SUSTAINED

MOTIVATION

A study of the sustained motivation of individuals with respect to continued, long term participation in leisure activities: the case of rockclimbing.

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ABSTRACT

This study examines the sustained motivation in a leisure activity, rockclimbing. Rockclimbing was selected as the case study as anecdotal evidence indicated that contemporary explanations for long term participation were inadequate.

A literature review examining all of the possible relevant motivations and models of participation is presented. This is followed by a discussion of the research methodology employed. This utilised the technique of triangulation through the research tools of focus groups, survey questionnaires, participant observation and in-depth interviews. The data was analysed using a modified grounded theory approach.

The conclusions drawn are that for sustained motivation for rockclimbing there is an internalisation process of the rewards of participation. This internalisation is explained through the concept of a 'learned response' which itself encompasses both psychological and physiological aspects. The psychological aspects are explained by a modification to Reversal Theory while the physiological aspects are explained through the use of 'motor engrams'.

The conclusion suggests that this is not a case specific result and that it mat have general application to the development of sustained motivation in many areas.

CONTENTS

Plate 1 - **The Climbing Environment**

1. BACKGROUND TO THE STUDY

A climber does not climb to reach the top,
he reaches the top to define his climb.

- Csikzentmihalyi and Kleiber (1991)

1.1 Introduction

What motivates individuals to participate in a foot race from Sydney to Melbourne; swim the cold waters of the English Channel; sail single handed around the world; or manhaul a sledge across a polar ice cap, when they have little chance of winning - or even finishing? Further, what motivates people to continue to participate in such activities over a long time span when most others would query "why do the activity at all?" Many of these activities involve physical discomfort, time spent in an often hostile outdoor environment and, in many cases, a degree of personal risk.

There is a considerable volume of literature which has developed over recent years, which has attempted to examine the motivations of participants in outdoor leisure pursuits involving a degree of risk. These studies have investigated activities such as: skiing (Mills: 1985); rockclimbing (McIntyre: 1989); mountaineering (Ewert: 1989); skydiving (Lyng: 1990); and associated general outdoor recreation activities (eg Nisbett: 1968; Meier: 1980; Allen: 1980b; Miles: 1980; Ewert and Hollenhorst: 1989).

The majority of the subjects of these studies had been involved with the activity for a relatively short time. Moreover, the study samples were usually drawn from young, well educated, American college students, with the notable exception of the study by McIntyre (1988). Even in the study of skydiving by Lyng (1990), the participants had only been involved in the activity for a maximum of five years. In a study of rockclimbers, conducted by McIntyre (1989), the average time of participation had been only three years and this included one subject with a participation time of 20 years. Few studies have attempted to follow the participation of those who have been involved for many years. One exception is Bryant (1977) who traced the experiences of trout fishermen as they became more involved with their chosen activity over the years.

The author, as an active rockclimber over the past thirty years, saw that arguments and theories put forward to explain motivation for participation in high risk activities, did not seem to match personal experience or those of experienced rockclimbers

Anecdotal and personal observations seem to suggest that long term participation leads to a distinctive personal philosophy toward the participation and commitment of the experienced climber. This appears to be very distinct from the approach of the "novice" climber. Anecdotal evidence suggests that existing theories are more appropriate to the "novice" climber, than the "committed" or long term climber. McIntyre (1990), for example, found relaxation to be very low on the table of relative importance of factors as to why individuals climbed. Discussions with long term rockclimbers appeared to present very different motivational profiles to those proposed by McIntyre.

Other researchers studying risk argue that the risk is *the* prime element in participation (Lyng: 1990; Allen: 1980). This would also seem to be true in the earlier stages of participation. However, discussions with climbers revealed that, with increasing experience and length of time of participation, risk taking, both apparent and real, becomes less important - although it is still an element.

Csikszentmihalyi (1975), in his theory of 'Flow', predicts that, when a participant is experiencing a task that is below his/her level of skill, then s/he should become bored with the situation. While this may be the case with short term participants who are still in the developing stages of experiencing a new activity and building up their skill and technique, the more experienced climber seems to gain a degree of satisfaction from what may otherwise be interpreted as being "under tasked". This is arguably contrary to the idea of flow. However, both the experienced climber and the novice will become anxious, as predicted by the Flow Theory, when the task exceeds the skill level available. The more experienced the climber the more probable it is that s/he will avoid such a situation. As will be discussed more fully in this thesis, such models as Flow appear to omit some aspects of observed behaviour.

It is such apparent anomalies and inconsistencies that have led to the desire to examine more closely the experience of long term participation in leisure activities in an attempt to better understand the processes and motivation involved. Although this study used rockclimbing as a case study, the findings have the potential to be broadened into a more general concept of leisure motivation.

1.2 Statement of the Research Problem

Specifically, this research seeks to examine the motivations of "experienced" rockclimbers, those climbers who have engaged in rockclimbing for many years, and to provide an understanding of the extent and nature of the evolution of these motivations.

As discussed previously, there appears to be some discrepancy between motivations and theories of participation currently proposed in the literature and what is actually observed in practice. The aim, then, is to gather and examine data in an attempt to explain this apparent discrepancy or offer new insights or theoretical understandings for the observed results.

Throughout I have proceeded with the simplicity and ideals of Occam's Razor:

pluritas non est ponenda sine nessitate
- William of Occam (1349)

1.3 Concepts

This section serves to: establish some of the concepts frequently referred to within the text in order to ensure that a common language and set of ideas is being used; and to familiarise readers with the terminology and concepts commonly used in rockclimbing. This then ensures that a common baseline has been established from which to extend into new ideas.

Motivation

Weiner (1992, p 17) describes motivation as "the study of the determinants of thought and action - it addresses why behaviour is initialised, persists, and stops, as well as what choices are made". M^{c}Clelland (1985, p 590) defines a motive as "a recurrent concern for a goal state based on a natural incentive - a concern that energises, orients, and selects behaviour".

Motives for activities can be of many different kinds. They can range from some perceived benefit or outcome for the individual or for a more immediate intrinsic reward. Benefits, by their nature, are seen as more of a long term reward (Cohen, 1991) and can as such be regarded as part of long term motivation.

Leisure

According to Csikszentmihalyi and Kleiber (1991) "when an activity is freely chosen, and when it is pursued for its own sake, the activity should be considered leisure" (p 93). This concept of Csikszentmihalyi and Kleiber also implies that leisure can have an element of self-actualisation. Self actualisation implies that individuals are using their freedom "to explore the limits of their potentialities and to expand the range of their mental, physical and social skills" (p 91). Alternatively, the chosen form of leisure could avoid any form of challenge, mental or physical.

For many, leisure may in fact become the dominant force in their life around which all other activities are constructed. For example, Roberts (1970) argued that "for many people, leisure has now become such a central and dominant part of their lives that it is their behaviour and attitudes toward work that are determined by their leisure rather than the other way around" (p 25).

Deci and Ryan (1985) examined the roles of intrinsic motivation and self-determination in human behaviour and how these related to leisure activities. They argued that "sports [leisure activities] provide an excellent opportunity to be self-determining, to get competence feedback, and to have social involvements" (p

313). Leisure activities "provide an opportunity to play; they are an area for one's intrinsic motivation; and they represent a possibility for recovering the self-esteem that is lost in the work times of many individuals" (p 314).

Iso-Ahola (1989) stated that "there are only two fundamental dimensions to leisure motivation: seeking personal/interpersonal intrinsic rewards; and escaping personal/interpersonal environments through leisure experiences. Leisure motivation is not a matter of either seeking or escaping, but of both" (p 269). Iso-Ahola concluded that "those who have a high degree of specialisation in and commitment to a single leisure activity have been found to look for intrinsic rewards from their involvement" (p 269).

While there is a significant body of literature philosophising on the definitions and requirements of individuals for leisure, the particular aspects concerning self actualisation and intrinsic motivation, are particularly relevant to this study.

Risk

Lyng (1990), in a study of high risk behaviour, stated that "some people place a higher value on the *experience* of risk taking than they do on achieving the final ends of the risky undertaking" (p 852) thus indicating that risk can be a source of motivation for an activity. Risk can be either real or apparent, but never-the-less, a risk as far as the participant is concerned. Risk can manifest itself in many forms from being a desire to be "turned on" and "highly aroused" (see Apter 1992, p 86) or simply to perhaps impress or shock friends and relatives.

Risk may not simply involve an element of physical danger but may also involve a degree of mental or psychological danger to the individual. This is the sense of “adventure” as discussed by Simmel (see Frisby: 1989) where an individual challenges themselves in a situation involving the possibility of social or psychological failure.

One of the most spectacular physical risk taking activity in recent times is the phenomenon of "Bungy Jumping". To all outward appearances this activity involves a large degree of personal risk but the notable lack of reports of actual physical injury would make it appear that perhaps it is mostly an apparent risk. It is important, therefore, to distinguish *apparent risk* from *real risk*.

Real risk is where there is an actual possibility of physical or psychological injury to a participant. The degree of risk at which the individual is placed is usually under the control of the participant in the first instance and is a function of knowledge

experience and individual psychology. While there is a real possibility that the participant may be physically injured, the degree of exposure to the risk is controllable through direct manipulation of the parameters involved.

Apparent risk is the situation where the possibility of physical or psychological injury is minimal. Apparent risk usually occurs in ‘safe’ situations. An example is the Roller Coaster ride. Here there is a situation in which riders feel exposed to a very real and positive danger whereas real risk is minimal. The thrill of the ride comes from the apparent exposure to danger.

Long term commitment and active participation

The relationship between the length of time of participation and experience is very difficult to define. Length of time of participation and the accumulation of experience is not a constant across all individuals. Just as the frequency of participation varies between individuals so too does the growth of experience. To make any sort of judgement concerning a climber's level of experience many other factors need to be considered than merely the length of time since their first climb. These other factors typically include frequency of participation, climbing areas visited and the type of climbing activity undertaken. Appropriate questions must be posed during the research and a subjective judgement made by the researcher. Subjects may need to be selected depending on their experience and commitment to climbing.

More importantly in this study is the determination of an appropriate standard of 'long term participation'. Again this is not a simple matter as it is a subjective judgement involving the degree of participation and by implication, experience, in conjunction with the length of time of participation. These combine to give a concept of 'active participation'.

Climbing Terminology

In order to give an understanding of the process of rockclimbing it will be instructive here to follow the procedure involved during a rockclimb.

Two climbers arrive at the base of the cliff and decide on the route they will climb up the face. The 'belayer' sets up a 'belay'. This is a procedure where the second climber becomes securely attached to a fixed point (a large tree, solid rock, etc). The first climber or 'leader' then commences to climb up the rock face trailing a rope behind. This rope is securely attached to the leader's waist. As the leader moves up the cliff, the rope is attached to the rock by various methods at points

termed 'running belays', or simply 'runners'. The trailing rope runs freely through the runners.

The belayer acts so as to allow the flow of the rope through the runners so that under normal conditions the rope will flow and not impede the progress of the leader. During a fall, however, the belayer will rapidly control the flow of the rope so as to arrest the fall as quickly as possible to avoid any injury to the leader. The last, and uppermost, runner acts as a pulley preventing the leader from becoming injured by minimising the length of the fall. In this way the runner acts so as to protect the leader (and in some instances the second).

After the leader has climbed a reasonable distance, termed a 'pitch', a position will be found at which to set up a belay. From this safe position the leader may take in the rope as the second person climbs thus safeguarding the second's progress. As the 'second' climbs s/he will remove the runners for use further up the cliff. This sequence is repeated until the top of the cliff is reached. Sometimes the same climber may 'lead' all of the pitches and sometimes the two climbers may alternate leads.

Some climbs may be as short as one pitch while others may have up to thirty or forty pitches. Pitches may vary in length from ten to 50 metres. The length of a pitch will usually depend of the characteristics of the rock face and the availability of belay points.

Rockclimbing can adopt many forms. The following are the main practices and terminology used later in the document:-

Bouldering: This is where relatively small rock outcrops are climbed, primarily for practice but in many cases bouldering is undertaken for its own, intrinsic enjoyment. Usually there is no rope used to safeguard the climber although sometimes a second climber may "spot" the active climber so that if there is a fall s/he can help prevent serious injury.

Top Roping: In this case a rope is lowered from the top of the cliff without the leader first climbing the route. In this way climbers may practice climb with minimal risk because of the protection from above.

Soloing: This is climbing a cliff or rock face usually without the benefit of a rope or any form of protection. The climber must be very confident in his or her abilities as there are serious consequences in the event of a fall.

Leading: The first climber to ascend the rock face with no protection from a rope above is the termed the leader. The leader trails a rope from behind.

Seconding: In the normal course of events the leader climbs the rock face first and then the "second" who climbs next has a rope for protection from above. There may be more than one "second" on a rope as any climber who climbs subsequent to the leader is, in the jargon, "seconding".

New Areas: This reference is when climbers go to a climbing area where they have not climbed before. It is venturing into unfamiliar territory and in this way testing new limits of experience.

New Routes: Occurs when climbers are in the process of actually climbing somewhere on a rock face where no one else has actually climbed before. New routes may be physically some distance apart or very close together.

Adventure Climb and *Sport Climb:* These are recent terms developed to differentiate between two distinct types of climbers. Adventure climbers prefer to climb using their own initiative in remote areas. Sport climbers are those who climb mainly for the physical act itself and do so in either gyms or on crags that are easily accessible and have excellent safety.

Exposure: Refers to a combination of height above the ground and the extent to which one feels psychologically 'exposed' on a rock face.

Rockclimbing may develop further into alpinism and mountaineering which is undertaken in the larger mountain ranges of the world. All of the forms of climbing are recognised as legitimate activities in themselves and an individual may choose to participate in only one or as many as is felt necessary. They are all part of the "games climbers play" (Tejada-Flores: 1967, p 23).

As can be seen there is more than simply "moving over the rock" in rockclimbing. Skills must also be acquired in rope work, placing runners (protection), route finding, belaying, self rescue if things go wrong, and a myriad of other skills.

For the purposes of this study the prime concern is with the form of rockclimbing described in detail above where there are usually at least two people climbing, one at a time, using a rope for protection.

Climbing Clubs and Organisational Structure

While rockclimbers may be members of climbing clubs or semi-formal organisations, they usually go climbing in very small groups or pairs. Serious rockclimbing is not conducive to large, noisy groups. It tends to be more of a private activity with socialising following at more suitable venues. This does not imply that rockclimbing is not a social activity or that some climbers are not gregarious, but rather that climbing is an activity that is based around a functioning group of two, three or perhaps four people.

The typical way for climbers to come into the activity was from bushwalking. This was usually via a bushwalking club or through the Scouting organisation. It was seen as an extension of bushwalking and a beginning to mountaineering. In recent years, however, many new climbers are coming from school, where they may have had a climbing program as part of extra curricula activities, through friends or family members who climb or through climbing gyms. Many rockclimbers still arrive at climbing through this traditional path, however, more seem to come directly to rockclimbing. This was indicated through comments made by climbers responding to this research and through perusal of the membership records of the Sydney Rockclimbing Club.

Climbing gyms are a relatively new phenomena involving "artificial" climbing walls made with pre-cast, bolt on holds and offering a safe environment in which to "climb". Climbers of the old school would argue that this is not the true essence of rockclimbing. One must be on the cliffs to experience what rockclimbing is about. Climbing gyms are a commercial activity and are part of the current trend toward the "commodification" of rockclimbing.
Traditionally the majority of climbers have tended to commence their climbing careers in their late teens to early twenties. Not many of those who start appear to continue with climbing for more than a few years. As life style changes occur perhaps they tend to find other activities more to their liking and life style.

1.4 Thesis Structure

The thesis is structured so as to allow the flow of ideas from the conception and definition of the research problem through to proposed theoretical explanation(s) of observed results and conclusions. The six chapters are as follows

1. Background: the current chapter, sets the research in perspective and defines some terminology that may be either unfamiliar to the reader or

requires a presentation of the concept as understood for the purposes of this research.

2. Literature Review: examines recent and current literature on motivation for leisure and presents existing models for participation that utilise the current understanding of motivation.

3. Methods: presents, explains and justifies the research methods utilised for the study and how these methods were implemented.

4. Results: presents the results that were obtained from the empirical research. The results are presented together with some discussion in order to aid understanding of how some of the conclusions evolved. This chapter shows the progression of the study and the rationale for the conclusions presented in the Synthesis chapter.

5. Synthesis: here the results are more closely examined and brought together in a synthesis of ideas. A development of some new theory is presented to better explain the observed motivations.

6. Conclusion: briefly summarises and reviews the Synthesis and research findings. Suggestions are also made as to how the conclusions may be generalised into the broader leisure field.

2. LITERATURE REVIEW OF MOTIVATION AND PARTICIPATION

2.1 Introduction

The aim of the literature review is to present and critically examine significant aspects of past and current research that have application to the research topic. Issues arising from the literature will then be used as tools for the analysis of results drawn out in the research process.

There is a significant volume of literature that can be drawn on in relation to the subject of motivation. In order to limit its extent, the review has been centred on those areas with particular relevance to rockclimbing. However, they are discussed in a generalised way and not necessarily specific to rockclimbing. This is then followed by a review of numerous models of participation developed by various researchers in relation to participation in outdoor activities.

Motivation, Leisure and Enculturation

Motivation can be viewed as simply the desire to participate. Wankle and Berger (1991) concluded that "sport participation can result in a number of benefits ... [including] ... personal enjoyment, personal growth, social harmony, and social change" (p 135). Parker (1983) extensively studied the relationship between leisure and work and the benefits of leisure, both real and philosophical. In some occupations Parker identified a clear demarcation, or 'opposition pattern', between work and leisure. For example in coal mining or trawler fishing, where the work is to some degree alienating. For other occupations Parker argued that there may be an 'extension pattern' where work extends into leisure in the form of attending conferences, reading professional literature or talking shop with colleagues. Between the two there is the 'complementary pattern' where work and leisure are simply regarded as different spheres of life with no particular interrelationship.
It is rare to find any activity which holds the attention of observers or the interest of participants or creates true devotees in a short time span. For an activity to be understood, learnt and appreciated, a significant ‘learning curve’ must be followed and the ‘culture' of the activity inculcated into the experience of the individual. As Becker (1953) illustrated in his study on "Becoming a Marijuana User" there is a learned response to be discovered before "enjoyment is introduced by the favourable definition of the experience that one acquires from others" (p 241). Thus, there is a learned response that must be ‘acquired’ before the activity is appreciated for itself.

A lack of understanding of the specific culture also causes a difficulty in the perception of the activity by outsiders or those not directly involved with the activity. This lack of understanding by the broader community may lead to a classification as a ‘fringe' activity and the society may then question underlying motivations. This can create a sense of marginalisation in the participants. (Stebbins: 1979, Donnelley: 1981a)

When an activity is played, watched or followed by a large portion of the population the activity becomes part of the ‘popular culture’. Examples are activities such as football, golf or cricket. By being part of the popular culture the values of the activity become part of society’s values and thus the values of the activity become absorbed into the norms of the culture. This is the process described as "legitimisation” through which an activity passes as it becomes part of popular culture (see Rojek; 1985, p 16).

This process of legitimisation has important implications. For example: a serious injury to a player in a football match is seen by society as ‘bad luck' while an injured rockclimber who needs rescue and hospitalisation is seen as one whose activities need to be controlled and who should exhibit more social responsibility. This is an example of one activity, football, which has been socially legitimised through a general acceptance of the motives and culture of the game, while another activity, rockclimbing, has been ‘marginalised' through a lack of knowledge, understanding and acceptance. Part of this acceptance, through the legitimizing process, is the use of socially accepted words and descriptors for justification of an activity or behaviour. For example we use the terms ‘football heros’ and ‘tennis champions’, which are very powerful verbal descriptors indicating that these are people to be emulated.

There are some activities that for the majority of society the question arises ‘why would anyone want to do that?’, rockclimbing is sometimes one of those activities. Just as society questions a speleologist as to why they would want to go into caves - usually dark, wet, uncomfortably small spaces - so a similar question is asked of rockclimbers with exposure to heights and the possibility of falling. Society, with a general respect for high, dangerous places, automatically asks why would an individual apparently wish to risk life and limb in order to go rockclimbing? (Lester: 1980, Donnelly: 1981a, Apter: 1992)

There is a plethora of anecdotal reasons that have been proposed as to why individuals wish to climb. Perhaps the most well known is that attributed to George Leigh Mallory who, when asked why he wanted to climb Mount Everest, replied

"because it is there"[1]. Perhaps he was being whimsical, perhaps not. External observers have argued that participants are those "who actively seek experiences that involve a high potential for personal injury or death" (Lyng: 1990, p 851).

For any activity to be undertaken by an individual there needs to be some form of personal motivation (Iso-Ahola: 1989, Csikszentmihalyi: 1992). This motivation can be either extrinsic or intrinsic in nature. Extrinsic motivation is external (to the individual) in nature. It can be in the form of praise from a peer group for excellence in performance or payment from an employer for work related tasks. Intrinsic motivations arise internally to the individual. They exist where the activity is undertaken for its own sake and sufficient reward is received through the act of participation itself (Csikszentmihalyi, 1975).

Motivation is a function of the individual and also a function of the stage in an individual's life cycle. With this in mind, before proceeding with a review of the appropriate literature on motivation, it is instructive to briefly examine the relationship between leisure and the life cycle.

2.2 Leisure and the Life Cycle

As individuals progress through their lives they experience different "stages"; thus, as a corollary, the activities they undertake, or desire, might also be expected to change (Levinson: 1978; Rapaport and Rapaport: 1975). These changes can take place for a number of reasons: physical changes in the body, such as growing older and losing fitness; social changes, such as moving away from the parents' home, marriage and family responsibilities; and varying responsibilities and functions with respect to career and work, such as relocation to an area where there are no longer the physical conditions available for the activity.

Rapaport and Rapaport (1975) were two of the earliest and most influential researchers to investigate the importance of the family life cycle in relation to leisure activities. Rapaport and Rapaport examined the relationship that family and work played in reference to the role and identity characteristics of leisure activities. They reflected that there is a certain continuity over the life span and that present activities are reflected at any instant by the current stage in the life cycle. Changes in role and identity characteristics can in turn be related to changes in the life cycle.

[1] A quotation attributed to the famous British mountaineer George Leigh Mallory in reply to a woman reporter who asked "But why do you want to climb Mount Everest, Mr Mallory?" This reply has become part of

Kleiber and Kelly (1980) examined the activities of individuals and the fluctuation and constraints on leisure over the life cycle. They state that the process of socialisation of an individual includes leisure experiences and also note that this includes children's leisure and play (p 91). Thus from an early age, leisure activities are an important part of socialisation. This socialisation further develops over the life cycle.

Leisure is presented in the adolescent phase as being an important part of the process of socialisation since play and leisure are "learned behaviour supported by certain conditions" (Kleiber and Kelly: 1980, p 94). Many activities of adolescence are characterised by the opportunities they offer for establishing sexual contacts, building self-image, confirming sexual-identity and establishing peer group social positions and contacts (Kleiber and Kelly: 1980).

When moving into the period of young adulthood, as outlined by Levinson (1978), the concentration tends to be on leisure activities that are "intrinsically satisfying" (Kleiber and Kelly: 1980, p 114). Relationships with other adults are developed and enjoyed and strong bonds form and are reinforced through leisure. These usually continue through courtship and the early phase of marriage, after which the arrival of children has an enormous influence on leisure patterns. This is particularly the case for women (Hedges, 1986). Hedges noted that approximately 23% of males compared to 39% of females cited the arrival of children as the reason for ceasing a leisure activity. At this stage of life leisure activities tend to become more strongly family oriented and a withdrawal from most outside activities is experienced (p 33).

Withdrawal from participation in an activity, according to Boothby, Tungatt and Townsend (1981), is associated with two main changes. Firstly, changes in physical ability and secondly, changes in the relationship between the individual and his/her 'activity environment'. The activity environment consists of:

a) the activity itself and its dimensions;
b) the organisational structure within which the activity takes place;
c) the social network of the activity; and
d) the individuals economic and social constraints.

All of these, to some extent, impinge on or have particular relevance to, the existing position in the individual's life cycle.

Boothby, Tungatt and Townsend concluded that the major reason for the cessation of participation was the loss or diminution of intrinsic interest in the activity. This

correlates with the conclusion of Iso-Ahola (1989) that "those who have a high degree of specialisation in, and commitment to, a single leisure activity have been found to look for intrinsic rewards from their involvement" (p 269).

As life progresses into 'middle-age', in most cases when children have grown up and are less dependent on parents, a return to former leisure activities may be attempted. This can, however, be confounded by physical ageing. Kleiber and Kelly (1980) noted that there are "clear social prescriptions for what a forty-five-year old can and cannot do and still retain a sense of 'maturity'" (p 120). This phenomenon of 'acting-your-age' is lessening in importance with the passage of the 'baby-boomers' into middle age, as they endeavour to retain their individuality, self-actualisation and quality of life (Marans and Mohai: 1991). At this stage of the life cycle it should be noted that "at any time, leisure would seem to be a social space for innovation and experimentation with new role identities as well as for the recovery and redefining of old ones with minimal risk to economic or familial roles" (Kelly: 1983, p 195).

