing. When considering characteristics of each, Privette (1983) identifies absorption, valuing, joy, spontaneity, a sense of power, and personal identity and involvement as being important attributes shared by all three [see Figure 1].

Figure 1. Comparison of Topologies of Peak Experience, Peak Performance and Flow (Adapted from Privette 1983)



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Peak Experience

Peak experience was first defined by Maslow (1971) as moments of highest happiness and fulfilment. Having concluded that psychology appeared to be based on the study of sick people, Maslow focused his attention on healthy people of which he considered there were a greater number. He found that these people tended to report having experienced moments of pure happiness when all weaknesses were left behind and they felt at one with the world. Initially Maslow believed peak experiences could have far-reaching beneficial consequences, but he subsequently considered that they could occur without any kind of long-lasting benefit. He also argued that a greater number of peak experiences tend to be reported by self-actualising[1], fully functioning individuals (Wilson, 1972). Peak experience was subsequently defined by Leach (1963:11) as being a highly valued experience, standing out due to its intensity of perception or sense of profound significance. In 1984 Ravizza, in a study of athletes, reported nine common characteristics of peak experience in sport including:

a) Loss of fear with no fear of failure;
b) A sensation of being totally absorbed in the activity with a narrow focus of attention;
c) Effortless performance;
d) A sensation of complete control;
e) A time-space disorientation (time usually seeming to slow down);
f) A perception of the universe being integrated and unified, as if in some moment of special insight;
g) A perception of the experience being unique, temporary and involuntary.

As previously identified, there appear to be several common characteristics of the positive experiential phenomena that have been classified as peak experience, peak performance and flow, such that it is not always easy to categorise a particular experience or event. Some of the characteristics identified by Ravizza in 1977 as peak experience were subsequently re-categorised by Privette (1983) and McInman and Grove (1991) as applying to flow or peak performance. There does seem to be some lack of consensus as to what level of physical activity or active involvement might be characteristic of peak experience. However, Privette (1983: 1363) concluded that 'a joyful event is exclusively peak experience when it does not specifically involve (superior) behaviour'. There appears to be agreement that a distinguishing feature of peak experience is a feeling of great joy or ecstasy not present to such an intensity in peak performance or flow.

Peak Performance

> Peak performance is a state of superior functioning that characterises optimal sport performances, resulting in personal bests and outstanding achievements. Peak performance has been defined as the prototype of superior use of human potential, often transcending prior standards of performance more fully than could be reasonably expected. (Jackson and Roberts, 1992: 156)

Peak performance need not necessarily relate to sporting activities and might therefore be creative expression through an art form, intellectual mastery of a problem or an incident of rich human relationship (Privette, 1983). However, it is peak performance within a sporting context that is considered here. Mental and physical conditions described as being characteristic of peak performance include feeling:

a) Relaxed;
b) Confident (without anxiety or fear);
c) Clearly focused in the present with action occurring automatically and effortlessly;
d) Narrow focus (with poor global awareness);
d) Highly energised;
e) In control (an awareness of power);
f) A sense of fulfilment;
g) Not companionable.

(See for example, Privette, 1981, 1983; Garfield & Bennett, 1984; Privette & Bundrick, 1987; Gould, Eckland & Jackson, 1992)

With reference to the final characteristic, Privette (1983) suggests that involvement by others might actually prevent the occurrence of peak performance, possibly by disrupting concentration. In considering characteristics unique to peak performance, Privette (1983) clarifies that an event is exclusively peak performance when accompanied by superior functioning and a high level of performance, but not intense joy.

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Flow

As previously identified, detailed analysis of individuals engaged in enjoyable, absorbing and intrinsically motivating activities (some of an athletic or physical nature) resulted in Czikszentmihalyi identifying an experience he termed flow. He suggested play (activities such as climbing have been termed 'deep play'), game and creative situations to be particularly amenable to creating flow experiences because of their nature and structure (Gould, Eckland & Jackson, 1992). Whilst sharing some similarities with peak experience and peak performance, flow is distinguishable from both of these and appears particularly significant when considering the area of outdoor and adventurous activities. Jackson (1996) notes that peak performance denotes a standard of accomplishment rather than a psychological state, although evidence has been found to suggest that flow underlies or is some sort of precursor to both peak performance and peak experience. In other words, being in flow can create a state where peak performance or peak experience can occur (Gould, Eckland & Jackson, 1992).