Retirement and ageing means diminished family responsibilities and a return to significant free time. Restrictions are found with respect to physical capabilities but in old age, as in the middle age years, "few older people show a tendency to acquire completely new forms of leisure. Rather they change the pattern of leisure behaviour within their existing leisure repertoire" (Iso-Ahola: 1980, p 171). This is possibly a very important stage at which “substitutability” (Christensen and Yoesting: 1977) can become very effective and help make up for any reduced physical capabilities.

Overall it would be expected, from the work of Iso-Ahola (1980, pp 138 - 147) that entry into a physically demanding activity will be at an early life stage and, if such a physical activity has not been learnt at a crucial period in the life cycle, then it will probably not be learned in later years. Rather the leisure pattern, if the activity is continued, will fluctuate according to family, social and occupation related variables.

To summarise, in leisure patterns over the life cycle "marked discontinuities would be expected as the leisure career [of an individual] is worked out in the context of family, school, work and community institutions" (Kleiber and Kelly: 1980, p 127).

To follow on from this discussion of enculturation, leisure and the life cycle, it is appropriate to examine the literature on motivation and motivational attitudes and how it relates to rockclimbing. A wide range of motives will be presented and

discussed to show how there are many diverse motives operating and hence influencing an individual's choice of a leisure activity. It is reasonable to expect these motives to evolve with time and experience such that the motives for commencing an activity may be quite different from those that characterise continued participation.

2.3 Motivation

In a survey of leisure providers, Howatt, Crilley, Rodgers, Earle, Methven and Suter (1992), determined that the main benefits sought by clients from leisure providers were simply enjoyment, personal development, improved health and relaxation. As will be shown through the following literature review, there are a plethora of motivational incentives that can entice individuals to undertake their specific leisure activity.

These motivational incentives range over many areas and include: the formation and maintenance of an identy and self-concept; the benefits derived from health and spiritual development; learning; the desire for adventure and the taking of risks with the accompanying sense of excitement; and the results of commitment and possible marginalisation. Other aspects of motivation also include how much can the rewards from one activity substitute for the rewards of another?, and how does the perceived reward vary with the degree of commitment to that activity?

Finally, how are these motivations expressed in the climbing literature? A brief look is taken at a selection of the climbing literature to see how climbing authors have expressed their motivations and how these relate to the academic literature.

Identity and Self Concept

Haggard and Williams (1991) examined the self-identity enhancing benefits of leisure activities and reached the conclusion that individuals "strive to create identities for themselves" through leisure (p 112). Most individuals seek to build their self image in a positive manner. "Leisure activities, primarily because they are unconstrained" are "particularly good vehicles for identity affirmation" (p 112). Self affirmation is not analogous to self-indulgence. It is rather a form of individualism where an individual is striving to separate the ‘me’ from the ‘not-me’.

This is not popular culture's ‘me’ generation but an integration of a philosophy of self within society at large.

According to Haggard and Williams positive self-affirmation is exemplified in modern society by an individual who presents values and a life style that society regard as beneficial to both the individual and the society as a whole. Negative self affirmation is seen in those individuals who present an aggressive anti-social image to society and act in ways to cause harm or inconvenience to others (Haggard and Williams: 1991, p 112).

Kelly (1987) thinks of leisure as a necessary part of the socialisation process, allowing individuals to take control of part of their lives and give it their personalised direction. In leisure, individuals can imprint their own personalised philosophy on a distinctive part of their life. Kelly sees leisure as a creative process and every leisure experience as a new creation. He then interprets leisure as a "decision, an act as well as a state", a creation that is a "product of decision and action" (p 49).

This form of analysis is built on the contemporary philosophy of existentialism in which play is seen as the purest form of self-presentation in which the actor becomes absorbed in the activity. The focus is on the action rather than on the subjects and objects of the activity.

This concept follows directly from the ideas of Simmel (1955) who saw the process of socialisation arising from social interactions and argued that the "purest form of competitive struggle is above all not offensive and defensive" but where the energy is directed toward the activity itself (p 57). This allows individuals to concentrate on the activity and the expression and self-actualisation of themselves through that activity, thus developing their own self image. As individuals gain more expertise in the activity they become acknowledged by their peer group as experts and this gives them a certain degree of power in the sense that power is defined by Foucault (1983). Rojek (1985), in an analysis of the significance and power of leisure, expresses the opinion that "Foucault's work gives a clear statement of the positive character of power" and that "power is everywhere" (p 157). In the long term, when an individual gains knowledge and status within an activity, this gives them a degree of power in relation to novices and in turn this power is a motivating force for continuing the activity. It is not so much a power over others but a sense of personal power and personal control.

Rojek’s interpretation of this acquisition of "power" is that it acts as a positive reinforcement to the development of the individual’s self identity. It should be

stressed that this is not a negative or controlling power but rather a position of power developed through a recognition of the individual's experience and expertise gained through time spent at the activity. It is the power gained by 'expert' knowledge.

An important and integral part of self identity is the concept of 'image'. Meyers (1984) describes how the advertising industry sets out to design a product for a particular market niche. The advertisers create an 'image' and then show how particular individuals can fit that image through a process of association - because an individual uses that particular product then they are that sort of person and hence project a particular image. The 'Marlboro Man' is a classic example of an advertising image.

This image need not simply consist of external appearances. An individual's self-image is very important. A poor perception of one's self will result in poor expectations and poor performance. A positive perception will raise one's expectations and the result is a better performance (Goddard and Neuman: 1993, p 72). Self-image will affect one's performance.

In the same way that commercial advertising creates an image of the consumer in relation to a particular brand or participant in a popular activity, so too there is a particular image of a rockclimber. To a large extent this image is a combination of inputs from the user and from commercial advertising in the popular climbing press. It is directly related to the "commodification" of rockclimbing (see Wearing and Wearing: 1992).

In the early 1950s the image of the rockclimber was primarily generated from European literature in the form of novels and instruction books. It was one of a male who wore hobnail boots, knee length socks, climbing breeches that just went over the knees (similar to the plus fours worn for golf) and a woollen or flannel shirt topped off with a woollen balaclava (also possibly smoking a pipe). Today the image is generated by photo advertising. It is one of specialised rockclimbing shoes; brightly designed athletic tights; a chalk bag that holds gymnast's chalk (to keep the hands dry and provide more friction with the rock); and a climbing singlet or alternatively no shirt at all. This image is still established by climbing literature, however, it now also comes from the advertising in popular climbing literature, including magazines. Images are created for both males and females and are not significantly different in type.

As a consequence of this image production by advertisers, there is a desire on the part of consumers to conform to the image and to be a part of the culture

associated with the image (Meyers, 1984). So just as the ageing executive is motivated to buy a red sports car, play squash and join a gym in order to create a specific image, so too can a potential rockclimber be motivated through the image produced for the activity.

Coupled directly with an individual's "external" image is the psychological notion of self identity or concept of "the self". Klapp (1969) in examining the search for identity in modern society, discussed the notion that "modern society ... fails to give a person an adequate conception of himself [sic] through a lack of identifying ritual" (p 33). He argued that this leads to a situation where the individual has no indication of their "place" in society because they have not undergone any of the "rites of passage" that society traditionally used to offer in order to show acceptance and approval of the individual. These rites of passage were very common in older societies particularly in relation to religious beliefs. Primitive societies used initiation rites, which positioned the individual in the society. Klapp concluded that in modern society these rites are not so definite and in some instances are almost lacking. Thus in order to find one's identity many different avenues may be adopted and one such avenue may possibly be leisure.

One of the avenues explored by Klapp is sport or fun. Climbing was included as one of his specific examples. For Klapp,

> *... most daring and thrilling sports provide at least three important payoffs to identity: (1) intense encounter with reality; (2) discovery, proof, transcendence of self; and (3) an audience before whom to shine, not the least of which is a circle of devoted worshippers.* (Klapp: 1969, p 187)

Klapp also quotes the well known mountaineer Lord Hunt, leader of the first team to successfully scale Mount Everest in 1953, who said:-

> *Life is at its best when risked ... Mysterious impulses which cause men [sic] to peer into the unknown ... Like all profound experiences it is a paradox: both challenge and escape. There is certainly an element of escapism in most climbers. I climb partly to get away, for a time, from the life of the city and some values of contemporary living. But there is the reality even in the escape. You climb to discover things about yourself. To be on your own, to be with yourself, facing yourself in situations of stress and danger ... This is the ... compulsion towards self-discovery. Once you've tasted it you forever feel the urge to see where your limit lies.* (Lord Hunt, quoted by Klapp: 1969, p 186)

“One’s self concept is for the most part socially determined” (Weiner et al: 1977, p 442). The self concept or image that an individual has of themselves is derived from experiences and from interpretation of those experiences in relation to the social values of the individual’s peer group. Hence the motivation for undertaking certain activities can be the result of a desire to develop or enhance a specific self-concept

Thus, through an activity such as climbing, meaning can be given to the individual along with purpose and an identity that was previously lacking. Recognition of achievements and abilities by a peer group along with a place in the group has been identified in the literature as having a strong influence in the search for identity.

Health

In activities that involve some physical action there is considered to be a general health benefit (Paffenburger, Hyde and Dow: 1991). There are numerous studies published in academic literature and the popular press on the health benefits of reasonable physical exercise (see Doherty: 1974, Egger: 1979, Cooper: 1985, Paffenburger, Hyde and Dow: 1991, Maguire: 1995).

In their review of the literature, Paffenburger, Hyde and Dow found that habitual physical activity has beneficial effects in the areas of: resting heart rate; blood pressure; hypertension; blood glucose; fat body mass; osteoporosis; muscle tone; depression and anxiety; arthritis; and coronary heart disease. Verification for these conclusions has come from numerous epidemiological studies (Paffenburger, Hyde and Dow: 1991, pp 50 - 51). Significantly, Paffenburger, Hyde and Dow emphasise that the health benefits of physical activity are not primarily directed at longevity but rather at the quality of life that is maintained through 'physical fitness'.

Cooper (1986) cites an abundance of scientific evidence of how a well run and co-ordinated exercise program can increase an individual’s quality of life and reduce coronary risk factors. Noakes (1991) also conducted an extensive study on the health benefits of exercise to the individual and concluded that “the use of regular exercise for maintaining personal health will increase” as individuals become more and more aware of the benefits to them personally and to society in general (p 710).

Hence, the desire to gain an increase in the quality of life may motivate an individual to either undertake a new activity or continue with an existing activity that involves some form of physical exercise.

Spiritual

The spiritual benefits of leisure participation and leisure settings have been extensively reviewed by McDonald and Schreyer (1991). The definition of the term spiritual is taken in its broadest sense to mean "an individual's attempt to understand her/his 'place in the universe'. McDonald and Schreyer suggest that, the spiritual experience must encompass both the act and the setting itself (p 179). It is very difficult to clearly define an individual's spirituality. McDonald and Schreyer concluded that while "interpretations of the meaning of spirituality differ, there is no question that it represents a significant element of life that has practical implications for the individual and cultural development" (p 180).

The understood notion that spirituality exists and is indeed a motivating influence even in today's sceptical, western "civilised" mind needs to be addressed. Mcdonald and Schreyer argue that "spiritual experiences" play an important role in the "creation of a transcendental state" and this in turn lends credence to the importance of the socio-psychological area of spirituality (p 183). Individuals feel a sense of bonding with their peer group through such spiritual experiences where the mind has encouraged the body to persevere, particularly in areas where great physical and/or mental stress is experienced (McDonald and Schreyer: 1991, p 183). Examples here include marathon running and mountaineering. This sense of bonding or community is sometimes acknowledged in the outdoor adventure pursuits as the "wilderness experience". McDonald and Schreyer conclude that the spiritual benefit is one of the "universal human experiences" (p 191).

Robinson (1969) discussed the concept of a climber as a "visionary", extending the original conception by the climber George Mallory (1914) of the climber as an artist. Mallory saw climbing as a step above other sports and attempted to interpret this position in terms of the spiritual aspects of an artist. According to Mallory, the climber creates the climb. Robinson (1969) extended this argument to include both the original act of the creation of a climb, the aesthetic appreciation of a climb and the act of climbing itself. Robinson sees the climber ...

> ... *not* [as a] *visionary in the usual sense of idle and unrealisable dreaming, of building castles in the air, but rather in seeing the objects and actions of ordinary experience with greater intensity, penetrating them further, seeing their marvels and mysteries, their*

forms, moods and motions ... being a visionary in this sense involves nothing supernatural or otherworldly; it amounts to bringing fresh vision to the familiar things of the world (Robinson: 1969, p 6).

The spiritual experience can become so strong that it develops into a "cult" experience. Klapp (1969) developed this argument of the "cultic tendency in play" (p 186) through the examination of many activities ranging from karate enthusiasts, surfers, parachute jumpers, jazz fans, hot-rod enthusiasts and classical guitarists. The participants', "devotion goes beyond mere amusement, even beyond professionalism, to a kind of zealous piety" (p 186). He found this to be particularly true of activities that involved thrills and risk.

In a direct connection to rockclimbing, Ament (1992), in his introduction to the biography of the influential United States climber Royal Robbins states, "I have tried to make a study of Royal's spiritual evolution, as well as his development as a climber, and as a writer, business man, husband, and father" (p I). The book's title, *Spirit of the Age*, reflects the importance attached to the spiritual aspect of climbing by the author. Indeed, on reading many contemporary climbing works such as Harding (1975), Gardiner (1990) or Bridwell (1992) one is left with the strong feeling that there is much more to the activity of climbing than just the physical movement over rock.

John Gill, an American climber who did much to develop the art of bouldering, expressed his feelings of the spirituality of the activity in these words:-

...by engaging in this demanding and uncompromising activity I was filling a spiritual void in my life while advancing standards centimetre by centimetre. The purity of the sport from any commercial taint, its relative isolation, its benign character, its natural environment, its emphasis on personal development - all these gave bouldering a canonical significance. My friends and I were Quixote (sic) *knights in search of an elusive grail: the perfect boulder problem.* (Sherman: 1994, p xviii)

Learning

In recent years the use of what are conventionally regarded as leisure activities to teach broad educational principles, for example team work, has become somewhat fashionable. This occurs where specific knowledge learnt in connection with a leisure activity is developed and generalised to cover a broader aspect of life or knowledge.

This is particularly true in the management training industry. Management training has embraced particular outdoor activities, normally envisaged as recreational in nature, and utilised these activities to develop aspects of management training such as team work, co-operation and skill sharing. This is learning through the use of leisure activities.

Roggenbuck, Loomis and Dagostino (1991) have developed an integrative model of leisure learning and found that when potential learners are together in a leisure activity "they bring along particular personality styles of learning and motivation as well as expectations about the experience and the setting" (p 197). They cite examples where awareness of environmental sensitivity and citizenship were improved in a group in which individuals of various ethnic backgrounds were obliged to work together on a specific environmental problem. This had the general result that the individuals became more environmentally aware, and more tolerant and understanding of different ethnic backgrounds.

The educationalist Colin Mortlock (1984) has described how he has successfully used outdoor leisure activities to assist in the education of young people in the United Kingdom. In Mortlock's approach the emphasis is placed on adventurous activities in the outdoor environment such as canoeing, hill walking and rockclimbing. By learning to enjoy these activities young people develop self reliance and acceptance that if they wish to succeed they need to work regularly and hard.

Mortlock's philosophy for choosing these adventurous, outdoor activities was set to counterbalance what he felt at the time was too much emphasis on the pursuit of purely academic skills. Mortlock concluded that "my experiences have led me to believe that the adventurous and self-reliant journey in the natural environment, can provide [an individual] with an opportunity to discover himself (sic)" (Mortlock: 1984, p 19) ... and ... "I suspect that almost anyone who is involved teaching adventure activities to young people, subconsciously and instinctively knows that what he or she is doing has significant value beyond that of learning skills" (p 17).

Adventure

Initially, it should be pointed out that the concept of 'adventure' varies from the concept of 'risk'. However, there are some areas that overlap in the sense of the uncertainty of outcome: both physical and mental.

Adventure is not a motive for many leisure activities but certainly for some 'risk' activities, such as rockclimbing, there is a definite element of adventure. A definition of an adventure is "a hazardous enterprise or undertaking of uncertain outcome" (*Macquarie Dictionary*: 1985). Alternatively, there is the more general concept of "the adventure experience" as discussed by Ewert (1989, p 1). Ewert's interpretation sees the hazards and uncertainties controlled in a fairly strict manner by those in charge of the activities. It is not until novices have graduated to being responsible for their own activities that the responsibility of the hazards and outcomes falls on their shoulders. At this point the real adventure is brought into their activity. This is where apparent risks become real risks.

However, adventure may be thought of in a more subtle way as suggested by Simmel (see Frisby: 1989) where an adventure is taken to be any situation, social, mental or physical, that extends the individual's sphere of experience, beyond their normal bounds. It is in effect extending their psychological "comfort zone" to regions not attained before (Harris and Harris, 1995). Hence for one individual what may be an adventure could be quite a common experience for another.

> *Adventure has the gesture of the conqueror, the quick seizure of opportunity, regardless of whether the portion we carve out is harmonious or disharmonious with us, with the world, or with the relation between us and the world. On the other hand, however, in the adventure we abandon ourselves to the world with fewer defences and reserves than in any other relation.* (Simmel quoted in Frisby:1989, p 88)

Lynch (1993) examined the "need for adventure" in climbers and theorised that from generation to generation ideas develop and change with respect to climbing and the climbing experience (p 50). She concluded that there was a generational change in the concept of adventure between successive generations of climbers. The concept of a climbing adventure for one generation was rarely the same for the succeeding generation. This is similar to the way in which the acceptance of popular or 'rock' music may vary from generation to generation. Such changes in concepts may arise through different attitudes to environmental impact; the availability of new and improved climbing equipment; changes in climbing techniques; or an emphasis on different aspects of the activity. In some circumstances this generational change in the concept of adventure could result in a conflict of interests.

When examining motives the concept of adventure will vary from person to person and must be interpreted on an individual basis.

Risk in Leisure

Many leisure activities are seen to be associated with some degree of predominantly physical risk. For many individuals the fact that there is, or could be risk associated with an activity, acts as an attractive force. Youth, in particular, can interpret the facing of risk and personal danger as one of the "rites of passage" (Levinson, Darrow, Klein, Levinson and McKee, 1978) and a mark of movement into adulthood. The propensity for taking risks will vary within the family unit. One salient observation, particularly relevant to rockclimbing, is that "children with older siblings are more likely than first born or only children to take risks and engage in sports, especially dangerous ones" (p 96). Nisbett (1968) cited data gathered by Torrance in the 1950s which "indicated that in a situation involving considerable physical danger ... first borns were less effective than later borns" (p 351). This can be interpreted as meaning that first borns take less risks than siblings who are younger.

Ewert (1985) found that the desire for risk, exhilaration and excitement were highly significant factors as a result of his survey of involvement in rockclimbing/mountaineering (p 244). Meier (1980) also found that "there is an increasing rise in the popularity of leisure activities containing elements of challenge, risk, thrill, stress and adventure" (p 13).

Such is the desire and public demand for "risk recreation" in the United States that the managers of National Parks have found it necessary to adjust both their thinking and management strategy (Dunn and Gulbis: 1980; Ewert: 1985). No longer are high risk activities considered to be the province of a few 'fringe' individuals. Increasing numbers are taking up activities such as hang gliding, base jumping, bungy jumping, white water canoeing and rockclimbing. Dunn and Gulbis found that the Southern California Hang Glider Association membership increased from 25 in 1971, to 4000 in 1973 and that the number of hot-air balloon pilots increased ten fold over the period 1970 to 1974.

While precise figures on the numbers of climbers is difficult to obtain, indication of the growth of climbing comes from the publication of the magazine *Rock and Ice*. The first edition was printed in March 1984 and in the May 1993 edition of *Specialty News*, George Bracksiek, said that the magazine's circulation had topped 25,000 and was expected to pass 30,000 by the end of 1993. According to Bracksiek "our industry is more healthy than its ever been" and "he predicts sales growth in the sport will continue to outpace the national (US) economy" (p 8). Although this is directed primarily at the North American market the situation in Australia reflects

similar trends according to one Sydney retailer[2], which has experienced considerable growth in sales of rockclimbing hardware and consumables.

These increasing numbers would seem to indicate that there is a desire on the part of many individuals to undertake what are seen as activities that involve some degree of risk.

This increase in high risk activities and high adventure outdoor pursuits appears to meet a need for individuals to include some form of risk in their otherwise secure existences. This is one of the theses expounded by Mitchell (1983). A prime motive that Mitchell found given by novice climbers for commencing mountaineering was that, since they had secure jobs and a relatively safe day-to-day existence, they instinctively looked for an activity, such as climbing, that involved some risk or adventure.

However, such an explanation may not necessarily apply to all cases. Many sports psychologists and behavioural scientists have proposed an alternate hypothesis. For example, both Ogelvy (1974) and Beisser (1977) examined the personalities of risk takers and conclude that, essentially, they are no different from non-risk takers. The only difference appears to be that risk takers also tend to be the sort of individuals who took some form of risk in their day-to-day lives - not necessarily great risks. They were the sort of personalities who were prepared to go and meet a challenge, for example, in management or business.

This phenomenon of risk across the whole of life has recently been emphasised by Boga (1988) in his study of the lives of athletes involved in high risk activities and earlier by Anderson (1970) who wrote of,

> *... some form of special adaption, which prompts a few individuals to exploits which, however purposeless they may seem, are of value to the survival of the race* (p 17).

This he termed the “Ulysses factor” (p 17).

Boga (1988) examined the lives of a number of athletes, including a cyclist, canoeist, ultra-marathoner, hang glider pilot, rockclimber and high altitude mountaineer, all of whom had set some form of world standard in the performance of their chosen activity. One of his findings was that these athletes not only took risks in performing their chosen activity but they were also prepared to take risks in the overall direction of their lives and subsequent careers. Anderson (1970) chose

[2] Paddy Pallin P/L outdoor equipment supply retailer - private communication from

to examine the lives of those who had chosen to commit the whole course of their lives to the pursuit of a goal. These are individuals such as solo around-the-world sailors and trans-Atlantic rowers. These individuals, Anderson found, would commit their whole being, regardless of anything else, to extremely risky projects. Unfortunately Anderson did not examine motives for such commitment.

Apparent Risk

Not all "risk" activities actually need to be highly dangerous in order to give the impression of risk. In most risk activities, at least at the novice stage where participants are under instruction, there is a high level of perceived risk. The real risk is generally quite small. Schreyer, White and McCool (1980) examined the concept of risk in recreation and drew several important conclusions, the main one being that the risk perception will change as the individual slowly moves from novice to expert. "The veteran adventurer is likely to be somewhat oblivious to the tension of danger while more concerned with the aspects of skill and sensory arousal" (p 25). As mentioned above, the risk proceeds from a high perceived risk with a low real risk, to high real risk situations. (An experienced participant would argue that the risk is under control at all times and is not as threatening as circumstances would appear.) However, the perception of risk by the novice, even if the risk is not necessarily real, is just as valid as the existence of real risk to the expert.

While the expert is liable to be somewhat removed from the tension and danger and more concerned "with aspects of skill sensory arousal" the perception of risk may be, in fact, what has initially attracted the novice (Schreyer, White and McCool: 1980, p 25). Schreyer, White and McCool hypothesise that there is an evolution of involvement in the activities and that the "motivation in high adventure activities is not the same as the motivation for continued participation" (p 26). This implies that, over time, an individual's "concern for an activity is likely to move from external motivations to internal referents" (p 28). As a consequence an individual may initially participate for the thrill and to impress friends, while over time skill, challenge and sensory arousal become more important. Ewert (1985) also found this to be the case in relation to mountaineering,

> *It would seem that an individual often begins mountain climbing for extrinsic reasons such as recognition, escape, or socialisation. If they continue in the activity, these motivations change to a more intrinsic, personally rewarding basis such as exhilaration, personal testing. and being able to make decisions*. (Ewert: 1985, p 249)

Allen (1980b) observed that with risk recreation "knowing how an individual perceives a recreation activity is of more value than the activity itself" (p 54). This emphasises the individual's standpoint and in some respects the spiritual perspective of the whole situation. Allen's study also noted that "risk sport participants were similar in many respects regardless of sex" (p 60). This has been further reported by other researchers (Gardiner: 1990; Boga: 1988). Perhaps Allen's most important observation is that "even though an activity is regarded as risky, it is not accurate to assume that participation constitutes risk taking behaviour" (p 75).

The extreme hypothesis of risk taking is that proposed by Lyng's (1990) notion of "edgework". Edgework encompasses many activities, all of which, Lyng proposes, have one feature in common: "they all involve a clearly observable threat to one's physical or mental well-being or one's sense of an ordered existence" (p 857). In abstract terms, edgework lies at the boundary dividing order from disorder and form from formlessness. Crossing the boundary will lead to chaos and ultimately disaster. Lyng's statement that "the ultimate goal of those who pursue edgework is to survive the experience" is making great assumptions about those who take risks (p 875). Certainly this concept may be true for some but, as mentioned above, the studies of Schreyer, White and McCool (1980) showed that experts may become "oblivious to the tension of danger while more concerned with the aspects of skill and sensory arousal" (p 25). This, to some extent, is contradictory to Lyng's concept of edgework and should be kept in mind when applying the concept of edgework to more experienced participants.

While the concept of edgework can certainly be applied to rockclimbing it does appear limited when extrapolated to a diverse range of participants. Even Alvarez (1974) when he wrote his piece "I Like to Risk my Life" was doing so with a certain degree of the colloquial 'tongue in cheek'. The concept of edgework is certainly applicable and was partially anticipated by Robinson (1969) when he stated "I try in my climbing to push my personal limit, to do climbs that are questionable to me ... we all walk the feather edge - each man [sic] his own unique edge" (p 9).

Real Risk

Both the real and apparent risks associated with an activity are often very different to the physical injury rate. The concept of an apparent risk as opposed to a real risk is discernible in relation to the amount of control the participant has over the situation. Even in the case of a real risk, there is a lot more participant control over the situation than may appear to an external observer. This is equally true for both the novice and experienced participant. Most of the risk relates not simply to

something going wrong but rather something going wrong in the wrong place, be it remote or just a very inaccessible location.

Sometimes participants in an activity can easily dismiss real risks that wider population would consider to be too great. Cavers have been shown to be at risk of contracting a rare respiratory disease from bat droppings, histoplasmosis. This is a potentially fatal disease and active cavers are said to have a one-in-three chance of catching the disease. However, cavers consider that "driving [by car] to a cave, or anywhere in Australia ... possesses a greater danger of fatal injury" (Fraay: 1995, p 114).

While actual injury rates are difficult to assess, Humphries (1993: p 285) reports that moderate and severe injuries account for an injury rate of 0.4 per 1000 hours of participation for Australian rockclimbers. A moderate injury was defined as "one requiring treatment by a doctor, physiotherapist or similar clinician and a severe injury as one requiring hospitalisation or surgery" (p 283). The study included all categories of climbers from novice to very experienced. This compares to football (all codes) 2.0, squash 1.2 and netball 1.0. Seward et al (1993: p 298) reported that for Australian Rules football at the élite level the reported injury rate was around 63 injuries per 1000 player hours and that this correlated well his with earlier studies. In a separate study of Australian Rules football players in the under 15 years categories, McMahon, Nolan, Bennett and Carlin (1993) found that the overall injury rate was 8.08 injuries per 1000 player hours (p 301). These figures can be regarded as an order of magnitude indication of the observed injury rates and they illustrate that often the popular perception of risk and danger is not necessarily appropriate.

Substitutability

Both Christensen and Yoesting (1977) and Iso-Ahola (1980) have examined the concept of the substitutability of leisure activities. Iso-Ahola (1980) defined activities that exhibit this characteristic as those "which can be substituted for one another without great loss in the psychological value which they presumably represent" (p 138). This assumes that leisure activities can be clustered around common factors or dimensions and it would be reasonable to expect that activities that have more factors or dimensions in common would be substitutable amongst each other. Christensen and Yoesting (1977) developed this hypothesis and found that, while the then current theories of substitutability were far too simple to be directly applied, the notions of "'activity types' and substitutability within 'activity types' seem to be potentially useful concepts" (p 204). Even though they were looking at substitutability in relation to the management and planning of outdoor

recreation facilities, the concept is worthy of consideration when examining rockclimbing. This could determine whether the motives for rockclimbing are climbing specific or if the activity of climbing could be substituted for any one of a number of alternate activities. These activities would have many similar characteristics to rockclimbing, for example para-gliding, white water canoeing, mountain biking or hang gliding.

The obvious existence of substitutability can be seen in many of the equipment shops that supply paraphernalia for outdoor adventure activities. When the owners and/or operators of these stores are themselves active in the high adventure activities they tend to market equipment that they see as being related to their particular adventure interests. Hence it is not uncommon to see in stock, equipment for rockclimbing, mountain-biking, ocean and white water canoeing, parapenting, snow-boarding and skiing. All of these activities rate high on the list of "risk" activities and could be theoretically interpreted as "substitutable" for each other.

If particular activities are directly substitutable then it is possible that comments made by participants as to their motivations may relate to a group of substitutable activities, not only to the activity in which they are currently involved. Substitutability for these participants means that they can obtain similar rewards from any one of several activities and that they may select any one of a number of convenient activities rather than be limited to one specific choice.

Amateurism, Commitment and Marginalisation

When an individual participates in an activity there are various levels of participation from casual to total commitment. A person who has a high degree of interest in an activity but does not make it their occupation is usually called an amateur. The exact definition of an amateur is difficult to formulate as the distinction of exactly when an ‘amateur’ becomes a ‘professional’ is not clear cut. It has been said that the only difference between the modern amateur and professional is that the professional is paid by cheque! However, many amateurs often receive some form of payment or reward for their participation. Thus the distinction is gradually breaking down.

Certainly the performance of a skilled amateur could never be called ‘amateurish’, while the performance of some professionals can be very ‘amateurish’ indeed. The concept of the modern amateur who is skilled at a particular activity is very different from the 'dabbler' or occasional participant. It is the fine difference that

exists as the performance of the skilled amateur approaches that of the professional.

Stebbins (1979) looked at the relationship between individuals who were intensely involved in an activity as serious amateurs and professionals. His studies covered, in particular, amateur archaeologists, actors and baseball players. During the course of this study he found that, in general, the enthusiastic amateurs were marginalised from their wider peer group and, to a degree, from society at large. The basis for this finding is that research into leisure activities in western countries has established that adult leisure patterns tend to be oriented around television, following popular sports and family activities. Engaging in a leisure activity that does not orient the individual toward television and popular sports teams means that "amateurs find themselves at least partially estranged from the mass culture of the day" (p 263). This estrangement has four main consequences: 1) a degree of marginality to society as a whole; 2) the marginality can lead to a tendency for the amateur's avocation to get out of hand; 3) that the amateur must make his/her living in some other way compared to the professional; and 4) a frustration that their efforts at the chosen avocation cannot reach the standard of the professional due to the lack of time and resources.

Stebbins also remarked that those who participate in a leisure activity that is seen as different "are marginal in the sense that they have chosen a marginal form of leisure ... they are not participating in popular leisure" (p 261). When an activity is seen to be in the position that society as a whole does not understand the culture of the activity, society declares the activity to be a `fringe' activity and hence marginalises the participants. In this way amateurs are doubly marginalised.

This marginality is regarded by many individuals who climb as an attraction to climbing in that it makes them different and to some extent places them on the 'fringe' of society. It is also seen as a rejection of many social norms and activities of popular culture. This aspect is discussed at length by Roper (1994).

At this point it is interesting to note an observation made by Deci and Ryan (1985) in regard to intrinsic and extrinsic motivation when the line is crossed from "enthusiastic" amateur to professional. They observed that participants in activities who received extrinsic rewards tended to report less enjoyment of the activity than those who relied purely on intrinsic rewards. This related to sports people who turned professional and reported they now found less enjoyment in the activity itself. After they became professional, scholarship athletes at colleges in the US "listed more extrinsic reasons for participation and reported less enjoyment of the

activity than non-scholarship athletes" (p 316). Incentives and payment of participants can decrease one's enjoyment and intrinsic motivation of an activity.

Deci and Ryan also observed that children tended to remain more interested in learning activities for which there was no extrinsic incentive. This, they suggested, showed that extrinsic rewards can actually undermine a child's interest in an activity. The fact that individuals tend to choose activities that they find intrinsically motivating supports the views of Iso-Ahola (1980) that perceived freedom and/or self-determination is a fundamental requirement for continued participation.

Climbing Literature

Through an examination of the popular ‘climbing literature’ it is possible to see how some climbers have expressed their own motivations and the motivations of others in relation to climbing. This section is not intended to be exhaustive but is rather designed to briefly sample typical comments and insights.

Conventionally, climbing literature has involved the telling of a story about a climb or a climber. Periodically, these works digress from their traditional narrative nature (Herzog: 1952, Hunt: 1953 and Ullman: 1964) and venture into the realm of personal insights and motivations for climbing (Bonnington: 1973, Messner: 1973 and Gray: 1990). It is primarily in the more recent literature that this has begun to occur, as most earlier works tended to be more restrained and concentrated on the narrative.

Contemporary authors have begun to examine the motivations of the main character endeavouring to show them in a more 'human' light. This approach has permitted a view of the climbing community otherwise not accessible. However, it is not possible to be as objective as ideally desired as it is usually the more well known climbers or those who are more articulate who get into print.

Some works, such as Gardiner's (1990) *Why I Climb*, simply take the approach of talking to many climbers and asking them ‘why do you climb?’. This approach by Gardiner gathered varied replies from many climbers echoing their feelings in relation to climbing. Many comments were simple statements made at the moment. Typical examples were: Scott Heywood - “climbing gives you a reason to be. It gave me a purpose and however arbitrary those definitions are, we were working at it very hard” (p 5); Jim Whittaker - “if there’s a mountain, we climb it. I believe in that. It’s meeting challenges. God knows there are a lot of mountains in one’s life” (p 14); Beverly Johnson - “It’s like standing on the edge and having to control these factors which have a very critical outcome. If we all lived forever, I

don't know that people would bother going climbing. Think of climbing if you had wings. How interesting would that be?" (p 93); Lynn Hill - "the most important factor is desire. I love to climb." (p 118); all of the quoted climbers work professionally in the area and are well known in climbing circles.

Further insight comes from those climbers who put their own thoughts on paper and have cause to reflect on their own motivations. Well known English climber Doug Scott stated that "the more one goes into mountains the more one realises that they are but a medium for exploration into oneself" (Bonnington: 1975, p 17). Mo Anthoine felt that:

> *climbing ... isn't a sport at all. It's a pastime. It involves pleasure. Where as a sport, by definition, involves competition. In climbing, the only competition is within yourself - that is , with your protesting muscles, your nerves and, when things go wrong, your reserves of character. It is even, in its way, an intellectual activity, though with one important qualification: you have to think with your body. ... It's like playing chess with your body.* (Alvarez: 1988, p 26)

Expressed feelings such as these embody many of the aspects of motivation discussed previously. The physical activity and sense of adventure in extending one's own physical boundaries; the mental challenge of solving an intellectual problem and transposing this into a series of physical movements; and the requirement to look further than the present physical moment and draw on reserves in order to successfully complete the climb.

Hall (1995), in a recent interview with the well known US rockclimber and now business person Yvon Chouinard, wrote:-

> *A climb is perfect Zen," said Yvon afterwards when we were back below the cliff. "What are we trying to do here?: He waved his hand at the rock which rose above us. "Are we trying to get to the top?"*
>
> *He didn't have to answer his questions. If the top was the goal there were more logical ways of getting there. Rockclimbing is about the passage of a person over the rock. It's about the process of doing.* (Hall: 1995, p 34)

On a level that reflects the 'average' climber Susan Schwartz (1994) wrote:-

> *The question remains: why bother struggling to climb, especially if your life is fairly fulfilling without it, you'll never be an outstanding climber, and you really understand that you or someone you love could die climbing.*

The answer for me was there the first time I climbed. After the terror came astonishment - a fantastically beautiful world I hadn't known existed - and wonder. Everything in this new world was on a grander scale than the urban world: the settings, the emotions and insights it inspired, and the issues it revealed, like the most basic ones of life and death.

After climbing I felt rejuvenated better able to see past the jumble of daily stresses and demands to what is really important in life: Courage. Grace. Humour. Humility. (Schwartz: 1994, p 176)

While the average climber may not express herself or himself in quite these terms, this quote is from a climber who is not a celebrity climber, famous personality or in fact special in any way except that she was requested to write a specific article.

The comments and insights from climbing authors reflect motives discussed earlier in the literature review. A comparison of such comments with those obtained from respondents to the research will help to broaden the perspective of the research and give the results greater generality.

This concludes the survey of the literature directly connected with motivation. There is little doubt that, from individual to individual, and over the various distinct sections of the life cycle, motivation will vary and be a direct result of the prevailing conditions. Just how this occurs and evolves is one of the subjects of this study.

The following sections examine current models and theories and how some of the motivations discussed previously are utilised to explain action, commitment and participation in leisure activities. Models are illustrated and discussed in relation to rockclimbing. No judgement is made as to their effectiveness and/or appropriateness in this regard. The models and theories are presented on their own merits and are applied further when discussing the results of the research.

2.4 Participation

This section of the literature survey reviews models of participation, particularly those models applicable to rockclimbing and outdoor ‘adventure’ activities. The main models considered are; attribution theory; the conceptual model of recreational development; the competence-effectance model; recreational specialisation; Mortlock’s stages; flow and the peak experience; and reversal theory. Each of these models has their area of application and their limitations.

They are all useful in providing an understanding of how participation in rockclimbing develops.

Attribution Theory

Attribution Theory provides a straight forward description of how motivation is sustained and interest maintained in an activity. Iso-Ahola (1976) referred to attribution theory as a mechanism that linked the outcome of certain events with specific causes.

Bandura (1977) saw self-efficacy as the " individual's perception of his/her ability to perform anticipated demands" (p 191). Self-efficacy is affected by one's perceived level of ability; the effort required to perform the task; the amount of external aid expected while performing the task; the degree of difficulty of the task to be undertaken; the circumstances under which the task is to be performed; and the previous patterns of success. The most important of these factors is the last. Previous successes, and the degree to which these previous successes have been able to lift the individual's self-confidence and skill level.

The perception of self-efficacy is influenced by the magnitude of the task; the generality of the skills that have been learned and how transferable these skills are; and the strength or persistence one is prepared to show in the activity.

Self-efficacy is enhanced by receiving the rewards that are linked directly to accomplishments; achieving specific set performance standards; and successfully achieving goals that are not too distant but are perceived as being 'attainable'.

The mechanism of self-efficacy is useful in both the short and long term aspects of the activity cycle. In respect to climbing, self-efficacy will govern whether or not an individual will successfully gain sufficient skill to be satisfied with their progress and reach the stage where they feel they can gain as much satisfaction from the activity as they require. In the long term, periodic goals must be attained. Such goals could be visiting new climbing areas, creating new climbs and improving skills. Gray (1990) discusses how his own philosophy of life is built around the new climbing experience, making new acquaintances in new countries and new climbing areas. He simply states "I cannot stop. It is a need in me that must be met, for it is my contact with nature, and this I have loved above all else." (p 198)

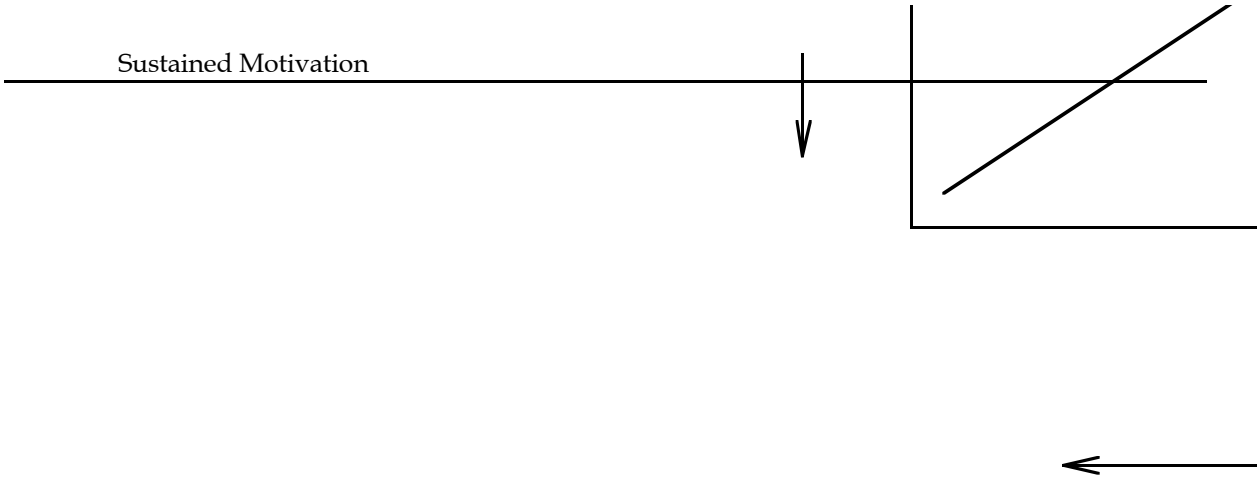
Part of the process of internalising motivation relates to the concept of Attribution Theory. Attribution Theory was initially proposed by Heider (1958) and has been

discussed more fully in relation to the current context by Weiner, Frieze, Kukla, Reed, Rest and Rosenbaum (1971), Iso-Ahola (1976) and Ewert (1989). The theory is centred on the concept that an individual's behaviour is determined by their perception of the causality of the behaviour. It relates the stability dimension of an activity (stable or unstable) to the locus of control (internal or external) (see Figure 2.1). When an individual reaches the state where they have stable-intrinsic reasons for climbing, then they are likely to become long term participants of the activity. Whereas the unstable-extrinsic situation does not promote long term participation.

The most stable situation, when participation will be continued for a considerable time, is when the rewards have been internalised and have become intrinsic rewards. The activity is enjoyed for its own sake and not for some external reason such as socialisation. While socialisation can be a reward of participation, if it is the prime objective then climbing activities could be substituted for equally well by an alternate activity and the same end result achieved. The most unstable situation, when participation is only marginal, occurs when climbing is undertaken only when some friends invite the participant to go along. There is no intrinsic need or feeling to undertake climbing and it is just another activity.

An example of the application of Attribution Theory to rockclimbing is illustrated by Figure 2.1.

Figure 2.1 - **Attribution Theory as related to rockclimbing**
(after Bandura 1977)



Stability dimension	Internality dimension (locus of control)	
	Intrinsic	Extrinsic
STABLE	I like to climb because I am good at it and get a lot out of climbing	I climb because I can socialise with my friends
UNSTABLE	I climb because it's inexpensive and easy to get to	I climb when my friends invite me to go along

The Conceptual Model of Recreation Development

In considering the initial stages of participation in an activity the conceptual model of outdoor recreation developed by Ewert (1989) is useful. This model can be visualised in the form of a graph with the abscissa variables being either the type of risk or motivational factors (see Figure 2.2).

Figure 2.2 **The Conceptual Model of Recreation Development** (after Ewert 1989)

The graph relates the risk or motivational variables to the ordinate variables of either locus of control or social orientation, such that we can relate locus of control to type of risk or motivational factors. The curve that relates the variables is the skill development. This commences at the introductory level near the origin and proceeds with time to the stage of commitment. The relationship of the two variables through the skill development can be regarded as the individual's 'world line'.

The variables themselves range as follows:-

The ordinates are:-

a) 'locus of control' which commences from external sources such as friends and social institutions and develops through peer groups, instructors and mentors until the final locus is internalised; and

b) 'social orientation'. This follows a similar course initially from being involved through friends and acquaintances, progressing to a stage where only one or two others may be involved and possibly to solo activities.

The abscissa variables are:-

a) The 'type of risk' which will initially commence as being a very low to non existent real risk but perhaps with a very high perceived risk. Gradually as skills develop the real risk increases according to the skill level. One important concept at this juncture is that the risk level as perceived by the participant is almost constant. It is not until a high skill level is reached that the apparent risk is seen as such.

b) Initially "motivational factors" are extrinsic, such as for the novelty value, image or socialisation that participation may give. As skill develops extrinsic turn to intrinsic factors as in the awareness of self, self control, self efficacy and the challenge.

The Competence - Effectance Model

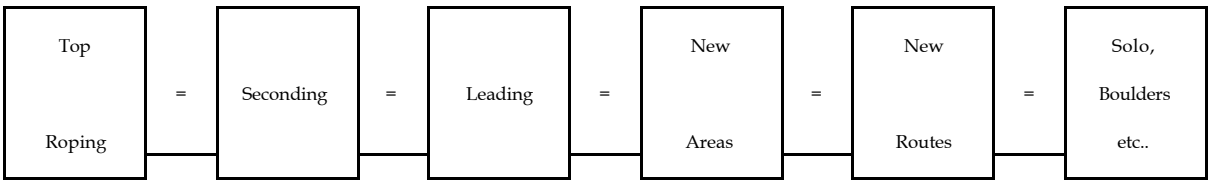
A further useful model developed by several writers including Bryan (1979), and mentioned by Ewert (1989), is the Competence - Effectance model. This model

shows a simple linear progression over time of how skills, commitment and involvement develop.

It is argued by Bryant that when commencing any activity there is a certain base level of skills and competencies that the beginner must learn in order to be able to functionally participate. Rules must be learnt and understood. In team activities the function and interaction of all team members must also be understood. This can be regarded as the first stage of participation. From there the next step is active use of these acquired skills in easy competition and friendly games. This is step two in the Competence - Effectance model. Further steps follow as skill, experience and interest in the activity develop and the structured progression of these steps results in the model itself.

A theoretical application of this model to rockclimbing is illustrated in Figure 2.3, where there is a progression through various skill levels.

Figure 2.3 - **The Competence - Effectance Model**
(Suggested example, adapted from Ewert 1989)



Each time a new skill level is attained, further opportunities are opened up to the participant. However, being at a particular skill level does not imply that one cannot still be active or enjoy participating at a "lower" level. Movement is free in both directions along the chain once the experience or learning barriers have been overcome.

In many respects this model can be regarded as a generalised extension or development of Recreational Specialisation discussed below.

Recreational Specialisation

It is constructive to examine the concept of recreational specialisation as proposed by Bryan (1977) as it is a logical extension of the Competence - Effectance model. Chronologically the latter preceded the former, however, in application the current sequence presents a clearer picture.

Bryan examined recreational specialisation as it applied to trout fishers. Study participants were placed on a continuum from those who were interested in some specific branch of the sport to those who had more general recreational interest. The term recreational specialisation ".. refers to a continuum of behaviour from the general to the particular, reflected by equipment and skills used ... and activity setting preferences" (p 175).

Using Bryan's work we can summarise that there will be four basic sub-categories in the continuum. These sub-categories are:-

1) Occasional participant - not yet an established participant, as new to the activity;
2) Generalist - established in the activity but has not yet specialised;
3) Technique specialist - specialises in a particular branch of the activity; and
4) Technique setting specialist - sets new standards and is at the leading edge in a specialised area.

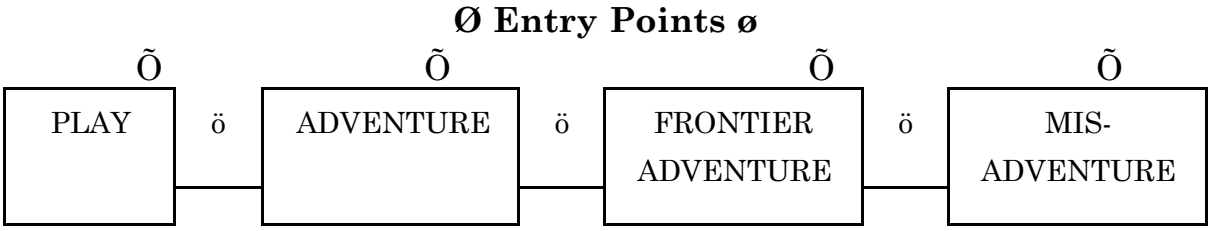
With an activity such as climbing, the specialisation category would change over time as it would be very difficult to remain at a very high level for many years. As with any activity, the constant demands of training, commitment and time would be difficult to maintain over the life cycle. In the long term, most climbers would settle in the generalist category, or perhaps the technique specialist category, if they are regularly creating new rockclimbs for example.

An increasing specialisation does not, however, imply any lessening of interest outside the specialty. In fact the commitment to the activity will tend to be constantly increasing. An examination of the degree of specialisation throughout the activity profile also gives insight into the meaning and significance attached to the activity.

Mortlock's Stages

Mortlock (1984) is an adventurer who has also been involved with the education of British youth in outdoor training facilities, very similar to the Outward Bound organisation. He described the stages of an individual's involvement in an outdoor or 'adventure' activity. Symbolically this involvement can be represented by Diagram 2.4.

Figure 2.4 - **Mortlock's Stages**
(After Mortlock, 1984)



A novice or experienced player can enter the system at any stage and move around at will. The stages are all relative to the players experience and do not represent an absolute scale. The labels attempt to describe the level at which the players participate in the activity.

Play describes the base level at which the player can participate. This could be at a very high skill level for an experienced player or a low skill level for a novice. At this stage the game is essentially fun, pleasant and treated as a relaxing experience.

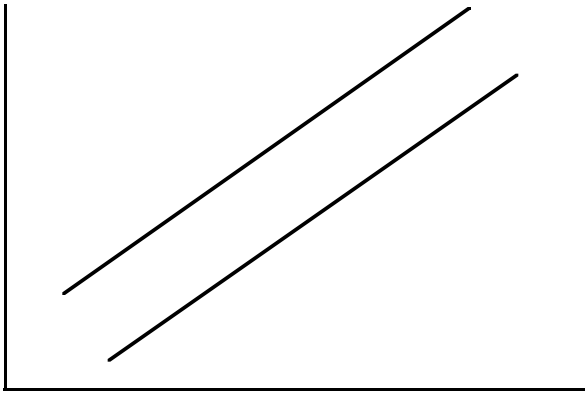
Adventure is the stage where the player is using learned skills, experience and abilities to overcome situations and technical problems. There is only a very limited physical risk. At this level there is a process of skills learning and refining. This is a stage of "positive and satisfying human feelings" (p 24).

Frontier Adventure is the stage where the intensity of **Adventure** has "progressed in intensity to the peak experiences" (p 24). This is the level just beyond **Adventure** where there is some possibility of physical harm. However, the skill level of the player keeps this at arms length. The player often feels "poised on a knife edge" (p 23) and the total experience is "of the type that makes life worth living" (p 24). This experience is potentially available to almost anyone who cares to progress this far in any activity. This is possibly the most important stage for at the completion of the game there is a feeling of elation and great satisfaction for a task successfully accomplished.