Csikszentmihalyi's study of flow over more than two decades has resulted in the assembly of nine defining characteristics (see for example, Csikszentmihalyi, 1990; Jackson, 1996; Jackson & Marsh, 1996) which are outlined in Table i. Support for the relevance of the characteristics of flow being divided into nine dimensions was found by Jackson (1996) when investigating athletes' descriptions of their experiences of flow.

Table i. ***Characteristics of the Flow State as Identified by Csikszentmihalyi (1990).***

Dimension of the Flow State	*Description of the Dimension*
Challenge-skill balance	Particularly significant within sport-related research; this refers to the balance between perceived ability and task demand and is depicted in Csikszentmihalyi's (1975) original model of the flow state.
Action-awareness merging	No awareness of self as separate from the actions being performed. Deep involvement leads to the activity becoming spontaneous.
Clear goals	A strong sense of what is to be done. Goals either set in advance or developed out of involvement in the activity are clearly defined.
Unambiguous feedback	Clear and immediate feedback concerning performance in relation to the goal(s) set.
Concentration on the task in hand	Total concentration on the task in hand with a narrowing of focus and the centring of attention on a limited stimulus field.
A sense of control	A sense of exercising control without actually trying to be in control (Jackson, 1996). No worry about a possible lack of control.
Loss of self-consciousness	Concern for the self disappears and the person becomes one with the activity (Jackson, 1996).
Transformation of time	A loss of time awareness or time disorientation. A person can lose track of time altogether and time can appear to 'stand still'.
Autotelic experience	An intrinsically rewarding experience appearing to need no rewards or goals external to itself and involves a deep sense of enjoyment.

The first characteristic of challenge-skill balance bears some similarities to Priest's Adventure Experience Paradigm (1990) [see Figure 3] and will be examined later in this paper. The suggestion that flow will only occur when there is a matching of perceived ability and task demands will be subsequently questioned. The merging of action and awareness does not allow for intrusive thoughts relating to, for example, performance or safety, and is only possible to maintain for short periods of time after which a person tends to perceive the activity from the 'outside' and flow is interrupted. Climbers interviewed by Csikszentmihalyi (1975:90) reported that belaying allowed a break in concentration and offered 'regular opportunities to elaborate and solidify the experience through reflection'. A sense of control and a resultant

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absence of worry is present in flow situations where objective dangers are real (for example in mountain or free climbing). The identification of flow as an autotelic experience appears to be given particular significance in studies on flow (see for example, McInman & Grove, 1991; Jackson, 1996) and is highlighted in the words of a climber interviewed during Csikszentmihalyi's research (1975: 47):

> The justification of climbing is climbing...you don't conquer anything except things in yourself...recognising that you are in flow. The purpose of the flow is to keep on flowing...There is no possible reason for climbing except climbing itself; it is a self-communication.

Flow Experiences in Outdoor and Adventurous Activities

Studies on flow suggest that people are motivated to participate in outdoor and adventurous activities because of the intrinsic feelings of enjoyment, well-being and personal competence that they experience (Priest & Gass, 1997). Robertson (1986) considers the notion of natural sports such as rock climbing being intrinsically motivated as paramount to the classical leisure concept in which activity is performed for its own sake or as its own end. As noted by Macaloon and Csikszentmihalyi (1983), rock climbing (as an example of an outdoor and adventurous activity) is an outstanding example of a particular class of flow activity because it involves physical danger and no discernible external reward. It is through involvement in such activities that individuals can learn about themselves and develop in ways that have implications for their experience of everyday life.