Misadventure, as the term implies, is the ultimate ‘endgame’ where the result is mental anguish (anxiety) or possibly physical injury. Skill levels were not up to the task, the situation got out of control and went disastrously wrong. What for an experienced player may be fun - well within the required experience and skill level - may well result in misadventure for the novice player. Misadventure is "concerned with immediate negative and disruptive feelings" (p 24).

This series of stages of involvement is a relative scale. What for a novice may be a "frontier adventure", may well be experienced as play for a more skilled player. However, even the most experienced player can reach a stage of "frontier

adventure" or even "misadventure" by simply seeking out those situations that require more skill and experience.



Flow

Frequently while participating in an activity that requires intense concentration a mental state referred to as 'flow' can be experienced. This is a state where the mental concentration is such, that all otherwise distracting inputs are put to one side. The mind is focussed totally on the task at hand. 'Flow' is interpreted as a pleasurable experience. The concept of Flow was developed and popularised by Csikszentmihalyi (1975) although a similar theme had been documented earlier (see Csikszentmihalyi pp 36 - 37). According to Csikszentmihalyi:

> *... in the flow state, action follows upon action according to an internal logic that seems to need no conscious intention by the actor. He [sic] experiences it as a unified flowing from one moment to the next, in which he is in control of his actions, and in which there is little distinction between past, present and future*. (Csikszentmihalyi: 1975, p 36)

The concept of Flow can be outlined as follows with reference to Figure 2.5. If an individual participating in an activity experiences too much challenge for his/her skill level s/he will become anxious and not enjoy the activity. As the degree of challenge falls with respect to the skill level, this anxiety turns to worry or a lower level of anxiety. The challenge is only just outside the individual's reach. When the level of challenge matches the individual's skill performance a state of Flow is said to exist. In the Flow state the individual experiences maximum enjoyment of the activity. As the level of skill becomes greater than the challenge presented, a state of boredom is encountered and enjoyment begins to lapse. When the challenge decreases still further, the boredom turns to frustrated anxiety as all enjoyment and challenge has gone from the activity.

Figure 2.5 **The Concept of Flow**
(after Csikszentmihalyi 1975)

This model has been extensively developed and utilised and has been shown by Csikszentmihalyi to represent a reasonable model of the real world situation. The model is certainly applicable to climbing as climbers were one of the specific study groups. Csikszentmihalyi successfully applied this flow model to many activities including chess, rock dancing, the composition of music and surgery.

According to respondents to Csikszentmihalyi's research on Flow, as long as the individual continues in the stream of the Flow all goes well, it's like being on automatic pilot, "you don't see yourself as separate from the immediate activity" (p 39) and all "problems are suspended for the duration" of the event (p 40).

One consequence of this is that the activity becomes exhilarating and addictive like a "bloody drug" (p 98). This is why individuals are willing to relinquish other major activities in their life in order to continue to pursue the activity. The existence of the 'surfing bum' and 'ski bum' typify the genré. Individuals who live for rockclimbing at a minimal level of material existence , climb full time at various crags and follow the seasons around the world are very common.

A further consequence of the 'high' generated by the Flow experience and the total immersion in the activity is that "memory input [is] cut off", as one climber said, "all I can remember is the last thirty seconds and all I can think about is the next five minutes" (p 81). This has some correspondence with the meditative state strived for by many eastern religions. Perhaps the activity itself then becomes a form of meditation or opportunity for mental cleansing, where all other thoughts that can possibly act as a distracter are removed from the consciousness and all of the mental faculties are devoted to the job at hand. Arguably, on return to the work-a-day world a new vigour is experienced and a 'fresh' start can be made as a period of detachment has been provided by the Flow activity.

Csikszentmihalyi concluded that the opportunity for Flow is the main feature that an activity must possess in order to entice individuals to return to the activity. Flow develops in activities that Csiszentmihalyi found primarily function from intrinsic personal rewards and were autotelic in nature. He defined an autotelic activity as one that "required formal and extensive output on the part of the actor, yet provided few if any conventional rewards" (p 10).

There is one particular difficulty in the application of flow to rockclimbing. When applying Flow it is predicted that while a climber is performing at a level where his or her skills match the challenge of the task at hand, there will be a state of Flow and the activity will be enjoyed. However, there are times during a climb when the climber is not physically engaged in the act of climbing. This, for example, may be when belaying on a ledge while another climber climbs the pitch. According to Flow this climber is then ‘under challenged’ for their skill and they should experience boredom or in the extreme, anxiety. This seems rarely be the case and anecdotal evidence appears to support this claim. The climber may still be enjoying climbing but from a different perspective. Perhaps in a state of relaxation, enjoying the view or contemplating the current or previous climbs. This difficulty can also exist if the climber is climbing a route that is ‘easier’ than his/her normal standard or participating in other climbing activities.

Perhaps this point is well summarised in an essay by Lumsdaine (1996) in which he says,

> *I think that, just as in music where the spaces in between the notes are more important than the notes themselves, so in climbing it’s the pauses between the going ups that are the most significant* (p 80).

The Peak Experience

Similar to Flow is the "peak experience" proposed by Maslow (1970). Maslow's 'Hierarchy of Need' proposes an ordered structure of five levels of motivation. The hierarchy starts at the most basic 'physiological needs' level, such as the need for food and water. Level two consists of safety needs - stability, protection and security. Thirdly comes the need for love, affection and 'belongingness'. Fourthly the esteem needs characterised by self confidence, self worth, strength and capability. Finally, at level five, is the need for self-actualisation. It is at the fifth level that the requirement exists for emotional 'peak experiences'.

Self-actualisation is the act of striving to develop the self in order to develop one's potential to the maximum. Those interested in self-actualisation often undertake

courses and/or look for activities that they feel will allow them to express themselves, to expand their horizons, to develop their skills and to do so in a way that will give them emotional 'peak experiences'. These are experiences of extreme emotional enjoyment and satisfaction and they derive directly from the activities undertaken. The feelings from these 'peak experiences' in turn fuel the drive for the internalisation of rewards and the intrinsic reward process.

Mills (1985) tested Maslow's theory by surveying downhill skiers at a US downhill ski area and, while not specifically verifying Maslow's hierarchy, he concluded that "the overwhelming majority of downhill skiers ... displayed activation of the need for self actualisation" (p 198). This also corresponds with Csikszentmihalyi (1975) whose data suggested "that one can more easily respond to intrinsic rewards when one has not been deprived of extrinsic rewards" (p 20).

Unlike flow, the peak experience appears to be a more transient experience, along the lines of a climax to the activity or the culmination of a series of events leading up to the final phase of an activity. It is not ongoing during the activity. It is an anticipated outcome of participation rather than a part of participation.

However, the existence of the 'peak experience', like flow, acts to draw the individual back to the experience.

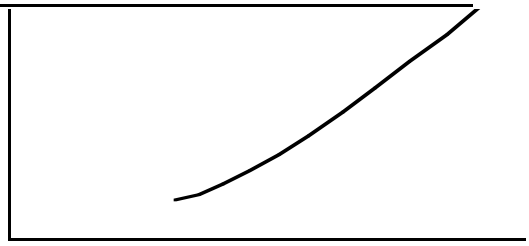
Reversal Theory

Reversal Theory (Apter, 1989) is constructed on the premise that there exist sets or pairs of contrasting states of mind or modes. Depending on the individual and the circumstances these states can reverse very rapidly.

For example, there are two main ways of looking at the world - "excitement seeking" and "arousal avoidance". These two "ways of being" are opposite ways of looking at the world. In relation to such activities as rockclimbing, the theory is well described by Apter (1992).

According to Apter there are four major modes; boredom, excitement; relaxation; and anxiety.

A state of boredom exists if an individual is experiencing low arousal and unpleasant feelings At the opposite extreme is excitement, a mode characterised by high arousal and pleasant feelings. These two modes couple to give the first of the "ways of being" mentioned above - excitement seeking.



The second view of the world, arousal avoidance, is characterised by the opposite modes of relaxation and anxiety. Relaxation is a combination of low arousal and pleasant feelings while anxiety is a mode of high arousal and unpleasant feelings.

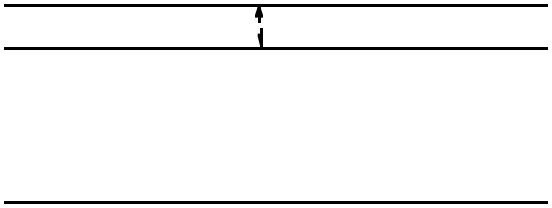
Those who perceive the world through an arousal avoidance perspective prefer to seek pleasant feelings in a state of low arousal - relaxation. High arousal to them is very unpleasant and is experienced as anxiety provoking. Contrast this to the excitement-seeking perspective. Low arousal produces boredom and there is constantly a search for excitement. A mode of high arousal with pleasant feelings. Figure 2.6 illustrates Reversal Theory.

Figure 2.6 - **Reversal Theory**
(After Apter 1992)

For most of the time an individual will operate at the junction of the two curves with moderate arousal and neither particularly pleasant or unpleasant feelings. Studies have shown (Apter: 1989, p 21) that people regularly switch arousal preferences throughout the day.
The vertical axis of the graph, pleasant and unpleasant feelings, is called the Hedonic Tone, while the horizontal axis is that of Arousal Level and ranges from low to high.

A 'reversal' occurs when two modes are rapidly interchanged. Current Reversal Theory postulates that the changes will occur between relaxation and boredom or

excitement and anxiety. This is because pleasant and unpleasant feelings can vary rapidly while the arousal level takes more time to adjust to the circumstances. For example, a switch from excitement to anxiety exhibits a rapid change in feelings from pleasant to unpleasant while the arousal level remains at a constant high. The higher the initial excitement the greater the consequent anxiety. An example of this could occur when during the free fall in a parachute jump the sky-diver realises that his canopy will not deploy. Here a mode of high excitement quickly becomes one of extreme anxiety as a state of high arousal switches from pleasant to unpleasant.



In an activity that has a high level of arousal the objective is to enjoy the arousal such that it remains a pleasant experience. The participant wishes to remain in a state of excitement and not fall into an unpleasant experience in a state of anxiety. The participant must retain control of the situation to the extent that a mode of excitement is constantly maintained while arousal is high. To do this the individual constructs a "protective frame", a psychological construct related to self perceived skill levels and experience. The protective frame is constructed in such a way that for as long as the individual operates on the "safe" side of the frame, anxiety and physical injury, are avoided. As the participant's skill level develops they will push this protective frame higher and closer to the limits.

The protective frame can be thought of as existing in the space illustrated by Figure 2.7. Initially there is the "safety zone". At this level there is low arousal and minimal personal risk. At the second level comes the "danger zone". Here there is an increasing level of personal risk to the participant. In the case of rockclimbing this may be to life and limb. The degree of risk is related to the level of skill the individual has in relation to the difficulty of the task undertaken. In this zone the presence of the danger increases arousal and if kept within bounds a mode of excitement persists. If the bounds are exceeded a mode of anxiety will develop. It is here that the construction of the protective frame ensures that excitement prevails.

Figure 2.7 - **The Protective Frame**
(after Apter 1992)

The third zone is the "trauma zone". Here serious personal injury is imminent. The protective frame has been passed and a state of anxiety rapidly develops. Between the danger zone and the trauma zone is the "dangerous edge". The protective frame is inside the dangerous edge but just how far it is constructed inside the dangerous edge will depend on the perceptions of the individual. The gap between the dangerous edge and the protective frame is the "safety margin".

The size of this safety margin will determine how rapidly the trauma zone is entered once the bounds of safety have been exceeded. The closer the protective frame is to the dangerous edge the greater the probability of trauma. If a rockclimber loses his/her "nerve" during a crucial part of a climb then the protective frame must be rapidly reconstructed away from the dangerous edge or the possibility of trauma increases dramatically. The safety margin must be increased.

The relative positioning of the trauma zone and the danger zone is subjective and is closely related to the climber's perception of his or her skills and the possibility of danger. An experienced climber wishing to increase the excitement will operate with the protective frame as close to the dangerous edge as possible - avoiding the dangerous edge but maintaining the state of excitement.

After a period of excitement it is postulated that an individual travels back down the excitement-seeking curve to a low arousal, unpleasant mode of boredom. Reversal Theory has not yet examined the possible movement between relaxation and excitement. This will be developed later in this thesis as it is seen as a deficiency in the current interpretation of reversal Theory.

The limitation is, that an individual cannot remain at a Hedonic Tone level of ‘pleasant’ while experiencing a variety of levels of arousal. One must oscillate either between Excitement and Boredom or Relaxation and Anxiety. Yet for most people who undertake exciting or adventurous activities it would seem more reasonable to expect that they can vary between states of Excitement and Relaxation if they are to be able to enjoy all phases of the activity. Indeed this would seem to be the case for many activities not simply adventurous activities.

2.5 Summary

The literature review discussed three main themes, encultration and the life-cycle, motivations for participation and conceptual models of participation. These themes were discussed in order to assist in the investigation of the motivation for long term participation. Enculturation and the life -cycle briefly looked at how leisure activities fit into society and the life-cycle and how they will change with time.

Motives covering a broad range that apply to rockclimbers have been presented. These motivations apply to many other activities as well as climbing. Many motivations appear to be oriented toward the achievement of intrinsic rewards or the seeking of different mental or physical environments. As suggested by Iso-Ahola (1989),

> *... there are only two fundamental decisions to leisure motivation: seeking personal/interpersonal intrinsic rewards, and escaping personal/ interpersonal environments through leisure experiences. Leisure motivation is not a matter of either seeking or escaping, but of both ... Those who have a high degree of specialisation in and commitment to a single leisure activity have been found to look for intrinsic rewards from their involvement.* (Iso-Ahola: 1989, p 269)

Many of the authors (Becker: 1953, Klapp: 1969, Csikszentmihalyi: 1975, Mills: 1985, Ewert: 1989 and Iso-Ahola: 1989) indicated that motivations vary over time. Motivations that originally inspired participation in a particular activity will most probably not be the same motivations for continued, long term participation. Both Csikszentmihalyi (1975) and Iso-Ahola (1989) considered that the motivations must progress from initially inspiring extrinsic rewards to those providing primarily intrinsic rewards for long term interest in the activity to be maintained.

Work by Becker (1953) suggested that the enjoyment of a complex activity needs to be learnt, that enjoyment may not necessarily be spontaneous at the first time of participation. Motivations for long term participation may have to be learnt.

Following the discussion of motives there was a brief examination of some examples from the climbing literature illustrating motivations that had been expressed by a diversity of climbers. These expressions of motivation were in keeping with what had been suggested in the more formal literature.

The third section of the literature review focussed on models of participation. Attribution Theory, the Conceptual Model of Recreation Development and the

Competence-Effectance Model tend to be short term models concentrating on the initial attractions to participation and the commitment to full participation in the activity. All of these models variously use the motives discussed, however, their application to long term participation would seem to be limited.

In the case of Attribution Theory the initial rewards commence with the extrinsic, unstable variety, for example, going climbing because your friends ask you to come along and socialise. These rewards gradually modify to become intrinsic, stable rewards of climbing, for it is found to be enjoyable. The individual is then interested primarily in the activity itself and not the peripherals that go with the activity.

Recreational Development proposes a very similar progression to Attribution Theory. Once a beginner starts climbing they gradually build up skills and experience so the they begin a positive feedback process whereby they attempt more difficult climbs and learn more skills - a positive, expanding process. In many aspects it is a positive feedback process in that ‘the better you become, the better you become’. The progression is more and more toward intrinsic rewards.

Again the Competence-Effectance model is a progression from a reliance on other participants, to attaining the skills and experience in order to gain self reliance and independence. The participant progresses to more and more difficult tasks.

While Recreational Specialisation considers participation over the longer term it does not really attempt to examine motivations or the reasons behind specialisation. It is more concerned with the categorisation of specialisation. Mortlock's Stages is similarly a categorisation process, along the lines of Recreational Specialisation, however, it has a definite orientation toward outdoor activities. The stages categorise the progress within an activity as experience develops and the desire to learn and build a wider experience grows.

The models of Flow and Reversal Theory are more applicable to long term participation than the other models of participation that have been considered. Flow in particular attempts to offer an interpretation of the processes involved when climbers continue with climbing over many years. One should not expect to experience a state of ‘Flow’ in the short term, some experience will need to be gained about the activity. Reversal Theory, while applicable in the long and short term, requires a certain degree of arousal and enjoyment to be reached before reversals can be experienced. These would be more possible over the longer term when a climber has gained more experience.

As discussed, both flow and Reversal Theory have difficulties in application as they are currently presented. Flow does not allow for an individual to enjoy him or her self when not performing to their level of abilities and Reversal Theory, that an individual is unable to change between Relaxation and Excitement. These difficulties limit the application of both theories on a wider level. These difficulties are to be examined in the research presented here.

Motivations can be viewed as the reasons why a climber climbs. Models of participation can be interpreted as indicating how these motives fit together in order to produce a particular behaviour pattern. The motivations are the building blocks of the action described by behavioural models. By undertaking a systematic exploration of expressed motives, the current research compared these motives with those discussed in the literature. It was anticipated that an understanding of motivation could lead to a similar understanding of long term participation in rockclimbing.

Existing anecdotal explanations of rockclimbing behaviour appear to conflict with observed practice. The results of this research and subsequent critical discussions seek to develop a new explaination by modifying existing theories in order to explain long term motivation for active participation in rockclimbing.

Plate 2 - **The Climbing Situation**

3. METHODOLOGY

3.1 Introduction

The aim of the research was to seek a clearer and more definitive explanation of sustained motivation and to examine how participants' motivations change over the time they are active in one particular leisure activity. The specific activity under consideration was rockclimbing.

Data were gathered through several different methods including focus groups, survey questionnaires, participant observations and in-depth interviews. This allowed the data from different sources to be compiled through 'triangulation'.

A detailed track of the research data was maintained in order to develop a comprehensive audit trail. This permitted a constant check on the trustworthiness of the data to be maintained in terms of reliability, validity and limitations. At specific points independent observers were requested to examine some of the intermediate data and results and offer comments as part of this process.

During the process of collecting research data a constant attempt was made to understand the results and to interpret how they could possibly be explained by existing models and theories. This iterative process follows a 'modified' grounded theory approach to the development of the research.

3.2 The Research Approach

There were several research methods used for this study. It is intended in this section to describe how the individual research methods were amalgamated into an overall research approach. The basis of this amalgamation was a modified grounded theory approach discussed below.

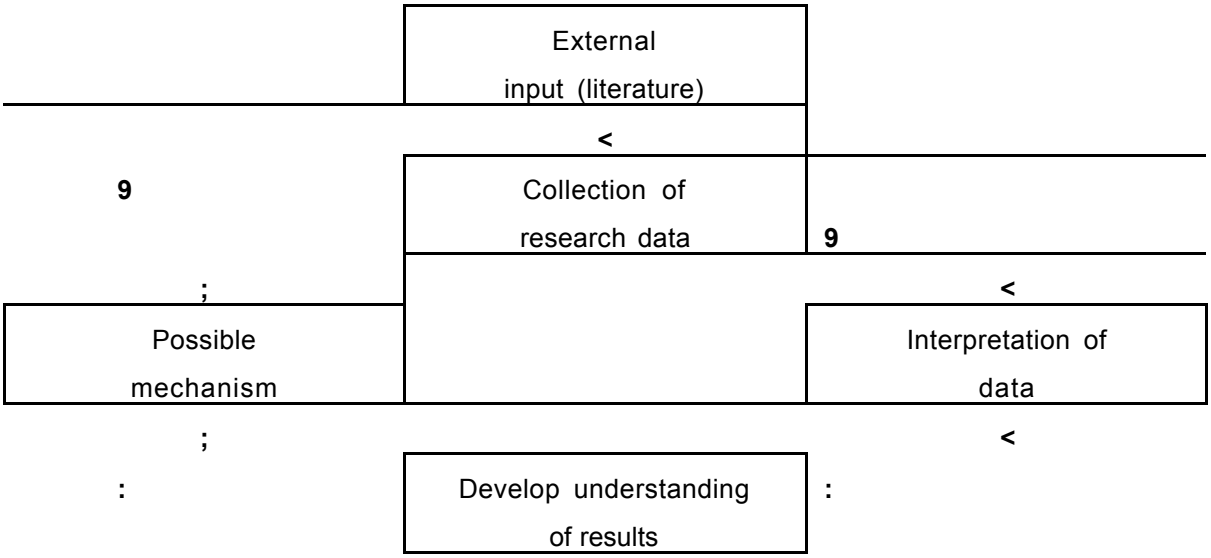
Grounded Theory

A "grounded theory is one that is inductively derived from the study of the phenomenon it represents" (Strauss and Corbin: 1990; p 23). It is a theory that is built directly on the results that are obtained from the research. This means that the developed theory is more likely to 'work' or be valid as it is based "in the concepts and theorising of the people it is about" (Jones: 1985).

The concept of grounded theory was developed by Glaser and Strauss (1967) because "such theory fits empirical situations, and is understandable to sociologists and laymen alike" (p 1). A grounded theory is inductively derived from the study that is undertaken. Results are gathered, a theory developed which is then provisionally verified by constant comparison with the data. Collection and analysis of new data allows further development of the theory. This is a constant comparative technique that is both cyclic and inductive in nature.

The inductive process consisted of: collection of research data; interpretation of the research data; and development of an understanding of what the research results meant; followed by the attempted construction of possible motivational mechanisms.

Figure 3.1 - **The Inductive Process**



During each cycle, modifications were made to the developing theory until what was felt to be a final, satisfactory theory (behavioural mechanism) was obtained. The modifications typically involved a re-examination of the theory and further research into what other theories may be available. In this way a mechanism was developed that is reliable and adequately explains the existing situation.

When appropriately developed, grounded theory will represent the reality from which the data has come and the hypotheses that are derived will be able to accurately describe existing relationships. For this reason "theory based on data can usually not be completely refuted by more data or replaced by another theory. Since it is too intimately linked to data, it is destined to last despite its inevitable modification and reformulation" (Glaser and Strauss: 1967, p 4). This implies that the validity of a grounded theory is correspondingly high.

The desire to maximise validity and to conclude with a working hypothesis that can describe the processes under investigation led to the need to develop a varied form of grounded theory. This resulted in the use of the several research methods outlined below.

Quantitative methods, by their nature, tend to be a more structured form of research. This is because, for example, in selecting questions for questionnaires there must be some idea of where the research is headed. So, in order to design the questions, form the questionnaire and interpret the responses, some preconceived notions or ideas concerning the direction of the research must exist (Denzin:1989). Quantitative techniques, however, are extremely useful and yield valuable information concerning the population under study. Scott and Godbey (1990) suggest that quantitative research should be used to give scientific legitimacy and scientific methodology to leisure research.

"Qualitative research methods are closely associated with interpretive paradigms within sociology, including ... symbolic interactionism" (Scott and Godbey: 1990, p 192). Grounded theory successfully utilises quantitative and qualitative methods by gathering empirical data, developing a theory and then relating this to the outcomes or effects and generating a "theory suited to its supposed uses" (Glasser and Strauss: 1967; p 3). The social facts can be used by the theory to explain the resulting actions.

Qualitative research is founded in symbolic interactionism (Rose: 1974; Giddens: 1989; Kerbo: 1989) and emphasises the individual and the meanings given by the individual to their (leisure) experiences. It views the individual as an active thinking unit who can construct a sense of self and develop a meaningful existence separate from the social group and group activities. When applied to the act of research, symbolic interactionism allows ideas, concepts, theory and hypotheses to develop from the data as data collection and analysis proceeds. This is in contrast to the process of initially developing a set of concepts that the research must proceed verify.

Qualitative research methods, including focus groups, in-depth interviews and participant observation, rely on the interpretation of the researcher and their subsequent analysis of situations and events. Scott and Godbey (1990) stated that "a qualitative research strategy allows the individual to be analysed" (p 198) and the individual's actions to be understood in the context in which they are undertaken.

Although qualitative research methods have some structure and form they do not need the same formal, rigid structure as those of quantitative research, such as in the questionnaire. Consequently they allow a free flow of ideas to develop. The opportunity exists for the researcher to develop ideas as the research progresses and, if necessary, modify the research process. This is the technique of grounded theory.

The aim of this research is to understand motivations for long term participation in rockclimbing. This is best done through the participants own understanding and interpretation of their motivation(s). In the terms of Strauss and Corbin "one does not begin with a theory, then prove it. Rather, one begins with an area of study and what is relevant to that area is allowed to emerge"(p 23).

Triangulation

According to Henderson (1990),

The study of leisure is complex, and thus, one perspective is not enough. More than one perspective will enhance the leisure puzzle-solving and will help to extend the scope and precision of scientific knowledge. (Henderson: 1990, p 175)

With this in mind it appeared that the most appropriate research approach would be a combination of several distinct research methods in a technique known as "triangulation". Triangulation was defined by Denzin (1978) as “the combination of methodologies in the study of the same phenomenon” (p 291).

In particular, multiple method triangulation is a research approach whereby several different research methods are brought to bare on the subject of interest. The effectiveness of triangulation lies in the fact that "triangulation purports to exploit the assets and neutralise, rather than compound, the liabilities" (Jick: 1983; p 138) of each of the individual research methods. The validity of the research results are also increased because "the combination of multiple methods in a single investigation will better enable the sociologist to forge valid propositions that carefully consider causal factors" (Denzin: 1989, p 26).