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Rock climbing was classified by Jeremy Bentham, the eighteenth-century British philosopher, as 'deep-play': 'play in which the stakes are so high that it is....irrational for men (sic) to engage in it at all' (Geertz, 1973: 432). In sharing with many other outdoor and adventurous activities a perception of danger for the participant, rock climbing requires total involvement in order to overcome the challenge of the situation. It could be argued that if the optimal balance[2] between perceived competence and task demands is achieved in an activity such as rock climbing, many of the characteristics of flow are likely to be facilitated if the person is to successfully complete the task. As identified by Csikszentmihalyi (1975: 81) 'the physical and mental requirements involved in staying on the rock act as a screen for the stimuli of ordinary life - a screen maintained by the intense and focused concentration. The addition of risk (or perceived risk) to the intellectually and physically engaging aspects of the activity compel the person to attend to the immediate situation, with any lapse of concentration being seen as potentially disastrous. Physical danger provides clear and immediate feedback for each action; 'there is a keen awareness of what is 'good' and what is 'bad' and there is not the struggle to do incompatible or conflicting actions, as is common in everyday life' (Robertson, 1986: 448). In spite of the fact that danger is accepted as being a real and crucial aspect of the activity, in flow, feelings of control and competence predominate because the risk is highly calculated and the danger managed due to the individual's matching[2] level of competence. Within the context of flow, Macaloon and Csikszentmihalyi (1983) note the objective correlates of the feelings of control to be experience, training, precaution, anticipation, protection, judgement, responsibility and evaluation. In order to achieve a state of flow, they consider that a certain level of experience, skill and conditioning appropriate to the level of challenge

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must be attained. The need for a certain level of competence in order to accurately assess the risk and experience feelings of control is an issue open to question. Csikszentmihalyi's (1975) original flow model [see Figure 2] suggests that flow could be experienced when both the perceived challenge and matching skills were at a low level, but McInman and Grove (1991) suggest that those with little experience are unlikely to experience a peak moment (e.g. flow). Csikszentmihalyi's earlier research (1975) did lead him to conclude that beginners do not experience flow possibly because an activity that is too demanding is likely to result in too high a level of anxiety, or because conscious thought is necessary at a novice level preventing detachment. Based on extensive research Csikszentmihalyi and Csikszentmihalyi refined this flow model (1988: 262), noting that the original model provides a description of the way in which flow changes with the 'increased complexification' of challenges and skills over time (for any one person). The reformulated model [see Figure 2] proposes that 'flow results from experience contexts characterised by a match between challenge and skills only when both challenges and skills exceed the level that is typical for the day to day experiences of the individual' (Ellis, Voelkl & Morris, 1994: 338). It can be seen from the model that only experiences where both perceived levels of challenge and skill exceed an individual's 'mean' are coded as flow. It is suggested that a balance between low levels of perceived skill and challenge can lead to feelings of 'apathy'. Where perceived skill is high but the challenge is seen to be of a low level, anxiety results, and situations where the converse exists are classified as boredom[3] experiences. Having reformulated the flow model to contain four channels, Csikszentmihalyi (1988) suggested that researchers consider the use of additional channels and subsequently an eight channel model has been used (Csikszentmihalyi & Nakamura, 1989) [see Figure 2]. This model has been questioned by Ellis, Voelkl and Morris (1994) who identify a need for further theoretical development, although Csikszentmihalyi's (1988) assertion that it does not make sense for flow to be experienced when challenge and skill are below what is customary for that person is a valid one.

It has already been suggested that flow occurs when there is a balance between perceived competence and perceived challenges of the situation. Jackson and Roberts (1992:157) identify a person's perception of the challenges and skills rather than the objective nature of either of these to be a critical aspect of the flow situation and conclude 'a perception that one has the necessary ability for the task is more likely to result in a flow-producing situation... perception of own ability and the subjective meaning of the task are therefore critical to flow'. As a person becomes more experienced within a certain activity they are able to assess their own competence and the challenge of the situation more accurately which could offer a further explanation of why it is unlikely for a novice to experience flow. In an attempt to explain participants' experience of adventure, Priest (1990) developed the Adventure Experience Paradigm (1985): a model based on the variables of risk and competence [see Figure 3]. Risk can be defined as the potential to lose something of value and competence as the capability of individuals to deal effectively with the demands of the situation (Priest & Gass, 1997). In this model the challenge is created by the interaction of competence and risk to overcome uncertainty. Five conditions of challenge are possible with a balance of risk and competence being termed 'peak adventure'. Priest (1990) proposed 'peak adventure' as a goal for

participants in outdoor and adventurous activities as it is this condition that offers opportunities for the experience of flow and personal growth. However, as in Csikszentmihalyi's flow model, it is an individual's perceptions that are significant (rather than any objective assessment of risk or competence) and it is with experience that a participant is likely to correctly perceive a situation and thus increase the likelihood of experiencing peak adventure.

Mitchell (1983) noted the lack of important conditions or antecedents in Csikszentmihalyi's theory on the experience of flow and as a result he suggested several important conditions that facilitate the flow experience. These antecedents include freedom of choice and uncertainty of outcome and have implications for leaders and participants within outdoor and adventurous activities if peak adventure experiences and consequently flow are to be attained. Mitchell suggests that an activity must be voluntary if it is to provide opportunities for experiencing flow. This means that individuals should be able to choose their level of involvement with no one being coerced into any situation. Witt and Ellis (1984: 60) note that 'the most universally agreed upon condition which is characteristic of optimal leisure functioning is the concept of freedom' with an individual feeling 'free to' pursue leisure in the manner of their choice. They also identify perceived control as one aspect of 'freedom to' where an individual believes that they have the ability to control the process and outcome of an experience through their own efforts and abilities. The importance of an internal locus of control has been identified elsewhere in literature on outdoor and adventurous activities as an antecedent to flow and personal growth and development (Priest, 1993). Csikszentmihalyi and Csikszentmihalyi (1990: 153) consider that as modern life becomes more and more complex increasing numbers of people 'will strive to find situations in which they feel that what they do is of their own choice and under their own control'.

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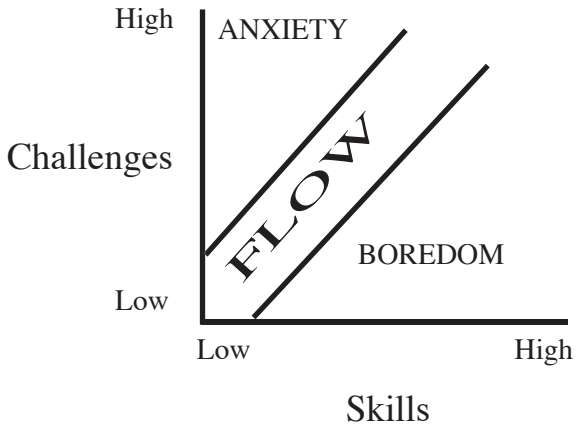
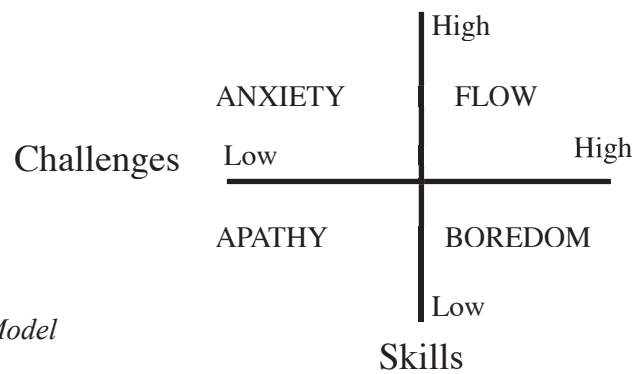
An activity such as rock climbing provides an unlimited range of action challenges, the level of which can be selected in advance to best match one's level of skill. Climbs are usually graded enabling a climber to select a climb at the limit of their potential, or offering the possibility of identifying new goals (such as focusing on form and technique rather that achievement). In addition there are less predictable factors such as environmental conditions, mood and others performance that can always provide unexpected challenges. Thus climbing offers perpetual novelty. Macaloon and Csikszentmihalyi (1983: 367) note that control over the choice of challenge levels is extremely important but 'at the same time a degree of uncertainty is always implicit and necessary to the process...."The uncertainty factor is the flow factor...you can't have a certain flow". This is an interesting and significant point because at times within the literature (see for example, Carlisle, 1988; Ellis, Voelkl & Morris, 1994) the flow state appears to be reduced to a skill-challenge equation with the suggestion that flow is experienced when opportunities for action are in balance with a person's skills. Some interpretations of Priest's (1990) Adventure Experience Paradigm misinterpret peak adventure as being a state where perceived competence and risk are perfectly matched. However, this is not the case. In discussing the appeal of adventure Csikszentmihalyi and Csikszentmihalyi (1990) refer to the human desire for novelty, discovery and uncertainty, and the enjoyment gained from exploring the unknown and confronting the unexpected. Thus peak adventure involves a