Triangulation is powerful research tool since through the use of multiple methods of observation, difficulties can be avoided that may arise from the consideration that "no single method will ever permit an investigator to develop causal propositions free of rival interpretations" (Denzin: 1989, p 25).

Jick (1983) in discussing the use of triangulation and following the example of Denzin (1978), saw triangulation as being able to "capture [a] more complete, holistic and contextual portrayal of the unit(s) under study" (p 138). Jick also felt that "triangulation may be used not only to examine the same phenomenon from multiple perspectives but also to enrich our understanding by allowing for new or deeper dimensions to emerge" (p 138). Walker (1985) stated that "triangulation can add qualification to research that would otherwise be accepted uncritically. Different methods ... complement each other" (p 16).

In applying the principles of triangulation to this study the following methods, in sequence, were used to gather data:-

Focus Groups: The use of focus groups allowed thoughts to crystallise and assisted in formulating the direction that the research should take after this initial stage. Prior to the discussions, the direction for the research had been based on the researcher's suppositions and personal preferences. However, after the group discussions a more structured approach was possible using the developed concepts and ideas.

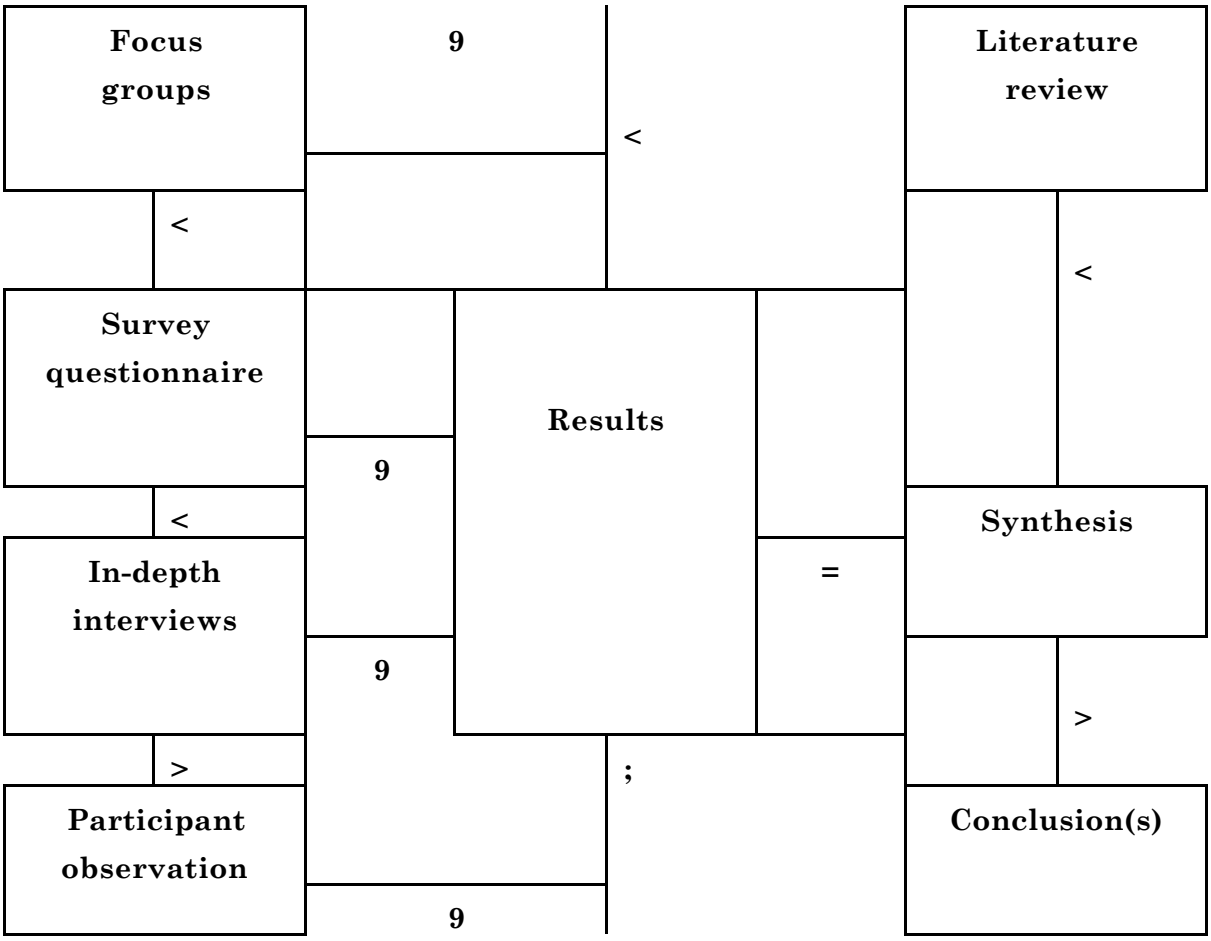
Survey Questionnaire: The use of questionnaires allowed the comments and ideas from the focus groups to be canvassed more widely.

Participant Observation: Participant observation allowed first hand observation and interpretation to be used. This process can give direct access to the actions and processes of climbing. Simultaneously thought can be given as to who is a possible candidate for the next stage of an individual in-depth interview.

Individual In-depth Interview: This process allows active climbers to be "quizzed" as to their reasons and motivations for climbing. By discussing climbing activities in a more detailed manner, particular insights may be gained or specific aspects of participation may be more specifically examined.

The research approach may be summarised in the following block diagram of Figure 3.2:-

Figure 3.2 - **Schematic Diagram of the Research Approach**



Single arrows indicate a one way process, while double arrows indicate that there are several feedback processes. Thus, the overall strategy is directed toward the development of a form of grounded theory in that concepts can evolve during the research process. This is in contrast to forming a set of precepts before the research process which must be either proven or dismissed through the results.

3.3 Focus Groups

Three focus group discussions were held with a total of seventeen participants.

> *... the advantages of focus groups are that it is a socially oriented research procedure, allows the moderator [researcher] to probe, is relatively low cost, can provide speedy results, and can use fairly large samples if several small groups are combined in data analysis. The limitations ... are that there is less control in a group interview, data are sometimes difficult to analyse, the interviewer must be carefully trained, groups may vary considerably, groups*

may be difficult to assemble and the discussion must be in an environment conducive to conversation. (Henderson: 1991, p 83)

While accepting the disadvantages outlined by Henderson, in the current case it was felt that there was a definite place for the use of focus groups. The need to train interviewers was not required as the researcher was the only interviewer; gathering small groups of climbers was not at all difficult; and inducing them to talk about climbing was also not a difficult task. Very little real variation was found between groups when groups were in operation and similarly, rigorous control of the group was found not to be necessary.

Henderson (1991) in discussing the use of focus groups, emphasised the following points that must be observed when moderating a focus group:-

I) the object is to get a homogeneous group with a common interest to discuss the relevant issues;
ii) the chosen topic must lend itself to a group discussion format;
iii) the question(s) must be open ended;
iv) the group should feel at ease to facilitate free flow of discussion;
v) there is much less control than in the one-to-one situation; and
vi) the facilitator should moderate, observe, listen, interpret, and analyse.

There are also two other important points, found through personal experience, that need to be taken into account. They are:-

vii) a group situation allows those less articulate members to express their thoughts by using the skills of others in the group; and
viii) when the facilitator can reliably predict the flow of the discussion it is almost certain that all of the main points have been covered in the group discussions and it is time to withdraw from this process, at least for a while.

The discussions were the initial phase of talking to ‘climbers about climbing’. As in any group there were those who could readily express themselves and those who, initially at least, were reluctant to commit. Typically, as the group discussed ideas proposed by other participants, all members of the group came to actively participate and declare their own ideas. In this way the focus group process facilitated the less verbal members of the group to crystallise their ideas.

The participants in the groups were chosen by asking climbers in a climbing club meeting, whether they would be interested in participating in such research. All of those who indicated their interest were approached personally and suitable times

for participation arranged. There were a few climbers who unfortunately, could not be easily accommodated. This was the limiting factor of group composition. In each group an attempt was made to try and have a range of climbing experience, ages and gender.

It is important to note that at no time during the group discussions was there an incidence of one participant dismissing another's ideas or stated motives. All participants appeared to respect the input and opinion from other participants and there was never any attempt to denigrate or cast aside different ideas and opinions.

The proceedings of the each discussion session were recorded in detailed note form while discussions were under way. Direct quotations were recorded word for word at the time. Following the focus groups the notes were expanded and consolidated. The expanded comments, like comments were then grouped and categorised. To assist with the reliability of this process, the comments and categories were then independently checked by three independent research assistants and then, where necessary, further sorting was carried out. All three of the assistants were climbers and two had been involved in the focus groups.

These notes were further analysed and a profile of those who had taken part in the discussions was created. This involved a compilation of their climbing history, reasons for starting, current motivations and general thoughts on climbing. The profile thus created was also checked by one participant from each group to enhance reliability and accuracy.

The second section of the analysis involved gathering the information that was discussed on motivations for rockclimbing. This consisted of gathering "like" statements or reasons into categories that expressed a theme or common thread. It is appropriate to discuss and detail the categories here as they were instrumental in the design of the questionnaire.

Climbers were asked to freely discuss and examine the reasons why they started climbing and why they continue to climb. The emphasis was on the motivations for continuing to climb. The discussions were free flowing but kept to the point, when necessary, by the researcher to the extent that if the points of discussion wandered too far from the main topic, some redirection was applied.

Initially many of the points discussed simply defined common concepts and jargon used by the majority of climbers.

Each session was introduced and its function explained by the researcher. To get discussion underway each participant in the group talked about their own 'climbing history' and their changes in motivation. Numbers in the groups ranged from a minimum of three to a maximum of six. Once a group relaxed into discussion this was found to be a very effective way to gain information, particularly with respect to basic motivations and future directions for the researcher to follow.

It was found that comments could be divided into broad categories and the actual questions themselves for the questionnaire were derived from comments or statements. For example, during a focus group, the comment was made that "climbing is unorthodox so [this] is some of its attraction", hence the question in the questionnaire "Do you rockclimb because it is different and unconventional?".

In order to simplify the overall picture, reasons for climbing that were very close in concept were considered to be analogous and were grouped. At the conclusion a list of approximately thirty ‘typical’ comments was compiled. Following this process the three research assistants independently examined the comments and offered their opinions on the groupings. Having independent input was found to be very helpful and resulted in a list of thirty ‘typical’ comments.

When it was found that no new information or comments were forthcoming from the analysis of the notes after the third group, it was decided to cease group discussions and move on to the next phase of the research.

The following table gives details of the times and participant numbers in focus groups:-

Table 3.1 - **Details of Focus Groups**

Group Nº	Date	Nº Participants
1	July 30th, 1992	4
2	August 06th, 1992	7
3	September 17th, 1992	6

3.4 The Survey Questionnaire

A full copy of the questionnaire used is presented in Appendix I.

Design of the Questionnaire

The use of a questionnaire meant that a wider climbing population could be reached than would otherwise be possible by the use of focus groups, participant observation and in-depth interviews. Through this technique some broad information could be gained on ethnographic and demographic data concerning climbers and their activities. A request for 'free comments' allowed inclusion of further thoughts on motivations. The comments in particular, provided a valuable source of research information.

The questionnaire was designed in three sections. In the first section the basic questions asked were age, sex, length of time climbing and income. This established some demographics of the climbing population under study. The second section allowed for open ended responses on motives for climbing and a relative indication of their importance. By placing this section as the initial part of the questionnaire it was felt that the respondent was be able to think openly about the responses and not be subject to bias by offered suggestions from the later questions.

The third section listed possible motives for climbing. The respondent was requested to indicate if this factor was a consideration in their approach to climbing. The selection of motives presented in this list was made from the comments arising out of the focus groups. This allowed an indication of how the various motives highlighted during the group discussions were distributed through the climbing population. Respondents were also requested to indicate their three most important reasons for climbing and to list any reasons that they felt had not been covered.

The information gathered in the third section of the questionnaire was not strictly intended for use in this particular research. It was felt that as there is a limited population of climbers and repeated surveys may meet with a less that enthusiastic response, thus the opportunity should be taken to gather as much data as possible. This data is for use in separate research. However, incidental use was made of this data when it was relevant to the current study.

Any open-ended comments and quotations from the survey forms were then transcribed to a central list for use during analysis and discussion as examples of participants motivations and feelings.

There was no intention to select a "representative" sample of the climbing population and there was no attempt made to statistically analyse the results of the questionnaire with the aim of "averaging" the variables and influences. Individuals sampled were, intentionally selected with the purpose of gathering particular data

or information. Thus the selection of climbers was not on a random basis. For example, initially all climbers encountered at climbing areas and other venues were requested to participate. During the latter part of the survey process, if it was felt that a particular climber or group of climbers represented a possible new or different source of information they were approached to participate.

Of particular interest to this research were climbers who had been climbing for longer periods of time as the research is oriented toward sustained motivation in relation to long term participation.

The information was presented in terms of the ranges of the particular variable of interest.

The survey form was intended to act as an extension of the focus group process and personal interview processes but in a shortened and simpler to administer form. The answers to questions were treated as they would have been if they been gathered from structured interview processes. The climbers responses to the questionnaires allowed them to directly express their own thoughts and feelings through their replies to the specific questions. They could also include any 'free' comments that they wished. These comments proved to be most useful.

Distribution of the Questionnaires

In total there were 83 responses to the questionnaires.The distribution was accomplished by two processes.

1) Around forty of the total number of questionnaires were personally handed to climbers at climbing areas, club meetings or other climbing venues. This was done on a 'chance meeting' basis. Questionnaires were simply carried around and handed out personally at the venues.

In the Sydney region a fuller description of the venues where the questionnaires were distributed is as follows: the climbing areas consisted of main cliff lines or crags frequented by climbers on weekends; bouldering areas, used on weekends and week day afternoons; and at several artificial climbing walls frequently used after work on week days for training and socialising. Club meetings were evening venues of Sydney climbers during the periods of socialisation before and after the meeting. Other climbing venues consisted of, for example, occasions when climbers were gathered for a particular event, perhaps a slide presentation, an evening in the pub or

around a campfire. In fact any opportunity was used when it arose. In total twenty venues were used, several on multiple occasions.

In most cases replies were received on the spot as most people tended to complete the forms promptly. Seven were mailed back at a later date.

When seeking out those climbers who had been actively participating in rockclimbing for a long time the sampling was biased by deliberately selecting these type of climbers.

2) The second distribution method was by mailing multiple copies of the forms to climbing friends and acquaintances in other states and overseas. Some networking was done here in that those receiving the questionnaires were asked if they could hand copies on to other climbers.

In both cases a modified form of a ‘snowball’ technique was employed. This is where climbers could pass a copy of the questionnaire on to their friends and acquaintances. This was often the case when a survey form was mailed to an interstate or overseas climber. A larger population was reached in this way.

3.5 Participant Observation

"Participant observation is a commitment to adopt the perspective of those studied by sharing in their day-to-day experience" (Denzin: 1989, p 156). Henderson (1991, p 53) presented a comprehensive over-view on the advantages and disadvantages of participant observation and it was decided that some form of participant observation would be of advantage in the current research.

Denzin (1989, p 162) discussed the different roles that can be adopted by the observer during the course of observation. The participant observer can either fully inform participants of the circumstances of the study, of why the observer is there and what the objectives of the study are; or attempt to become a "normal" member of the group under study and later record observations at the conclusion of the observing period.

Participant observation allowed a form of ‘informal interview’ to be undertaken and for interactions to be noted. This resulted in some crucial insights and an expansion of the perception of the overall view of rockclimbers. The role used was that of Denzin's `complete participant' (p 162). There was little opportunity for note taking

in the field during activities. Therefore, notes were written after field excursions and kept in a research notebook.

In this current study, a combination of the two approaches was possible. As the researcher was already an established member of the climbing community under study, it was possible to observe as a normal member of the group. However, many members knew that the project was in progress, having taken part in the focus groups or responded to questionnaires. So while observations were not strictly anonymous, the researcher was an established, legitimate member of the group and hence the observations were reasonably disconnected to the research project.

Throughout the study the researcher observed and participated in the activity and made observations. This proved to be a valuable technique and extended the information gained through personal interviews. Some comments and insights were able to be gained during the practice of climbing that might not otherwise arise during more formal discussions.

One of the main criticisms levelled at participant observation (Denzin : p 171) is that the sample size is necessarily limited and that this can lead to a lack of generality of the results. The researcher must be aware of these.
Since the objective is to present qualitative information, the opportunities presented by participant observation to collect first hand data are valuable. Subtle questions can be asked and points of view clarified.

Denzin noted that participant observation is "well suited to the analysis of complex forms in interaction" (p 180) of which rockclimbing is an excellent example.

Table 3.2 - **Summary of Participant Observations**

Location	Date
Mount Arapiles, VIC	3rd - 8th April, 1994
Mt Piddington, Blue Mountains, NSW	28th May, 1994
Mt Kaputar, NSW	16th - 22nd October, 1994
Cosmic County, Blue Mountains, NSW	4th February, 1995
Baroomba Rocks, ACT	30th September - 2nd October, 1995
Moonarie, Flinders Ranges, SA Buckaringa, SA	29th October to 3rd November, 1995

3.6 In-Depth Interviews

The final method used was the in-depth interview. Howe (1988) concluded that the "common thread in qualitative interviewing is that the interviewees express their own understanding and perspective in their own terminology ...[and]... the interviewer 'learns' the interviewee's language in order to comprehend their perceptions of their experiences as they express them" (p 320). One particular advantage in the present case was that the interviewer was already familiar with the 'language' of the interviewees.

To quote Henderson (1991) "interviewing is the best method for pursuing a subject in depth, operating in a discovery mode, and creating interaction with an individual" (p 71). It is the next best thing to being there.

It was possible to arrange a series of interviews with a group of climbers to gain insights into motivations and personal climbing histories. The interviews lasted between 45 minutes to one hour. The interviews were thus conducted on an informal, friendly basis with the minimum of structure. Several topics were covered during each particular interview, these covered the same general area as the questions posed in the questionnaire. The topics were:-

- How regularly do you climb?
- Where do you climb?
- Why did you start climbing?
- Why do you climb now?
- Who do you climb with?
- How does climbing fit into your lifestyle?
- What do you look for in climbing?

The climbers selected for interviews were those who were considered by their activity and declaired interest to have a long term commitment to rockclimbing.

In total, ten interviews were conducted over the period September 1994 to April 1995. The analysis of the interview material was carried out using "thick description [and] thick interpretation" (Denzin: 1989, p 159). Thick descriptions are interpretive of the subject's experience and interactions and attempt "to rescue the meanings, actions, and feelings that are present in an interaction experience" (p 159). By utilising a thick description, a thick interpretation can then be used to develop a sense of logic and interpretation of actions and experiences.

Notes of the observations proceedings were made after, and when possible during, the activities. The notes were later examined utilising similar methods to the focus group analysis.

As with participant observation there is a limited sample size and hence a possible lack of generality of some results. However, it is reasonably felt that the comments offered by the participants do represent the wide spectrum of long term climbers in the community.

3.7 Trustworthiness of the Research - Reliability, Validity, Limitations and the Audit Trail

Henderson (1991) noted that often participants do not always understand their motives and actions. Through the intervention of a researcher, participants can arrive at insights that were previously unsuspected. The reliability and validity of those insights is something that must be assessed by the interviewer (p 135). Reliability is the degree to which the study at hand can be repeated and produce similar results. Validity is how well the results obtained represent or model the true situation.

By using several research methods (triangulation) both reliability and validity can be improved. Research "methods can no longer be viewed as 'atheoretical' tools" (Denzin: 1989, p 4). Denzin supports the criterion of validity by stating that "the combination of multiple methods in a single investigation will better enable the sociologist to forge valid propositions that carefully consider relevant causal factors" (p 26).

The triangulation process draws information from several different and varied approaches. What is not covered by one method will be gathered by the next and what is missed by one method will be included by the next. For example, focus groups and personal in-depth interviews can only, by their nature, involve a limited number of the population. Questionnaires on the other hand, while not giving the depth of information of a group discussion or the particular detail of an in-depth interview, can provide a more broad-spectrum view of the sample population. In this research, the questionnaires supplied most of the information on the demographics of the population, while interviews and discussions gave depth and detail. This is the “between method” of triangulation that Jick (1983) describes as testing "the degree of external validity" (p 137) of the model under development.

The use of focus group discussion is an attempt to minimise the effect of the researcher/interviewer and hence increase validity. During peer group discussions ideas can be developed by the group with minimal effect from the presence of the researcher. In a one-on-one interview it takes great care and experience not to influence the participant. In a group discussion this effect can be significantly reduced by the researcher assuming a role with little other than guiding the discussion when the group deviates too markedly from the topic.

Reliability

A reliable measurement is one that has a small error and will not fluctuate *on an ad hoc basis* from one measurement to the next. In social research a reliable instrument will tell the same story from similar circumstances. A reliable measure will "maintain a consistent account and does not give different versions from one hour to the next" (Kidder and Judd: 1986, p 45).

The reliability of a scientific study is the ability of that study to be repeated and produce the same results, allowing for some small margin of measurement or experimental error. Several recommended ways of ensuring the reliability of data are: clear documentation of the methodology employed; the use of triangulation; "replication or prolonged engagement within the study" (Henderson: 1991, p 137); and having external, independent 'auditor' check the interpretation of data. The use of clear and full documentation produces a clear "audit trail" (Henderson: 1991, p 137) through which an independent auditor can follow the interpretation of the data and the method by which the conclusions were reached. This will then result in others being able to reach the same conclusions as the researcher.

This research has: presented clear documentation of the methodology employed throughout each phase of the study; used a number of different survey methods in order to increase the validity of the results through triangulation; taken place over an extended time period and gathered data from a range of respondents in order to represent the existing climbing community; and used several independent auditors to check the interpretation of the results and verify the intermediate conclusions reached. This results in a clear and positive audit trail through which conclusions can be verified.

Validity

Validity refers to the 'truthfulness' of the data and how well that data and the accompanying conclusions represent the actual circumstances or real world. The question of validity of the data is important as invalid results indicate a bias in the

research process. By using triangulation, or dissimilar instruments to measure the same effect, validity is increased, provided, of course, that the instruments were all measuring the same, desired effect. "The more dissimilar two methods of measurement are, the more meaningful a correlation between them is because the common variance that reflects the underlying variable rather than shared error or irrelevant components" (Kidder and Judd; 1986, p 53)

Henderson (1991, p 136) suggests that the problem of validity occurs with qualitative techniques such as participant observation (or personal interviews) where the sample size is necessarily small compared to quantitative techniques such as the use of questionnaires. The difficulties relate to the transferability or generalizability of the results to the broader population. The use of "thick descriptions of the data will make judgements about transferability easier" (p 136). In the current research both thick descriptions and questionnaires were utilised. Qualitative and quantitative data are both necessary and should be "used as supplements, as mutual verification and, most important ... as different forms of data on the same subject, which, when compared, will each generate theory" (Glaser and Strauss: 1967, p 18).

A grounded theory approach was utilised with the aim of producing reliable, valid results. A grounded approach is most suitable because "its systematic techniques and procedures of analysis enable the researcher to develop a substantive theory that meets the criteria for doing 'good' science: significance, theory-observation compatibility, generalizability, reproducibility, precision, rigour, and verification" (Strauss and Corbin: 1991, p 31). While it is difficult to separate the 'trustworthy processes' of reliability and validity, and the associated qualities of credibility, dependability, transferability and confirmability they are necessarily all closely interrelated in the research process. While there are no set rules to follow, it is the integrity of the total research approach that ensures that quality research is carried out.

Limitations

In any study, such as this, some limitations always exist: limits to the data that can be collected; limits to the interpretation of the data; and limits to the applicability of the conclusions drawn from that data. Possible limitations come from several sources as discussed below.

- Limits to the data always exist because the researcher can only sample a finite number of the total population under study. These are practical limits arising from time and resources. With this in mind, the findings are strictly

only applicable to the sampled group. However, some generalisations can usually be made.

- Through the utilisation of a grounded theory technique there is the inherent difficulty of a lack of definite structure to the research method. Due to the cyclic nature of the process there is a re-travelling of ground previously covered and a drawing in of new sources of information and ideas. There are no established rules that can be rigorously followed.

- There is the inherent difficulty of the interpretation of the language or jargon, as used by any 'expert' group. This is more of a difficulty in the responses to questionnaires more so than during focus groups or personal interviews where any doubts can be cleared up during the interview. This overall effect was minimised through the fact that the researcher is a climber and is familiar with the jargon and the context in which the responses were given.

- The interest(s) of the researcher must have some influence on the direction of the study. Even with the most judicious care and awareness the possibility of bias cannot be excluded.

- There is also a possibility of bias when the respondents know that they are being studied. The use of participant observation, where the observer is an active participant is an opportunity to help reduce this effect even if only to a small extent.

- The limits to the resources, particularly time, that can be put into such a study means that the population that can be reached will not necessarily be as extensive as may be desirable.

The Audit Trail

As explained in the detail of this chapter, the results, presented in the next chapter, can be clearly traced through the sequence of events from their final inclusion in the analysis back to their original source. This presents a clear and well documented trail of the research process that allows an auditing function to be performed. It represents an ‘audit trail’. The schematic diagram of the research approach, Figure 3.2 (p 74), shows the sequence of the research processes and the processing of the data in a simplified form. Figure 3.1 (p 69) showed the inductive process of the grounded approach.

In brief, the chronological sequence of events in the audit trail consists of the following:-

1) The focus groups were the starting point of the research process. They provided useful comments and information relating to attitudes and behaviour. At this stage the introduction of external research assistants was used to audit the results. Comments from the focus groups were used to help construct the questionnaire.

2) The questionnaires increased the sample population with 83 individual respondents. This tool provided information on attitudes, behaviour and demographic data along with a wealth of comprehensive comments.

3) Participant observations allowed a direct observation of behaviour and, to some extent, attitudes. More comments were also added to the comment pool.

4) The brief use of some extracts from the extensive range of climbing literature gave the opportunity to compare comments and attitudes from further climbing sources.

5) The in-depth interviews permitted a closer analysis of the individual climber, supplying deeper information on attitudes and behaviour, comments for the comment pool and a small addition to the demographic data.

Independent research assistants were used to varying degrees to check conclusions drawn from the data in stages 1), 3) and 5). All paths of the data used are well documented for the audit trail.

3.8 Summary

This chapter detailed the methodology used to gather data for the study. From the discussions it is illustrated that through the use of a variety of research methods, each of which have their particular advantages and disadvantages, a reasonable perspective of the motivations for long term participation in rockclimbing has been gathered.

By combining the techniques of focus groups, a survey questionnaire, participant observation and in-depth interviews the difficulties and possible faults that arise through the use of one single research technique are countered by the use of another. Thus the weaknesses of one method are supported by the strengths of the others: the strategy of triangulation

The results gathered were tested against existing theories and models of participation in order to test the applicability and relevance of the existing theories. The weaknesses of existing explanations were examined and through an iterative process modifications were developed in order to create a broader model. This is a form of modified grounded theory where a hypothesis is gradually formulated and subsequently modified in conjunction with the gathering of more data. The starting point of the hypothesis was taken from existing theories. In the true sense of a grounded approach the final interpretation should give the best match to the research data.

Being a study that wishes to understand the individual and the individual's interpretation of their rockclimbing experience, the emphasis has been placed on qualitative methodology. There has been no attempt to operationalise (see McIntyre: 1989) either individual or group participation in rockclimbing.

As a consequence, the results of the study reflect the methods employed. The interpretation of the data is in terms of the quality of the climber's experience. An interpretation of the data has been applied to give a different perspective from that found by other studies in the literature. The methodology applied has allowed an extension to the understanding of the motivations for rockclimbing.

The reliability and validity of the research methods has been addressed as has been the possible limitations of the overall research tool. To further increase the validity and reliability of the research a clear audit trail has been laid allowing data to be tracked from it’s source to the final analysis.

The methodology employed for this study is capable of producing useful data that can extend our knowledge of the motivations involved in long term rockclimbing and hence our understanding of sustained motivation.

4. RESULTS AND ANALYSIS

4.1 Introduction

The demographic data gathered from the questionnaires is presented initially in order to give a broad picture of the population from which the information was gathered. This information is presented to indicate the diversity of the background of those involved in climbing and is presented in terms of ranges to better illustrate this diversity. A more detailed presentation follows which compares the existing survey with a reader survey conducted by a commercial magazine. This comparison is useful as the results of both surveys mirror each other in most instances and serve as a useful point of comparison and reference.

The analysis then proceeds to present the comments and remarks arising from the focus groups, surveys, individual interviews and climbing literature. A broad discussion of this information is then presented. In conclusion one of the difficulties of interpreting the data through the use of existing theories is then highlighted.

4.2 The Climber Survey

All climbers who were personally approached and requested to complete a questionnaire responded positively. The questionnaires were readily completed and returned promptly.

The total number of responses to the questionnaire was 83. The majority of the respondents, 72%[3], were from NSW and the ACT while 5% were from interstate. A number of responses, 22%, came from the US and UK climbing communities. In particular there were a number of climbers from the US sample with over 25 years climbing experience, who gave some interesting insights and very useful comments on motivations. The responses from overseas climbers were similar to those of local climbers, which suggests that the data may be generalizable beyond the Australian context. Table 4.1 presents a breakup of the distribution.

The range of years actively involved in climbing varied from a few months to over forty years. It appeared that the longer a climber had been active, the more likely they were to give extended comments. Arguably this may be interpreted as an expression of the individuals increased self confidence and belief in their own motives that have developed over many years of active participation.

From the demographic questions asked in the questionnaires a broad profile of the respondents was constructed. This indicates some of the typical characteristics of rockclimbers.

As the results are presented, the opportunity is taken to compare these with a survey conducted by Baxter (1993), the Editor of "Rock" Magazine, and data from the Australian Bureau of Statistics (ABS). "Rock" is currently the longest surviving commercial Australian magazine focusing on climbing, with a particular emphasis on rockclimbing. In early 1993 "Rock" conducted a reader survey. Eighteen hundred questionnaires were distributed throughout Australia, and overseas and three hundred replies (16%) were returned and analysed. While the form of questions posed in that survey were different to those considered in the current research, many of the results are useful for comparative purposes.

Sample Distribution

The "Rock" sample consisted of almost all Australian residents with only 1% being from overseas locations. This compares to 19% of overseas climbers in the current survey. Also, of the overseas respondents in the current survey, seven of the 15 were female (almost 50%). This is where the larger female numbers arose in the current survey as compared to the "Rock" survey.

Table 4.1 - **Sample Distribution**

Issue	Current Research % of sample	ROCK Magazine % of sample
Queensland	1	12
NSW & ACT	72	40
VIC	1	29
TAS	1	4
SA	1	8
WA	1	4
NT	0	2
O/SEAS (US & UK)	22	1
Sample Size = 83	83	300

Age and Gender Distribution

Gender: Twenty four percent of the sample were female and 76% were male.

The "Rock" survey found that only 7% of its readers were female, much less than the 24% from the questionnaires of the current survey. This difference is perhaps explained by the fact that when climbers were being selected in person at climbing venues the opinion of women climbers was actively sought which may have led to some bias. However, as discussed in the next section, there was a high proportion of female rockclimbers in the overseas representation from the current survey which was not under the control of the researcher.

Age: The current survey sampled climbers who were able to be reached at the venues chosen. Although, because of the difference in questions asked, it is difficult to draw precise comparisons, only 13% of the climbers responding to this research had been climbing for three years or less, in the "Rock" survey the figure was 51%. Hence the current survey has age related biases toward longer term climbers. "Rock" was surveying all readers regardless of age or length of time climbing. This is also illustrated in the Table below on the "Comparison of Gender and Age Distribution".

Table 4.2 - **Comparison of Gender and Age Distribution**

Issue	Current Research % of sample	ROCK Magazine % of sample
Gender		
Male	76	93
Female	24	7
Age (years)		
Less than 15	0	1
15 - 19	0	12
20 - 24	8	26
25 - 29	9	18
30 - 34	22	18
35 - 39	18	15
40 - 44	15	6
45 - 49	9	3
50 - 54	13	)
55 - 60	4	)1
greater than 60	1	)
Sample Size	83	300

Income, Qualifications and Employment

The range of incomes stated is similar to that which exists over the general community. The Australian Bureau of Statistics (1994) figures for income indicate that the upper boundary of annual incomes for the first, second, third and fourth quintile groups are $10.4k, $18.1k, $27.5k and $43.9K respectively (p 251). There is no available figure for the fifth quintile group of the general population. Incomes from the current survey ranged from those who were full time students and had very little direct income; those who work either part time in permanent part time positions or those who work on an "as required" basis (eg instructing or guiding); to those who had career positions. Nineteen percent of respondents did not wish to indicate their income.

Thirteen percent of respondents indicated that they had an income greater than $60k per annum. This figure corresponds to the order of magnitude expected from the ABS figures (p 251) The upper end of the income spectrum from the survey was filled by an individual who receives an income "package" of approximately $100k per annum. This includes many "fringe benefits" such as a company supplied and maintained car.

Many of the climbers surveyed (69%) indicated that they were involved in or had received their initial training in "technical" areas such as engineering, science or the trades. This was not a specific question put to individuals. The breakdown of figures is: 69% in technical areas; 24% in non-technical areas; and 7% unspecified. As the length of participation increased so did the trend toward a technical background appear to increase. For example for those climbing for more than 20 years the above ratios were; 80% technical; 20% non-technical; and none unspecified.

In the current survey, 74% of climbers had completed some form of post-school qualifications. The "Rock" survey showed a corresponding figure of 55%. Both of these figures are a good deal higher than that of 39% given for the general population by the Australian Bureau of Statistics(1994). Of the general population, according to the Bureau, 36% did not complete secondary education (p 326). The two surveys both put this figure at only 4%, much less than the ABS figure. This result reflects the frequently noted comment from the questionnaires that many participants had an introduction to rockclimbing while studying at a tertiary institution.

By far the majority of climbers surveyed (69%) had been through some form of tertiary or university education, many with graduate degrees or diplomas. Very few

(4%) had left school at the minimum legal age and received only the most basic education. This is in accordance with the findings of M^{c}Kay (1991) who, using Australian data, found that as the level of education in the population increased from just completed primary up to tertiary level then so did the participation rate in informal sporting activities. A similar correlation also exists between exercise/keep fit activities and educational achievement (p 10). M^{c}Kay notes that this also holds true for Canada and the United States.

M^{c}Kay also found that there was a demonstrated "positive and linear relationship between income and participation in informal sport" (p 7) with those on incomes of $30k+ having a participation rate of around 40%.

Many climbers had progressed into management/senior management positions at this stage of their careers (12%).

"Rock" found that 55% of their sample had either trade qualifications or professional qualifications including a degree or diploma. A further 17% were tertiary students. This correlates with the finding that most climbers seem to come from a technical or scientific background and are highly likely to have tertiary/university qualifications. ("Rock" specifically asked this question)

Table 4.3 - **Income**

Issue	Current Research % of sample	ROCK Magazine % of sample
Income		
Less that $10k	8	24
$10k - $20k	8	8
$20k - $30k	12	19
$30k - $40k	18	21
$40k - $50k	16	15
$50k - $60k	5	5
Greater that $60K	13	6
Did not respond	19	-
Sample Size	83	300

Table 4.4 - **Qualifications and Employment**

Issue	Current Research % of sample	Rock Magazine % of sample
Qualifications		
At school	0	6
Some secondary	4	4
Finished secondary	8	9
Presently tertiary	2	17
Some tertiary	11	7
Degree/Diploma	58	42
Trade/Professional	16	13
Other	0	2
Current employment status		
Unemployed	4	2
Student	6	24
Clerical/Sales	12	4
Labourer/Trade	12	12
Business proprietor/ Self employed	11	8
Manager/Executive	12	12
Professional	43	36
Retired	0	1
Other	0	6
Sample Size	83	300

Length of Time Actively Involved in Climbing

The question "How long have you been climbing?" yielded a range of time from only a few months to over 40 years. "Rock" Magazine did not specifically ask the question "how long have you been climbing?" "Rock" simply asked the question "How long have you been reading this magazine?" Thus differences between the two surveys do exist and caution must be exercised when attempting any comparisons.

Table 4.5 - **Length of Time Actively Involved in Climbing and Length of Time Reading "Rock"**

Issue	Current Research % of sample	Rock Magazine % of sample
Length of time climbing/ reading rock magazine	2	14
Less than one year	7	19
1 - 2 years	4	18
2 - 3 years	87	42
more than 3 years (greater than 5 years)	(80)	-
1 - 5 years	19	-
6 - 10 years	27	-
11 - 15 years	12	-
16 - 20 years	8	-
21 - 25 years	10	-
26 - 30 years	13	-
31 - 35 years	5	-
36 - 40 years	4	-
46 - 50 years	1	-
Sample Size	83	300

It should be noted that the length of time actively involved in climbing is never taken as being equivalent to the length of time from the individual's first climb. These may be two very different lenghts of time. In the current research the difficulty of establishing the correct relationship between the length of time climbing and the length of time since the individual did their first climb was addressed in several ways, so that what could be considered a good subjective judgement could be

made. This was a particularly important point concerning long term climbers as it is from them that the long term participation data comes. When sampling long term climbers almost all were known by the researcher and their continued, long term participation went without question. They were rockclimbers, known to the climbing community for their continued interest. The sampling of long term climbers was biased in this respect.

Other specific questions posed also addressed the respondents participation level. Such questions as “How often do you climb?”, “Where do you mainly climb?”, Would you call yourself a rockclimber?”, along with the respondents comments can be used to guage the degree of serious interest in rockclimbing.

Age, Gender and Climbing Experience

The majority of the respondents were male, 76% (61), with 24% (19) female. Of these, only three females (4%) had been rockclimbing for more than 10 years compared to almost 48% (38) of the males. In total, just over 51% (41) of the sample had been involved in rockclimbing for over ten years; 36% for greater than 20 years; and almost 9% for greater than 30 years. One respondent had been rockclimbing for 41 years and another for 40 years. Only one female had been climbing for more than 20 years (23 years).

This would seem to be typical of the contemporary climbing population where anecdotal evidence suggests that female participation has been increasing in rockclimbing over the past decade or so. Traditionally, rockclimbing was seen as a male activity with female 'participation' being limited to girlfriends or wives as watchers on the periphery (Sydney Rockclimbing Club records and Watson: 1994).

The range in ages of respondents was from 21 to 63 years. The oldest female was 53 years old and had taken up rockclimbing in her mid forties after many years of bushwalking. The oldest male was 63 years and had been climbing for just over 40 years.

While age did not directly correlate with years of climbing experience there appeared to be a more thoughtful approach to the subject, of meaning and motivation by those who started climbing at an older age. One respondent was a medical specialist who had been climbing for ten years after commencing in his mid forties. He and his wife have taken to the activity with a degree of passion normally expected of people in their 20s. They have an enthusiasm and dedication to rockclimbing that would not usually be anticipated in people in their mid 50s

(see Iso-Ahola: 1980, p.162)

The only correlation of rockclimbing with age is the obvious one that the longer one has climbed then the older one must be. But just because an individual is an "older" rockclimber does not mean that they have been climbing for a long while, whereas a climber in his mid-twenties may have been climbing for a considerable time. One respondent had commenced 'serious climbing' when he was twelve years old.

One particular relationship of note from this research was that as respondents indicated that they had been climbing for a longer time the chances that they worked in a professional or managerial position increased. This also correlated with the probability that they had experienced some tertiary education or actually held a degree or diploma.

Survey Sample

The results of the survey indicate that comments were received from a broad spectrum of the climbing population. Of the sample, 41% indicated that they had been climbing for fifteen years or more and 48% indicated that they had been climbing for less than ten years. Fifteen years was taken as the length of time that indicated that a climber had a sustained interest in rockclimbing.

It should be noted here that it is very difficult to define an individual who is committed to a particular activity in terms of length time of participation. Stebbins (1979), when studying amateurs in several activities refrained from specifying a time constraint, but looked at rather an amateur "as one who has a distinct attitude structure" (p 44). While this may be hard to define precisely, Stebbins indicated that a period of between ten to fifteen years active participation would engender this "attitude structure". This gives a reasonable latitude for cases of slower development.

The comparison of the survey figures with those of “Rock” indicate that a similar population was reached and that the results should be a good indicator of the attitudes of climbers. The fact that the comparison of the results with the "Rock" Magazine reader survey indicated that figures were in the same order of magnitude, taking into account the respective obvious biases toward sampling, also indicates the reliability of the current survey.

4.3 Focus Groups

The individuals who participated in the focus groups were selected for several reasons.

1) They were approached as it was felt that they would have a useful and valid point of view to offer as active rockclimbers;

2) They offered a wide range of age from the early 20s to mid 50s. This offered a balanced view with respect to age;

3) They offered a large range of experience in terms of the number of years they had been rockclimbing. Some had been climbing for a short time and some for many years;

4) There were five female participants out of a total of seventeen participants overall, a ratio of approximately 30%. This mirrors the ratio of females to males who responded to the questionnaire which was 24% female to 76% male. In reality it was difficult to find more females to take part.

There were two main outcomes from the focus group sessions. These were, firstly a collection of comments reflecting participants' motives and perspective on rockclimbing; and, secondly, a distillation of these attitudes into a brief summary of each participant. This summary created a profile of the individual in relation to rockclimbing.

As described in the chapter on Methodology, focus group discussions were recorded, summarised and a profile of each participant developed and verified. These profiles could then be considered to accurately represent the attitudes and opinions of the participants.

What follows are the profiles of six typical focus group participants. These typical profiles and comments illustrate the sort of information that was gathered from the group sessions. The information gathered in this way was used for analysis and interpretation along with the results of the survey and the interviews.

Sample Profiles

Kevin - age 54, climbing for 35 years

Enjoys the movement of climbing over rock; enjoys the exploration of either new routes or areas, particularly overseas travel. He is now climbing harder than he did when he was younger. This is because he was inspired by

climbers older than himself. He sees himself climbing for as long as he is physically able.

He enjoys all forms of climbing on artificial walls as well as the "real thing". Primarily he enjoys 'adventure climbing' as he likes the outdoors in the bush and being up high. He likes the artistic idea of being able to 'see' or 'envisage' a route up a wall. He feels that most climbers don't push to the limit where if something goes wrong they will die. Most climbers who climb with this attitude do not climb for long and seem to 'disappear'. He finds people (ie climbers) interesting.

As a young person he did not enjoy ball sports and he does not like sports where rules are used to win the game rather than using skill (eg sailing). Climbing fits with his life style as it's casual and one can decide at the last minute whether to go to the mountains climbing or not.

Greg - age 33, climbing for 10 years

He really emphasised the 'adrenaline rush' that made climbing enjoyable to him. He likes being on rock and not on a 'plastic wall' (ie an artificial climbing wall) as he feels the need for 'natural surroundings' and to gain exposure. Likes the feeling of hard moves a long way from the last piece of protection. New routes and new areas keep up the interest in climbing. He has no interest in climbing competitions as he does not enjoy the competitive atmosphere. He enjoys travelling to new areas and it's a good way to see the world and meet new people.

He likes the 'instant exposure' that's gained from climbing on the sea cliffs. Not keen on mountaineering as one cannot get out of danger fast enough and he does not like the objective dangers. Does not like abseiling. Finds it difficult to relate to non-climbers in a social setting.

Likes climbing as it develops the spatial sense of your own body, a sense of 'centre of gravity' is required. Finds climbing 'addictive'. He emphasised the skill required in placing 'runners' (ie protection) - this is why climbing primarily appeals to 'technical' types. One needs problem solving ability.

Ross - age 45, climbing for 28 years

He enjoys the adventure, he used to enjoy the 'adrenaline rush'. Likes moving over rock, setting objectives and attaining them. Does not like competition but enjoys the challenge of climbing. Enjoys the technical problem of 'setting protection'. Breaks down goals in climbing into sub-goals. Climbing fits in well with his family situation and he likes the outdoors. He has tried other sports such as golf and sailing but does not like the commitment of team or organised sports - likes the freedom of climbing

Keeps fit in order to climb. Likes visiting new areas and doing new routes and the social contact. Finds it a challenge to keep in the area where you are in control (edgework? - Editor)

People have a lack of understanding of climbers and climbing and over estimate the risks. Climbing takes the mind off work as it takes concentration and one needs to forget all else. His reasons for climbing have changed from when he started. He tried sailing for a while but did not like people using the rules to win rather than their skills. Finds it awkward to explain in a social or business setting that he climbs - due to lack of community understanding? By not following regular sports (eg football, cricket) can be left out in social situations and business meetings.

Helen - age 31. climbing for 5 years

Came to climbing through friends made while trekking in Nepal. In England went on outdoor activities with a friend who was a climbing instructor. Enjoys the physical and mental challenge and the sense of achievement in improving skill. Enjoys the social contact of friends, being in the bush and getting away from the weekly routine. Fits well with her family lifestyle (husband also climbs).

You can spend the day either 'pottering' or 'pushing' depending on feelings of the day. Some people find an activity that 'turns them on'. Uses climbing to keep fit and if climbing at a high level one can keep very fit.

It' not easy to climb with 'just anybody', likes to make a few close climbing partners.

Barbara age 54, climbing for 12 years

Enjoys climbing for the exercise for the whole body. Sees bouldering as training for trips away (overseas) and does not mind going to the mountains and repeating climbs as this is the chance to stay supple and 'in shape'. Staying fit is important. Likes being in the bush and the wilderness. Started climbing with husband and friends but now possibly enjoys climbing more than he does.

The need to concentrate is important, one cannot just drift off into a dream (this compares to "flow"). Time can pass incredibly rapidly with no realisation of the absolute time of day. "Climbing is the chance to meet with people from 16 to 60".

Enjoys the challenge of new cliffs and new areas - going to familiar areas is an opportunity to train and keep fit for new adventures. Likes being able to 'read the rock' and new moves ie the physical movement. It's better to be doing old climbs than none at all. The more you climb the more stimulation you get to improve climbing style.

Scott - age 28, climbing for 13 years

He's found something that he's good at and can do well. Not good at group sports nor did he enjoy them. Finds climbing fulfilling. When he drifted away from climbing for a few years he felt a bit lost and unfulfilled in going to the pub, having girlfriends, etc, so he looked back to climbing to give him that feeling of completeness.

Enjoys training for climbing and will go climbing no matter what the weather. Does not mind repeating climbs to see if he can do it a different way. Goes out even in inclement weather so as not to miss out. He can relax when he's in the company of climbers and enjoys the whole scene. He can relate to climbers. Very much into sport climbing (ie on artificial walls) and training. Feels guilty if not climbing on the weekend. Is constantly learning.

4.4 Analysis of Comments

(*From questionnaires, focus groups, interviews and participant observation*)

This section presents an analysis of comments gathered from all sources, focus groups, surveys, interviews and participant observation. While not all of the questions in the questionnaire survey were open ended, many were and respondents took the opportunity to express their opinions with comments. All of the comments have been considered in this one section rather than separately. This was seen as a natural approach as the comments are similar data, independent of the method of collection.

All of the comments were accurately recorded during interviews and focus groups. Written comments, particularly the longer ones, came directly from the survey questionnaire forms. As part of the audit process all comments can be traced back to their original source.

The comments are grouped as 'like' comments, comments with similar wording. All comments and responses from the questionnaire were unprompted and arose from the opportunity given to respondents for 'comment'. Comments were 'free flowing' and expressed a range of feelings and impressions. They have been treated as a single group for the purposes of this research.

There are four basic concepts that seem to be able to be used to categorise the responses: the physical challenge; the natural environment; the cerebral aspects; and the social contact. The physical challenge includes movement, action, fitness, place, location, physical abilities and physical limitations. The natural environment

covers all aspects of being in the outdoors and the wilderness experience. The cerebral aspects include spiritual thoughts, feelings, stimulation, psychological abilities and psychological limitations. The social contact includes interacting with friends, colleagues, family and other climbers. The four components often combine in specific ways to form the higher level of themes discussed. However, it is important not to simply break all responses or comments into only these four elements as that would distort the interpretation.

The comments have thus been divided into themes for the purposes of analysis. There is, to some degree, an overlap between some of the categories. However, for the objectives of this analysis this is not particularly significant.

For example the concept of wilderness contains elements of both physical and mental themes as well as being a concept in its own right. That is, wilderness must have a distinct physical location and definite physical properties along with possessing a certain philosophical or mental component in order to endow the physical location with a specific quality of wilderness.

The concept of adventure also contains elements of both the physical and the mental. Physical in the sense that going to a new or possibly remote or dangerous location represents an adventure. However, for some simply stepping outside the bounds of their daily or normal behaviour (their "comfort zone", see Harris and Harris, 1995) represents, for them, an adventure as they are challenging their accepted mode of behaviour.

The themes were developed initially after examining comments from the focus groups. Following the principles of a grounded theory the themes changed and were modified as the results were gathered. The process was assisted by having three research assistants, two climbers and one non-climber, independently examine a summary of the comments and produce a similar theme list. This ensured a higher degree of inter-coder reliability and reinforces the concept and status of an audit trail. The final result gave rise to the main themes discussed below.

Enjoyment

It was apparent that the longer individuals have been seriously commited to climbing, the more they express their enjoyment of climbing. In some respects this could be claimed to be self obvious - if you don't enjoy an activity then why would you keep doing it? This was one of the main comments offered by all respondents. They stated the obvious fact that they found climbing enjoyable (and relaxing)

The interpretation of enjoyment on the "Hedonic Scale" as discussed in Reversal Theory is “pleasant” (see Apter: 1989, p 11). To experience pleasant feelings then, with either low or high arousal levels, the predominant states must be either relaxation or excitement. Certainly if the overall experience of an activity was either remembered as boring or as a period of high anxiety then the word enjoyment would not be used.

The expression of enjoyment is used to describe other qualities such as "enjoy the physical activity", "enjoy the social aspects" or "enjoyment of the physical activity". "People vary experiences within those activities they feel most capable of carrying out and which result in the most enjoyment" (Iso-Ahola: 1980, p 177).