Figure 2. Original and Reformulated Flow Models (Taken from Ellis, Voelkl and Morris, 1994).

Original Flow Model



Four Channel (Reformulated) Flow Model



Eight Channel (Reformulated) Flow Model

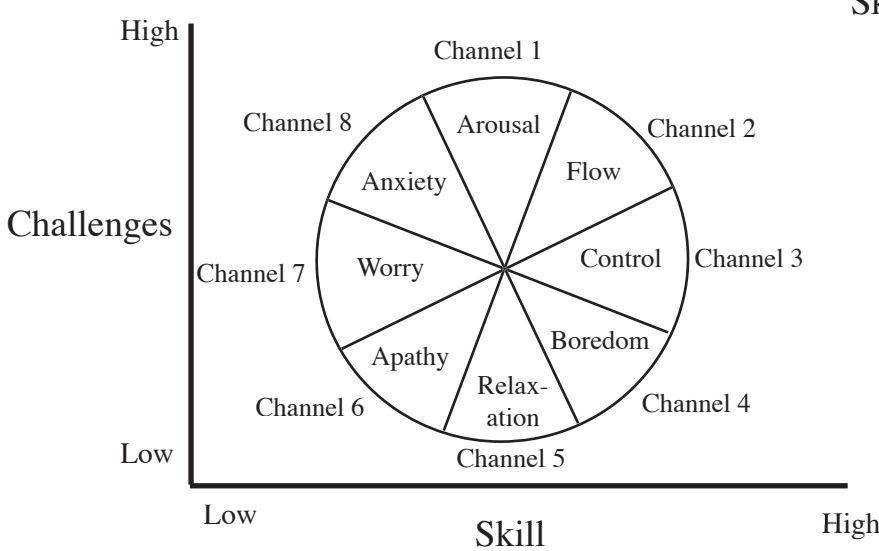


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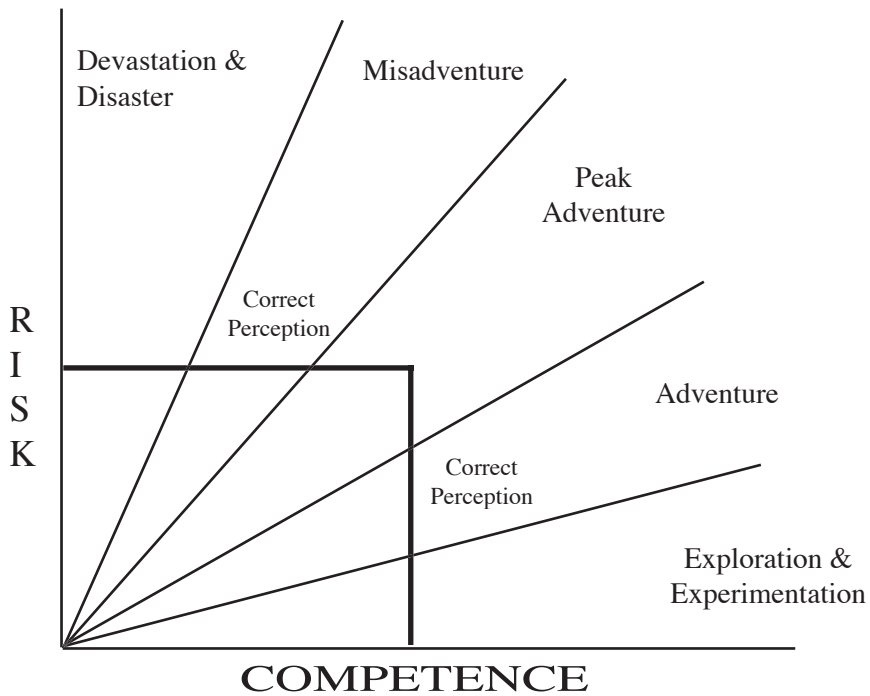
Figure 3. The Adventure Experience Paradigm (Priest & Martin 1985).