Harris and Harris found that

individuals who are involved in physical activity have more or less taken this personal involvement for granted; they have not asked "why". They enjoy it, they have fun, and they generally do not understand why everyone else does not have the same response.(Harris and Harris: 1995, p 34)

However,

enjoyment may be the motivating factor but other perceived benefits must occur for the involvement to persist. (Harris and Harris: 1995, p 47)

Movement and Physical Activity

There was an indication of the enjoyment of the "physicalness" of the activity itself. Such comments as I "enjoy touching the rock", [I climb] "for the enjoyment of the physical movement" and "[I] just like moving over rock" imply that there is a certain learned behaviour and movement connected with rockclimbing that grows with experience. It certainly does not conjure up the picture of a climber lurching from hold to hold using brute strength alone. The image is one of controlled movement where grace and form are important; where "the physical movement over rock" is the main attraction; "it's the climbing not the climb, that's the motivation".

"Movements of the body pleasurable to self, and associated with the consciousness of gracefulness, are movements of a kind that bring many muscles into moderate harmonious action and strain none" (Spencer quoted in Lowe: 1977, p 235) expresses this pleasure found through movement. Taylor (1980) found that in contemporary Western society with the emergence of awareness of Eastern philosophies such as Zen and meditation

> *has come the recognition that there is a sort of insight, repose, and clarity in articulate movement, that the body is not simply the profane package of an imprisoned intelligence but rather the substance of awareness itself.* (Taylor: 1980, p 100)

These concepts have led to the enjoyment of the physical movement and activity itself irrespective of the fitness aspect.

As previously discussed there is a positive correlation between physical activity and health (Paffenbarger, Hyde and Dow: 1991, Wankel and Berger: 1991). "There is increasing evidence to indicate that involvement in physical activity is one important factor facilitating the development of positive health" Wankel and Berger: 1991, p 126). Many individuals in modern society are well aware of this relationship between physical exercise and health, hence the trend toward the involvement in physical activity. "Health is not merely the presence or absence of disease but a continuum representing all levels of bodily activity from the utmost to the lowest end point (Pfaffenbarger, Hyde and Dow: 1991, p 50).

Some climbers enjoyed climbing for the pure physical exercise and because it's an activity that they can do well. It keeps them fit and there is pleasure in the movement over the rock and the 'flow' that comes from this sort of activity. These are typically some of the varied comments that related to climbing and physical exercise.

> *"the physical nature of the sport, the sense of achievement when [I have] completed a successful lead and the very personal/individual framework of climbing";*
> *"the physical movement over rock";*
> *"enjoyment of physical activity";*
> *"for the enjoyment of the physical movement"; or*
> *"to keep fit".*

In modern society, then, there is a trend toward more physical activity by many individuals "as an outcome of the health, wellness, and fitness movement of the 1970s and 1980s" (M^{c}Pherson: 1991, p 424) and rockclimbing is one of the many activities that are being chosen.

Environment and the Wilderness Experience

Many respondents indicated that they used climbing gyms in order to keep or get fit. Climbing gyms are indoor areas where artificial climbs have been created by fixing hand and foot holds to textured walls. The difficulty, strength and skill required to climb a particular climb is thus under the control of the management. No one actually gave as a reason for climbing that they wanted to go to a gym for the "atmosphere".

A frequent comment was that climbers wanted to be on the rock in a natural setting. There was a "desire to explore the outdoors", "to visit new crags (places/ countries)" and to "get into spectacular situations".

The physical location of the wilderness and being away from the town or city gives rise to special feelings. The aspect and location of the cliff is also of significance in the sense that being high up on a crag is not a usual place to be and hence has a feeling of importance attached to it.

> *The current ecological movement to save the natural environment from an affluent and over productive society indicates a modern concern for nature as well as its great appeal expressed by increasing numbers of people seeking sports activities away from the cities and gymnasiums and in natural settings*. (Progen: 1974, p 197)

In a similar way to the physical activity aspect previously discussed, the impetus to go into the outdoors and the wilderness is one of the current desires of many people. Climbing, being essentially an outdoor activity is undertaken to satisfy this need. It is not exclusive to climbing but is a common factor for many activities such as canoeing, skiing, surfing, bushwalking, caving and scuba diving.

Enjoyment of the environment and the wilderness experience is a label that can be applied to any outdoor activity that takes place in a natural setting. The wilderness experience is very distinct from the "adventure" category and is an attitude of mind in appreciating nature and enjoying the physical setting(s) of the climb. The wilderness experience "is a function of what people are seeking, what they perceive, and it is coloured by our meanings, symbols and needs" (M^{c}Donald and Schreyer: 1991, p 184). It is a personal experience, a individual experience and an experience where close contact with things natural is an integral part of the spiritual experience (M^{c}Donald and Schreyer: 1991).

Some expressions that relate to being in the 'wilderness' were:-

"it takes me to the most beautiful places in the world";
"to do something intensive and intimate with nature";
"to be in the bush"; and
"to be in the bush/wilderness".

One interesting response in the wilderness vein was that climbing allowed access to positions where "excellent photographic opportunities" arose. The respondent indicated that he had progressed through climbing and was now at a stage of "using climbing" as a tool to further his photographic ambitions.

This response is included in the "wilderness" theme as the location and aspect on the crag is most significant. Replies to other questions by this respondent indicated that the photography of outdoor, wilderness settings was important.

Change and Difference

For many climbers the fact that climbing offers a "pressure relief from work" and "a change from work" was important. This is a common issue that arises with many leisure activities (for example see Rojek, 1985; Kelly, 1987; Iso-Ahola, 1989; and Wankel and Berger, 1991). This freely chosen activity, different from work is, in fact, part of many definitions of leisure (Csikzentmihalyi and Kleiber, 1991). To participate in something different is one of the rewards of leisure.

Many saw climbing as different and that it provides a natural break in the work routine and offers a chance "to do something out of the ordinary". This was a feature emphasised by Mitchell (1983).

Mitchell (1983) found that in the modern world where many very talented people are employed by large organisations, there are limited opportunities for taking responsibility and stretching ones talents to the limits. In these particular employment situations Csikzentmihalyi's (1975) sense of flow cannot be achieved and "the relationship between task and talent, between ability and responsibility is woefully skewed" (Mitchell, 1988, p 224). This leads many people in society to feel that there is a stifling of their potential. Some are prepared to suffer this curtailment of intrinsic reward for material rewards, however, "people who climb mountains are not" (p 224).

In what they perceive as a homogenised, sterilised, rationalised, and rule- governed social world, climbers and their ilk seek a raw encounter with an environment that can only be met with a full

measure of personal commitment, innovation, and investment
(Mitchell: 1988, p 224).

This is interpreted in terms of positive action and the search for an activity that allows Flow to be found within leisure if it cannot be found otherwise.

One female climber felt that, not only is climbing enjoyable, but "climbing is ... really great for taking you right out of your usual work/living environment. Being in the bush or by the sea (cliffs) can be very relaxing and soothing" ... " climbing is certainly a good distracter from work".

The Situation

The colloquial terminology of "the situation" is in some sense unusual but for many climbers is a standard phrase. A typical comment was that the respondent liked climbing because it allowed one to "get into spectacular situations". In the jargon of climbing this means being in a physical position that is very exposed and (usually very) high off the ground. It is a heightened sense of physical place and gives rise to a concept of mental place which extends to the feeling that "climbing is a sport [through which] a person can find inner strength ... that can be used in their personal or working life".

In this sense the physical situation is giving rise to a specific mental outlook. However, it is very important that this is a controlled situation along the lines required by flow. For the inexperienced climber this could easily turn into a terrifying situation on an exposed cliff face. Several other respondents referred to this phenomena and for many climbers the fact that non-climbers could not experience this "situation" represented an important factor. It should be kept in mind that other substitutable activities can give a similar experience. Such activities as hang gliding - being suspended in silent controlled flight high above the earth; scuba diving - moving in an alien, under water environment; or mountain biking - moving at speed along narrow bush or mountain trails.

The setting [situation?] *is the sum of physical, cultural, and emotional elements, but the relative importance of these elements may vary. In some cases, the physical environment may be necessary to invoke a spiritual condition; in others, the physical environment may be of little importance"* (McDonald and Schreyer: 1991, p 188)

One individual expressed the sense of situation well when he said that,

> *I enjoy the physical challenge still, and the sensation of support (<u>not</u> push) from a second, as well as the landscape in which it all takes place. My last climb (a multi pitch at Arapiles) finished just on dark, the lights of Horsham came on, and the red slash of a brush fire glowed out on the Wimmera; never better exhilaration felt that then [sic].*

This expression of situation can also relate to the concept of 'place'. This is not simply place in the terms of a physical location. It includes a sense of belonging both physically and psychologically - a place within a social group. This sense of place provides social relationships and falls at the third level in Maslow's "Hierarchy of human needs" (Avery and Baker: 1990, p 380). This was expressed by a climber of over thirty years experience when he commented that "climbing intensifies the experience of place".

The development of a sense of place is something that can only happen with a great deal of time having been spent in active participation. It is an illustration of how participation factors develop over time. This is the one motivation that was not found to be specifically mentioned in the literature as an acknowledged motive in itself.

While ‘the situation’ could be interpreted as a combination of other factors, it is of particular interest that it was specifically mentioned by many respondents as a factor in their climbing. Being ‘exposed’ on a high wall of rock has a definite attraction to those who enjoy climbing. Paradoxically, the difficulty non-climbers have in understanding this liking for exposure possibly aids in it’s attraction to climbers along with the ability to function and operate normally under such apparently threatening circumstances.

To summarise, one climber with 34 years experience concluded,

> *The situation (of the cliff, the view, the whole physical location) is one of the most important things. It gives the atmosphere to the climb as much as the rock itself. The activity is absorbing ...* [one] *can switch off from normal thought.*

Feelings of Self Actualisation and Wholeness

It is constructive at this point to note other miscellaneous quotations that were given as to why individuals felt they rockclimbed. They demonstrate deeper, almost

spiritual, feelings that relate to self actualisation and internal, personal attitudes. They do this in a much more personally significant sense than other comments related above.

Csikszentmihalyi and Kleiber (1991) "observed that for the ancient Greeks "true" leisure [was] only obtained when individuals used their freedom to explore the limits of their potentialities and to expand the range of their mental, physical, and social skills, what today we might call *self-actualization*." (p 91)

Self-actualisation develops in the individual as the individual progresses towards more and more intrinsic rewards. Such comments as “I like being able to measure the challenge, ie grade, and improve my standard”; “[I like] to do the hardest things that I can possibly do and to constantly improve”; and the “desire for personal improvement and physical accomplishment” illustrate the positive feedback mechanism applied in Recreational Development (Ewert, 1989).

The following comment is from a female climber who has been closely involved with rockclimbing for two years. She is climbing at high grades and has written a number of articles on women and climbing. She described how she is able to,

> *enjoy the physical and social and mental aspects [of climbing]. Gradually becoming stronger makes climbing more enjoyable. [I have a] great sense of achievement when [I] successfully lead a difficult or new route. My own personal drive to get up a route is the best [motivation]. If I have encouragement [from friends], that certainly is a positive and helpful factor.*

She further noted that

> *the physical nature of the sport, the sense of achievement when* [I've] *completed a successful lead and the very personal/individual framework of climbing* [makes it a very rewarding activity] - *ie. it is up to you what level you climb at and what you achieve.*

Deeper and more philosophical feelings came from a male climber who took a very wide view by stating how he felt that,

> *I think that for many people, including myself, climbing helps us to forget our own mortality. It is like saying 'I am a big strong being that can do amazing things and never die'. We seem to quickly forget those moments of extreme terror when we are all too aware of the possibility of death!*

Having been actively involved in climbing for over fifteen years he had obviously felt that some form of personal philosophy was necessary to justify continued

participation. As expressed by Camus (1955, p 7) he felt an "invitation to live and create, in the very midst of the desert".

The individuality and the importance of not simply climbing, but climbing well, and to perform to internally, self assessed standards was expressed by the following from a male climber who felt that he climbed,

> *for the satisfaction of doing hard sequences high up [off the ground] with some sort of style;*
> *to create routes that have quality; [and because]*
> *I've been doing it for so long now that its possibly cultural if not just the natural thing to do.*

That the process of climbing flows across the whole into other activities was expressed by a female climber who after nine years of active participation in climbing felt that,

> *It gives me the self confidence about myself in not only outdoor activities, but helped me have confidence in my other activities. I am a very 'average' athlete, but climbing has taught me to think ahead and be prepared for the unlikely events ... I have become more aware of other possibilities.*

This is in accordance with the observed paradox "where as the self disappears during a flow experience, it reappears afterwards stronger than it had been before, because climbing a mountain or playing the new song has expanded its limits. In concrete terms this is what self-actualization implies". (Csikzentmihalyi and Kleiber: 1991, p 96)

Adventure

Adventure is the excitement of a new challenge and the accompanying exhilaration of being extended, both physically and mentally. Adventure can be the excitement of exploration of new places and rock where perhaps no one else has climbed before or of taking yourself to the limits of where you have been before. This is extending one's 'comfort zone'.

This was most often expressed in the form of enjoying the physical challenge and excitement - the heightened excitement of the challenge of the unknown. Comments such as "[one climbs] to learn more about oneself in situations of fear" and "I like being able to measure the challenge ie the grade and improve my standard; I love the challenge of each new climb" exemplify the adventurous spirit that some climbers pursue. More simply "[the] desire to explore the outdoors" indicates directly this quest for adventure or for experiences with nature.

Included in this search for adventure and excitement is not only the adventure and excitement obtained from rockclimbing but also similar experiences drawn from other such activities. This relates to the concept of substitutability as proposed by Christensen and Yoesting (1977) and discussed in the literature review. Many respondents to the survey indicated that they were also active in mountain biking, wind surfing, paragliding, mountaineering and canyoning, all activities that are regarded as 'adventure sports'. All of these "activities with common characteristics [that] may be 'substitutable' for each other with little loss in satisfaction" (p 189) satisfy the criteria of substitutability as far as adventure is concerned.

At the extreme of the adventure scale were the comments that brought out the "edgework" described by Lyng (1990). Several climbers responded to the question "Do you find you climb better when you are under pressure?" with statements such as: "Yes. Pressure from climbing at or above my personal limit. My concentration is more focussed at that time"; " Yes. I like to lead - the pressure helps me focus"; "Yes. Absolutely personal - when alone. A powerful spiritual element that overrides fear, distractions, etc"; and "Yes. Pressure from big exposures, [it is] also good when stressed out to focus on a climb that's a bit scary".

A Distinctive and/or Unusual Activity

Many people expressed the view that they climb because it is different, unconventional and there are no formal rules or governing hierarchy to which one must submit in order to participate, at least at the recreational level. Certainly there is a "moral code of conduct" as there is with any human activity. This code sets undeclared rules and standards but it is more of an inner code or a personal code of conduct than a formal set of rules.

Respondents indicated that one of the reasons that they enjoyed rockclimbing was it’s unconventional nature. It was something that not many people did, or even understood, and for this reason, was attractive - at least in the initial phases.

Two respondents illustrated this theme when one said that "I was tired of playing soccer 3 -4 days after work, I needed a new activity"; while the second, who found that he was not good at group sports nor did he enjoy them, felt unfulfilled going to the pub, having girl friends etc, simply declared that he started climbing because it was a "different activity". While finally from a female climber came the following reply to the question 'why did you start climbing?':-

My brother's photos and magazines looked 'wild'. I wondered how I would cope with the exposure and fear. I wanted to see. I was also at a stage when I wanted to try new things, meet new people.

One simply said that the desire to climb was "the desire to do something out of the ordinary" and another "to do something entirely different from day-to-day routine activities, to feel different".

This concept of an unconventional or different activity falls within the realm of self-affirmation (Haggard and Williams: 1991) or recognition (M^{c}Intyre: 1991). Very few, if any, individuals would undertake climbing on a non-voluntary basis. In fact no accredited rockclimbing instructor will instruct individuals if they do not wish to climb; the potential risks are too great. This means then, that climbing is freely chosen. "Freedom of choice is a primary defining criterion in people's perception of leisure" and "freely performed behaviours allow the individual to construct with more control and precision those situations that will affirm the images he or she desires" (Haggard and Williams: 1991, p 104).

M^{c}Intyre (1991), in a factor analysis of motivations for rockclimbing, found that the percentage of variation in motives explained by this one factor was 23% (p 35), the suggestion being that this could "relate to the external image created by the climber" (p 35). The use of this image is to make oneself different from non-climbers and at the same time by climbing well raise recognition amongst one's peer group.

Further comments illustrated the possible marginalisation (Stebbins: 1979, p 40) that can occur when an individual is committed to a particular activity that is unconventional or not a mainstream activity. These comments included, for example, "the people at work have no idea of what rockclimbing is really about". This was highlighted by difficulties expressed when in a group setting the majority of those present discuss football or cricket while the climber, who has limited knowledge of these sports, is left as an observer, out of the main conversation.

Cognitive Domain

Many climbers indicated that they enjoyed climbing because of the mental challenge of problem solving. Skills accrued over many years allow a climber to negotiate a section of rock and the skilful placing of rockclimbing equipment provides protection in the event of a fall. Climbers absorbed in the flow of the climbing process find their minds taken off work, family and home. This has been likened to a state of meditation.

Comments included thoughts like relaxation, meditation, the mental challenge and stimulation, problem solving, technical skill, etc. An area where respondents felt that the tasks were as much mentally challenging as they were physically challenging.

Some of these expressions were:

"I liked the puzzle aspects - that is each, climb offers a new situation to be solved";
"the mental stimulation and challenge";
"it is relaxing";and
"the mental activity and the sense of achievement"

M^{c}Intyre (1991) found that 'problem solving' rated 13% in percentage variation in motivation for explaining motivations for climbing (p 35). In terms of problem solving, rockclimbing has been likened to playing chess, to the extent that some of the first rockclimbs in the Blue Mountains of New South Wales were named after chess moves, for example: “Chessboard”, “Knight’s Move” and “Queen’s Defence” (Allen: 1963). Humphries (1995) set the mental skills of a climber as factor number one in a list of five significant areas for the promotion of safe climbing.

Mental skills enhance physical skills and help to reduce the risk of injury ... such skills include visualisation of the task ahead, ... mental rehearsal of the task, ... relaxation techniques, ... to focus one's attention ... [and] is probably more critical to the safety of the entire party. (Humphries: 1995, p 6)

A combination of all skills is required in order to make climbing an enjoyable experience. This was expressed by one respondent as "the most enjoyable pitches [were] ones that were led and climbed well" - one's where all climbing skills were required, physical and mental.

An extension of the wilderness experience of the outdoor setting can also lead to an exploration of the inner self. Rockclimbing is seen by some climbers as "a means of exploring; discovering; belonging" and "help[ing] you to understand your way of life", and also as a "sport [through which] a person can find inner strength .. that can be used in their personal and working life".

Humans search for purpose beyond mere subsistence. The search is, inevitably, a search for meaning beyond the physical aspects of staying alive ... Leisure provides an opportunity for individual expression that is well suited to such personal enquiry. The nature of leisure itself tends to promote philosophical perspectives of life. (M^{c}Donald and Schreyer: 1991, p 180)

The concept was taken to greater lengths by some who saw climbing as a form of meditation. This was in the sense that with meditation all thoughts and distractions are removed from the mind so that the "inner self" can be experienced with no distractions. The meditation analogy with rockclimbing is that while climbing, complete concentration must be given to the task at hand. Any possibly distracting thoughts must be dismissed, as a lapse in concentration could give rise to a very dangerous and possibly life threatening situation. So for the climber, while climbing, all thoughts must be of climbing. Those thoughts relating to work, home or other situations are to be put aside for the duration of the climb.

The response of some climbers to the proposal by colleagues that there could be any similarity between climbing and meditation was bewilderment, while others gave it a "triple A rating" for being like meditation - indicating that the attitude that climbing is like meditation is not a consistently held view - or that ‘meditation’ is understood to mean different things.

One popular view was to see climbing as "mental stimulation and challenge". From discussions it was seen as partially an exercise in problem solving, in working out a sequence of moves in order to climb a route and in the use of climbing equipment in arranging protection (to prevent injury in the event of a fall) on a climb. In this way one climber thought that "climbing help[s] you to understand [your] way of life better".

This emphasis on what rockclimbing means to many climbers was found to exist for the more general situation by Marans and Mohai (1991) who concluded that "there are strong threads throughout the literature indicating that feelings about one's leisure and the particular activities one engages in bear on one's overall quality of life". (p 355)

Social Interaction

Participating in climbing is time spent with friends. Participation in social activity occurs while climbing or during social gatherings after a climbing day. Climbers also know that they are part of a wider group of individuals who enjoy this activity and while they may not be in immediate physical social presence their existence is important.

"Successful adaption within any social system requires assimilation of the requisite norms and values" [of the group] (Wankel and Berger: 1991, p 131). As with any human activity there is an element of inherent sociability. Whether this is being with

and enjoying the company of friends or simply feeling part of a larger climbing group who may not actually be present, respondents felt that contact with other people was a necessary part of the process.

Many comments related directly to this theme. Those such as:-

"I enjoy rockclimbing friends company";
"I enjoy the company of other climbers";
"the social activity";
"to share my friends love of the sport";
"quality friendships"; and
"I see rockclimbing as a very relaxing pastime, to spend one's weekend in the bush and with [the] good company of friends";

A further point relating to the social theme was touched on in the summary of "Ross" in Section 4.3. This was marginality. "Ross" discussed how he sometimes "finds it awkward to explain in a social situation or business setting that he climbs". He felt that by not following football, cricket or one of the more popular activities he could "easily be left out in social situations and business meetings". This is the point made by Stebbins (1979) when he discussed the marginalisation of individuals and amateurs who were committed to their particular activity and who did not follow mainstream activities. This social reaction was also mentioned by several others although not as directly as "Ross".

For an individual the process of socialisation is an important aspect of their life, it determines how they relate to their immediate peers and society at large. It is an important aspect of leisure. "It is probably in leisure, more than any other context, that one experiences the dialectic of social life, approaching social relatedness while striving for individual freedom" (Iso-Ahola: 1980, p 93).

One climber explained that "there probably aren't too many opportunities for a 52 year old guy to continue 'playing' with his grown sons. This activity has certainly strengthened our relationships". He also stated that he liked the activity for itself and its "outdoor experience, especially in a 'wild' setting", for the "social interaction" and the "physical challenge".

This response is a specialised example of the "social" theme. It is socialising with the family, a way of spending time together. There are many climbers who climb with their spouse, partner, siblings, children or parents. In the replies to the question in the questionnaire "*does anyone else in your family climb?*" many replies indicated that this was the case.

Learning

The learning benefits of leisure activities were discussed by Roggenbuck, Loomis and Dagostino (1991). They postulated that learning during a leisure activity can have carry-over benefits into other areas of one's life and this was verified by two respondents who emphasised this point.

The first came from a male who had been climbing for forty years:-

Climbing is a sport that [sic] a person can find inner strength. That can be used in their persona; or working life.

The second response came from a female who had been climbing for eleven years:-

It gives me self-confidence about myself in not only outdoor activities, but helps me have confidence in my other activities. I am a very 'average' athlete, but climbing has taught me to think ahead and be prepared for the unlikely events while doing other outdoor activities. I have become more aware of other possibilities.

These two comments clearly indicate that experiences from climbing have been carried over into daily activities and other aspects of life.

4.5 The Relation of Comments to Theory

The themes raised from the analysis are generally consistent with those discussed in Chapter 2. For example the "need for adventure" (Lynch: 1993, p 50) results in benefits for the individual with respect to self-identity and self-actualisation (Haggard and Williams: 1991); health and physical fitness (Paffenburger, Hyde and Dow: 1991); spiritual benefits (McDonald and Schryer: 1991); and learning benefits (Roggenbuck, Loomis and Dagostino: 1991). There is also another side to adventure that includes a need on the part of some individuals for the experience of an element of risk (Meyer: 1980, Boga: 1988). The experience of risk, real or apparent, can simply give rise to a heightened sense of enjoyment. The element of risk can also lead to a feeling that this activity is different, unconventional and thus give rise to an image of one as a climber and a particular notion of self-identity (Klapp: 1968).

The psychological benefits relate to relaxation, resulting from a change of situation from the normal workplace (Mitchell: 1983), and an experience of Flow

(Csikszentmihalyi: 1975). The social benefits of being with friends and enjoying a common interest also had their converse side in that some climbers felt marginalised due to their lack of interest and/or knowledge of mainstream cultural activities (see Stebbins: 1979).

All of the comments collected correlate well to information gathered through the literature survey with no particularly outstanding irregularities.

4.6 Changing Perceptions with Experience

It is now instructive to examine comments that illustrate a change in attitude. While examining the comments and remarks made by respondents it was apparent that the character of some of the comments made by those climbers who had been climbing for only a short while (less than ten years) were essentially different to those made by longer time climbers, greater than fifteen years. The trend appeared to be that those who had been associated with rockclimbing for a shorter time tended to look more for the excitement value of the activity and toward peer group approval and opinion than those who had been actively climbing for a longer time.

Many climbers indicated that they first went because “a friend introduced me to climbing”; [I] “saw others doing it”; “through Venture Scouts”; and “I started going out with a rockclimber”.

What follows is a collection of comments from respondents who have been climbing for various lengths of time. The gender of the respondent and the participation time in rockclimbing is noted in brackets after each respective quotation.