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degree of uncertainty and, as applied to Priest and Martin's model, some dissonance between perceived competence and risk. In other words there is some uncertainty as to whether the individual can overcome the challenge of the task. It is this uncertainty that makes overcoming the challenge as a result of personal competence such a rewarding experience. As stated by Mitchell (1983: 147): "If in climbing we feel and become more than was possible before, let us not forget whom to praise. Whatever we find in the mountains, we took there in the first place."

Conclusion

In considering why people take part in outdoor and adventurous activities such as climbing, Mitchell (1983) notes, 'The key concept, the desirable condition, the sought-after goal of climbing is the social-psychological condition of flow'. Thus what is being sought is an experience corresponding to a 'match' between person and environment (Csikszentmihalyi & Csikszentmihalyi, 1990). According to Priest and Baillie (1987), good adventure education consists of the ability of each participant (competence) to accurately evaluate and confront the environmental dangers being pursued (risk). By carefully 'matching' competence and risk in progressively complex situations, experiences characteristic of the flow state can be produced. Csikszentmihalyi and Csikszentmihalyi (1990: 154) suggest that 'those who are able to find

enjoyment in adventure activities made on purpose to provide autotelic experiences, are more likely to begin to find flow in other areas of life as well'. It is important to note that adventure is individual and where facilitated for others need to be differentiated for each participant. Macaloon and Csikszentmihalyi (1983: 382) take this a stage further when they state that 'to provide intrinsic rewards an activity must be finely calibrated to a person's skills - including his (sic) physical, intellectual, emotional and social abilities'. Thus the same challenges are unlikely to produce flow in people of very different skills, and not everybody will enjoy the physical challenge provided by many outdoor and adventurous activities.

This paper has provided an overview of positive experiential phenomena with particular consideration given to flow and its relevance within outdoor and adventurous activities. Research has revealed that, in contrast to the confusion, anxiety and dissatisfaction often experienced as part of everyday life, outdoor and adventurous activities provide experiences that are intrinsically engrossing. Demands are clearly identified, feedback is unambiguous, and the outcome is dependant upon the skills and abilities of the participant. Mitchell (1983: ix) notes that such experiences provide relief from 'the 'artificiality' of public standards and restores to us a private and seemingly more 'real' basis of evaluation'. Csikszentmihalyi (1975: 161) refers to climbing as an example of 'deep play' and notes that whilst it has not been proved, it is generally agreed that play 'provides mental and physical stimulation, results in feelings of competence (and) satisfies psychic needs not met by working'. Clearly in order to increase understanding of involvement in such activities, as well as to make flow more accessible to participants, there is a need for further research within the area of outdoor and adventurous activities.

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Notes

1. Wilson (1972) outlines Maslow's self-actualising person as relatively spontaneous in behaviour, which is marked by simplicity and naturalness and by lack of artificiality or straining for effect. Such people often resist enculturation and maintain a certain inner detachment; they tend to be centred on problems external to themselves rather than ego-centred. Such people are always creative and have a capacity to enjoy things again and again as if new. However, not all self-actualising people report peak experiences and such experiences are not a guaranteed means of attaining self-actualisation.
2. Terms such as 'balance' and 'matching' when used with reference to challenge, risk and skill give distorted view of a situation conducive to flow. Although used in much of the literature, it is considered (and will be discussed further on in this paper) that some dissonance or uncertainty is necessary for flow to be experienced.
3. In a study conducted by Ellis, Morris and Voelkl (1994: 353) they note high levels of enjoyment and positivity of affect found in the low challenge-high skill, or 'boredom' channel. 'The data from the present study suggest that the term 'boredom' may not capture the essence of the low challenge-high skill experiences, since these experiences are perceived to be positive by the subjects'. They consider that this category should be renamed if the findings are replicated.

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