The first quote came from the individuals who had been participating in rockclimbing for the shortest time of all climbers surveyed. To the question "Why do you rockclimb now?" one responded "I'm enjoying a new and adrenaline-pumping sport" and "I enjoy rockclimbing friends company" (male, two months participation); while the second stated that he climbed "to share my friends love of the sport" and because it is "a new and exciting sport" (male, two months).

One stated that he climbs better under "pressure from big exposures" and that it is "also good when stressed out to focus on a climb that's a bit scary" (male, eighteen months).

Another listed important reason for climbing was "sheer terror concentrates the mind clearing it; each decision is critical to continued survival" (male, twelve years).

Following is a list of responses to the same question, "Why do you rockclimb now?":-

- "enjoyment of being scared??" (male, six years);
- "to learn more about oneself in situations of fear (pressure, stress)" (male, nineteen months;
- "personal challenge - mental and physical, bit of a thrill" (male, twenty months);
- "to face and beat fear" (female, two years);
- "fun, thrills, social involvement" (male, three years);
- "It's interesting. I enjoy the company of other climbers. It's physically and mentally stressful depending on the grade of climb and type." (male, four years);
- "the rush", ie the "adrenaline flow experienced during times of fear (male, five years); and
- "I like being able to measure the challenge ie the grade, and improve my standard. I love the challenge of each new climb. If one of my climbing friends can climb something then I want to be able to climb it too. I finished the 19 even with a dislocated shoulder because I knew my friend had led it the week before - I couldn't let a boy beat me." (female, five years);

These responses were typical of short term participants. Some responses were simply one or two words, however, the implications were that climbing was a "thrill" seeking activity and that the opinion of one's peer group was most important.

During an interview with a climber who had been climbing for approximately five years he stated that for him a weekend of rockclimbing meant that he "wanted to get out and get some adventure".

In one of the interviews a young couple who started climbing together and had been climbing for about four months, after doing a commercial climbing course, emphasised that one of the main reasons had attracted them to climbing was the for the excitement and the opportunity to overcome their fears. They felt that through learning to climb they could gain skills that would allow them to control their initial fear of being on the cliffs.

This does not imply that longer term climbers do not seek a certain excitement and desire peer approval or recognition or that some short term climbers do not seek

similar rewards to long term climbers. What is notable is that the use of the word "enjoyment" in connection with participation in rockclimbing was not evident until participation had been for a longer time period. Excitement and peer approval were seen as important ends in themselves more so than actual enjoyment.

(**Note**: It was not possible to see if this expression of enjoyment was a function of age and not length of time of actively climbing as there were no older climbers who had only been climbing for a short time.)

Part of the enjoyment of an activity comes from peer group approval and perhaps peer group admiration for one's actions. This is also a part of Maslow's (1970) hierarchy of needs. From the many comments examined, excitement is also shown to be clearly a part of rockclimbing. However, it seems that to think of rockclimbing as an "enjoyable" activity is not an attitude that forms until after many years of participation.

The following is a list of responses from long term climbers. These express typical feelings and motivations and can be viewed in direct comparison to the list of comments quoted above. They are responses to the same question "Why do you rockclimb now?" as previously noted.

- "Climbing is now an entrenched and controlling aspect of my lifestyle" (male 35 years climbing);

- "It is relaxing, climbing help[s] you to understand [your] way of life better" (male, 33 years);

- "Friendship, fun, rhythmical movement" (male, 33 years);

- "Just like moving over rock" (male, 30 years);

- "physical activity, problem solving, environment, social contact" (male, 29 years);

- "It's a means of exploring, discovering, belonging" (female, 25 years);

- "Mental stimulation + challenge, physical challenge, outdoors in the bush. Generally a non-competive [sic] sport. The competition that has crept in in the last few years has put me off considerably - I prefer to compete with myself not others" (female, 24 years);

- "Concentration, problem solving, relaxation" (male, 23 years); and

- "Desire for personal improvement and physical accomplishment" (male, 22 years).

These comments illustrate the emphasis placed on intrinsic rewards by long term climbers as opposed to the more extrinsic rewards emphasised by short term climbers.

It is perhaps important to mention that not all responses conveniently fall into the required pattern. While there were no specific responses from longer term climbers that emphasised extrinsic rewards there were responses from more recent climbers who emphasised that intrinsic rewards were important to them. Two examples are,

- I "*enjoy the physical + social + mental aspects . Gradually becoming physically stronger makes climbing more enjoyable. Great sense of achievement. When successfully lead a difficult or new route".* (female, 2 years)

and

- *" absolutely personal - when alone. A powerful spiritual element that overrides fear, distractions etc".* (male, 4 years)

Responses such as these perhaps illustrate the point that a change from extrinsic to intrinsic rewards can commence after a relatively short time. This will, naturally, be very dependent on the individual.

The evolution from extrinsic to intrinsic motivations is well summarised by the response:

I have changed my reasons that I climb as I have personally changed. I believe I started to climb to be involved in adventure and the outdoors. I've had to work hard to be any good but I have loved it from the beginning. I started because it was also very different and I wanted to be different from the rest of the world - parents etc. Climbing has given me purpose all of my life and I suppose has made me what I am today - for good or bad!
I now climb still for fun and social reasons which have not changed but I recognise the joy and recharge I get from being totally in present time when climbing hard. This is what I seek now that my life is pretty strong. To gain the present moment". (male, 27 years)

The changing of perceptions and motivations over time is as expected from the work of Becker (1953); Csikszentmihalyi (1975); Schreyer, White and M^{c}Cool (1980); and Ewert (1989). The evolving responses indicate "an evolution of involvement in the activities which may ultimately change the original motive for participation" (Schreyer, White and McCool: 1980, p 25). More importantly this evolution can lead to "changes in the person's conception of the activity and of the experience it provides for him [sic]" (Becker: 1953, p 235).

4.7 The Climbing Literat re

The aim of this section is to see how comments relating to motivation, behaviour and attitudes expresses by climbing authors compare to the comments made by climbers involved in this study.

It was found that many of the comments on climbing expressed by respondents to the current research correspond directly to the sentiments expressed in much of the contemporary climbing literature. Certainly the expressions in the literature are much more professional and polished than some of those presented to the researcher, however, the feelings and sentiments are still very much the same.

Until recently, climbing literature concentrated on the climbing story or the "adventure" of the activity. "The Ascent of Everest" by John Hunt (1953) and "Annapurna - Conquest of the First 8000-metre Peak" by Maurice Herzog are both typical of this genre. Books, short stories, biographies and magazine articles tended to be in the "Boys' Own" style, where everyone had a "jolly good time" and the team all "pulled together" to accomplish the goal. The actual events, disagreements and personality clashes that inevitably must occur in such situations were purely the subject of conjecture and rumour.

Important issues such as family and personal difficulties, emotions and feelings, motivations and desires were typically not considered to be appropriate topics for discussion and documentation. Mountaineering and polar expeditions always had the veneer of science or some other "respectable" higher motive. It was not until the 1970s that authors began to explore their own motivations and goals and to factually document the "personal" experience. As a consequence this has led to a growth in climbing literature which is an expression of the popular climbing culture and the actual experience of the climber as an individual. From this literature there has developed a picture on the motivation of individual climbers as to why they climb. This literature provides insights into the motivations of climbers who have chosen to write about their experiences. Selected comments draw out feelings and motivations directly comparable with the comments from individuals participating in this research.

The access of authors to modern publishing techniques has meant that an author need not be well known or high profile in order to publish a book. 'Unknown' authors with an "average" story to tell can express their motivations . These then offer an opportunity for analysis.

Tabin (1993) summarised his motives for climbing as follows:-

It is difficult to express the joy that I get from climbing and adventures. People can point to the hardships and risks and question my use of the word "joy", but it is truly joy; joy in the discoveries, in the movement, in the situations, in the travel, in the views, in the success on the summits, in the focussing of energy in failure, and in the 'seilshaft' [camaraderie]. (p 195)

Tabin is an American climber who has climbed to the summits of the highest mountains in all seven continents, yet the motives he gives could have come from any one of the respondents to interviews or the questionaries. His motivations are the same as those of the typical climber who took part in this survey.

Klobuchar (1990), another American climber and newspaper columnist who has been climbing for over 30 years, expressed thoughts concerning motives for climbing that are reflected in many of the comments made by long time climbers. He wrote:-

I don't know how much room ego has occupied in my climbing episodes. There was some of that. But the ageing process pretty much dissolves that. In later years I've found it is a good and mostly joyous renewal. It is an exciting hour and a kinship revisited, a freedom rediscovered. I find that climbing in later years still appeases a curiosity, about one's self and the sensation of lifting one's self into the sky. And it never looses one of its first exhilarations - the feeling that you are facing the forbidden because it is a challenge of gravity. The mountain is the old oak tree of our childhood. The wish to climb it is just as primitive. But if can keep vanity out of it and accept a minimal risk as part of achieving, then climbing can truly make you free, for an hour or for a lifetime. (p 95)

Here Klobuchar expresses the enjoyment, the adventure, the physical movement, the mental stimulation and the place in the wilderness that climbing has to offer him. He acknowledges that initially there may have been some ego involved when he was younger. This facet was previously discussed when comparing the difference in views between long and short term climbers above. In particular, it should be noted, that Klobuchar clearly draws out the relationship between long term active participation and intrinsic motivation.

For example, from questionnaire comments, one climber who had been climbing for two months stated that he climbed better when there was "pressure from climbing friends" while a second who had been climbing regularly for two years said that he found that he climbed better when "achieving for [himself] and close friends". Clearly there is an element of ego at work here. It is notable that climbers who had been climbing regularly for many years did not make comments that related to ego in the same way. This does not necessarily mean that ego played no

part, it could still play a minor part, as comments were only requested on major factors contributing to climbing enjoyment and motivation.

The motivation for climbing can be exceedingly strong as expressed by Gray (1990):-

> *Mountaineering's hold over its participants must seem a mystery at times to those who have either to live or work with them or who love them. I know that my own family has suffered because of my need to climb and travel; I neglected my wife and she ended up bemused by this imperative. As I have grown older this need has not diminished, but has become stronger and stronger - at time I would sell my soul to the devil if it meant I could get out on to the hills or rocks, or even on to an artificial climbing wall sometimes! I have always climbed in order to know life more fully. Climbing has given me clear objectives - the conquest of a route, a face, a peak - and in this there has been no inner conflict about whether it was right or wrong! There has been the added bonus of the aesthetic appeal of wilderness areas and the mountain and crag scenery and, most of all, friendships.* (p 196)

In this short paragraph he has covered many of the points brought out by this research including a focus on the need to climb, the wilderness, the spiritual and mental, the social contact and friendships, and how this has grown over the years and not diminished.

This brief examination of a few extracts from climbing literature demonstrates a consistent correlation with the attitudes, feelings and motivations drawn out through the research process.

4.8 Participant Observation

The function of the participant observation sessions were to observe behaviour on the larger scale as opposed to examining the basic motivations. The questionnaires, interviews and focus groups were aimed at discovering the motivations that controlled the individual's behaviour. Participant observation was directed toward the examination of group behaviour and how different individuals responded to the same situation.

Thus, whenever opportunity allowed, observations were made with respect to participants comments, actions, or other behaviour which may give some indication into motivation, enjoyment or satisfaction with the activity.

The purpose of the participant observations was to directly document actions and activities of active climbers while climbing and to then examine and interpret these actions in terms of existing or proposed models of participation.

There were many opportunities for participant observation and a typical event is described in some detail below. This event was chosen as the author was one of the three climbers described. The reason for using this particular example is that with the author being an integral part of the climbing party close observations can be made at all stages. If an observer is not actually on the rope with the climbers it can be difficult to make a constant observation because when the party is on the cliff it is extremely difficult to make accurate judgements as to their conversation. From other observations, however, it is a reasonable assumption that this is a typical climbing situation.

The specific action detailed below is one which allowed the direct comparison of the motives, attitudes and behavioural responses of long and short term participants. For each participant the parameters for the day's activities are the same. The only variable being climbing experience which is related to the length of time climbing. As shall be demonstrated, each climber had a very different perspective of the day's events. This will be seen to be most important, as it leads to a short fall in the application of one of the existing theories of participation.

What follows below is a typical observation of how three climbers experiencing the same climbing day, the same climbs on the same rope can come to view the experience in very different and contrasting ways. Initially this proved very confusing in terms of direct observation, however, once there had been some progress made in the application of how various theories may be applied to the same situation, the many apparently conflicting experiences of participants could be explained and understood.

The event is a typical climbing day with three climbers of very different climbing ability and experience.

It is the end of a warm, sunny day in the Blue Mountains, west of Sydney. Three climbers have done several rockclimbs together over the course of the day. Climber No 1, Terry, has been actively rockclimbing for many years and knows the climbing area well and many of the climbs extensively. He has climbed most of the climbs of before and can confidently lead many of the harder climbs.

Climber No 2, Hamish, has been climbing for several years. he has a reasonable amount of experience and is quite a competent rockclimber. He has not got the breadth of experience as climber No 1 but, never-the-less, he is enthusiastic, enjoys climbing and is always willing to learn by testing new experiences.

Climber No 3, John, is a relative beginner and for some reason that he cannot quite explain has decided to try rockclimbing. He has approached this in a positive and directed manner with the intention of giving it a "serious go". Although he has done some basic instruction and a lot of practice climbing he has never been in the situation of climbing on a "true" rockclimb before with multiple pitches. For him it is a totally new experience to be in such a rockclimbing area .

The climbers have spent the day together doing the same climbs. The only difference in their individual experiences to the external observer is that most of the lead climbing was shared by Terry and Hamish, with Terry tending to lead the harder climbs. Hamish led approximately half of the climbing. Most of the belaying was done by Terry and Hamish, while a small amount was done, under close instruction, by John as he was very much in the learning mode and it was an excellent opportunity for him to have practice at belaying while under supervision. With the leading being done by Terry and Hamish this meant that they took all of the real physical risk while John always climbed in comparative safety with a minimal possibility of physical injury. Essentially John was along for the ride and could relax, enjoy the experience and learn a great deal from the day.

We now look at the personal experiences of the three climbers over the course of the day. The interpretation was gathered from a focussed discussion following the day's activities. The participants quite freely discussed how and what they felt both during the day and at the conclusion of the day's climbing.

Terry, the experienced, long time climber, saw the day on the whole as relaxing. Most of the climbing was well within his capabilities . There were a few occasions, while leading, where arousal was high and his current physical limits were being pushed. For the remainder of the time. however, he was climbing well within his capabilities. He felt neither anxious nor bored but rather relaxed - enjoying the time on the rock and being in the outdoors.

Hamish, the intermediate level climber, enjoyed the day. There were times when he was challenged, where arousal levels were high and the climbing was close to his ability - both leading and seconding. For him the day was a

mixture of learning, new experiences and being in the outdoors. He has a keen interest in climbing and is willing to push his limits in order to expand his horizons.

John, the relative novice. For him the day was not so enjoyable. He experienced a lot of uncomfortable situations and experienced much unexpected anxiety. Even though he did not participate in two of the hardest climbs done by Terry and Hamish he felt pushed and beyond his limits. His reaction was to withdraw and observe at a distance when there was a situation that he did not think he would like or enjoy. It was in some senses a bit bewildering to him. Although he still has an active interest in rockclimbing and has continued to go practice climbing after this day, he did not enjoy the day over all. Some parts of the climbing he did obviously enjoy but he was uncomfortable with many other aspects.

At first it was very difficult to reconcile their individual reactions to what were essentially the same climbing events. An interesting challenge was thus presented - how could such different and contradictory reactions and interpretations arise from the same source? This difficulty was later interpreted in a most satisfactory manner and is discussed in Chapter 5.

This was a crucial stage in the analysis of the results as it enabled a lot of information that appeared disconnected, to be brought into perspective.

How then can we explain these different reactions to the same experiences over the course of the day? Using Csikszentmihalyi's model of Flow (1975) and Apter's Reversal Theory (1989) we can attempt to explain the events as follows:-

John: When climbing inside the level of his ability he enjoyed the experience. Although it would be difficult to say whether or not he reached a state of "Flow". When the necessary skills were not present for the level of climbing challenge offered he became anxious and did not enjoy the experience at all. He was never able to reach a position where his abilities and experience exceeded his challenge so he did not experience boredom. However, he was bored at the time when his lack of skills and ability meant that he could not participate. This can comfortably follow Csikszentmihalyi's Flow.

Hamish: When within the limits of his experience and skill he enjoyed the situation. On pushing beyond his skill level he experienced a certain degree of anxiety, but that did not become distressed as he knew that the situation

was under control and comparatively safe at all times. For most of the time the climbing was such that he was able to utilise all of his skills so at no time did he loose interest. This fits well with the Flow model except for the period when he was climbing at a level below his capabilities where flow would predict that he would experience a state of boredom. At these times, however, he was not bored. The Flow Model appears to break down in this case.

Terry: Terry experienced periods of what would be called "Flow" when the climbing challenge matched his abilities. This equates to the Flow model. There were times, however, when the challenge was much less than his ability and/or skill level. He did not experience boredom as would be anticipated by the Flow Model. In this circumstance, again flow does not offer a good interpretation of the actual situation.

As we can see from an analysis of these three interpretations, flow does not always offer an accurate representation of the existing situation. Flow relies on the concept that the level of participation in the activity will be matched by the skill level and *vice versa*. A matching of the parameters will develop into a state of flow. A mis-match will create anxiety or boredom.

In practice this turned out to not always be the case. Underutilisation of skills can give rise to a state of relaxation, where periods of relative inactivity can be accepted, with the knowledge that this is an integral part of the pattern of the activity.

Thus, high levels of arousal bring excitement when that arousal is experienced as being enjoyable. If arousal is high and experienced as unpleasant then this leads to anxiety. Flow interprets this as going beyond the skill level required for the challenge of the task. By utilising a proposed model developed as an extension of Reversal Theory this phenomena can be satisfactorily explained. This mechanism is presented and argued in the next chapter, Synthesis.

4.9 Summary

This chapter has presented the results of the research in an ordered and systematic manner with some comment and interpretation. It was also demonstrated that the comments gathered reflect aspects of motivation discussed in the "Literature Review".

The motives for climbing expressed by participants related directly to those expressed in the the literature. All of the aspects raised in the literature review were also raised by respondents. A brief comparison of some passages and comments from a selection of the popularly available climbing literature exhibited motives similar to individual responses to the present research.

The notion of enjoyment arose more with long term climbers than with others. Joy or, in particular, enjoyment of an activity is a very difficult concept to quantify. This joy is not the same as Maslow's (1970) 'peak experience'. "The peak experience ... is clearly distinguishable from joy, which ostensibly can be produced as a result of physical [or mental] effort" (Lowe: 1977, p 189). The peak experience is an infrequent occurrence whereas the enjoyment of an activity is a common occurrence.

The major point demonstrated was the evolving of motivations with length of time of participation. There was a trend toward more intrinsic motives away from extrinsic motives with increasing experience. This is possibly the most important point to brought out by the results. For continued, sustained participation it is essential that this evolution occurs as it "is a major aspect of the phenomenon of participation in a longitudinal sense, and therefore, may be more useful in understanding recreation than one-shot examinations of activities" (Schreyer, White and M^{c}Cool: 1980, p 26).

Climbers with limited experience looked for motivation from more extrinsic sources such as peer group approval, physical challenge, excitement and adventure, while the more experienced climbers moved toward intrinsic factors including enjoyment, personal satisfaction, mental stimulation and relaxation. This appeared to be a definite function of length of time of participation suggesting that "if a stable form of new behaviour toward the object [activity] is to emerge, a transformation of meanings must occur, in which the person develops a new conception of the nature of the object [activity]" (Becker: 1953, p 242). It is argued that if this transformation of meaning does not occur then the interest in rockclimbing will not be sustained.

Plate 3 - **The Climbing Experience**

5. SYNTHESIS

5.1 Introduction

In this chapter the inductive paradigm of grounded theory has been used to construct a theory of both motivation and participation. Using relevant data from the literature and the results of the research, a mechanism for understanding the motivation(s) of long term rockclimbers is proposed. This involves extending some of the concepts discussed in the literature in order to propose a mechanism for understanding the processes involved in sustained motivation.

The inductive process used for the development of this model is described fully in the Chapter 3.

The comments from the questionnaires, focus groups and interviews indicate that there is an apparent change of attitude as the climber progresses from the novice to the expert or experienced climber. When rockclimbing is initially undertaken, there is the desire for excitement, adventure and a need for external rewards in the form of approval from peer groups or friends.

As experience increases these rewards become internalised. Thus there is a progression from primarily extrinsic rewards to a dominance of intrinsic rewards. As discussed by Iso-Ahola (1989), "those who have a high degree of specialisation in and commitment to a single leisure activity have been found to look for intrinsic rewards for their involvement, such as self-actualisation, self-gratification, self-enrichment and self-expression" (p 269). More significantly Schreyer, White and McCool (1980) felt that the changing motives of a "veteran adventurer "indicate an evolution of involvement in the activities which may ultimately change the original motive for participation" (p 25). In short "the motivation for initial involvement in high adventure activities is not the same as the motivation for continued participation" (p 26). Comparison of responses from short and long term participants confirmed their position.

Deci and Ryan (1985) concluded that, in contemporary society, because "most work settings provide relatively little opportunity for intrinsic enjoyment and the experience of self determination" (p 332), the attraction to engage in an activity or sport that does provide such an experience is strong. "Truly intrinsically motivated activity may produce the experience of flow, the total, non-self-conscious involvement with the activity that yields the fullest experience and most refined performance" (p 333). This position was also supported by the research

The examination of the motivations has now brought us to the stage of a basic level of understanding of why rockclimbers climb and how their motives vary as their length of participation time increases. What is now required is an examination of how these motives explain the behaviour of climbers in terms of their climbing activities and also to explain how the movement from short to long term commitment evolves.

5.2 The Learned Response

As discussed in Chapter 4 it was found that, as the length of time of participation in rockclimbing increased, the motivation of participants changed from being oriented toward extrinsic factors to intrinsic factors. In order to present an understanding of what mechanism may be in operation, the concept of a "learned response" is proposed. In the following an argument is developed explaining what is involved in this concept and how it fits within existing theory. The learned response is a mechanism that an individual forms internally over a period of time. A period that can not be strictly defined as it is envisaged as a steady evolution that encourages a movement from extrinsic to intrinsic factors.

The concept of a learned response is not related to conditioned reflexes or conditional behaviour as discussed in the classic learning theory of Pavlov (1927) and Skinner (1938). The most analogous concept to the proposed learned response, is that of "learned helplessness" proposed by Seligman (1975) when discussing depression. What is attempted here is to introduce an alternative concept in order to explain observed behaviour[4].

The learned response is proposed as a result of working intensively with the data and attempting to understand what may be occurring. The learned response seemed to present a relatively simple way of offering a satisfactory explanation. It is proposed that the learned response is of two parts: a learned physical response and a learned psychological response. These two parts are not totally independent as will be explained in the following discussions.

In the Chapter 4, following the description of a typical participant observation, it was shown how the uncritical application of the flow model of Csikszentmihalyi did not always match the reported results. The flow model did not correctly describe how individuals could experience enjoyment if the task that they were undertaking

4 Note:I am currently unsure of the exact origins, if any, of the term 'learned response'. Hence I cannot assign any

required an input above or below their abilities and/or experience. According to the Flow hypothesis, an individual in this state should experience boredom.

The application of Flow operates on the premise that when an individual is participating in an activity where the skill level required is commensurate with his or her ability then a state of Flow is achieved. If the skill required is less than is available then the participant becomes bored. If the skill and experience available is much less than that required to match the task then the participant becomes worried. This worry can rapidly progress to a state of anxiety if the activity continues at that level.

Reversal Theory proposes that if a participant is in a state of high arousal coupled with pleasant feelings then the overall mood is one of excitement (this is somewhat similar to a state of flow). If the arousal levels fall then, according to the conventional application of Reversal Theory, the pleasant feelings should start to decline until the mood turns to boredom - similar to Flow.

To explain the observed effect and the apparent inadequacy of Flow, it is useful to apply a possible extension to Reversal Theory. There would appear to be no theoretically substantial reason why, as the arousal level falls, the Hedonic tone cannot remain at a "pleasant" level. This would be a transition that would need to be learned by the participant as, according to the conventional understanding of Reversal Theory, it would not be a natural transition or response. They would, in effect, learn that enjoyment is still able to be maintained while their arousal level falls, until they reach a state of relaxation, which is also pleasant but has low arousal. (see Figure 5.1, p 147)

If Reversal Theory is extended to permit a transition directly from an "excitement" mode to a "relaxation" mode as the arousal level falls then, this is the equivalent of maintaining the Hedonic tone at a "pleasant" level. Thus, rather than fall back to a mode of "boredom" as predicted by the direct application of the flow model and the current, conventional interpretation by Reversal Theory if we stay on the "excitement seeking" curve, we can now switch to the "arousal avoidance" curve while maintaining a "pleasant" Hedonic tone. This brings a state of "relaxation" and satisfactorily explains the observed situation.

Thus by a simple extension of Reversal Theory to allow for a "reversal" that has not been previously discussed with any detail or conviction (Apter; 1982, p 93), a number of apparently contradictory observations can be explained. This new transition is illustrated in Figure 5.1 (p 147).

It appears, and this is supported from further results presented below, that this is a transition or reversal that becomes possible for the individual concerned after a great deal of experience has been accumulated while climbing. This can be interpreted as time spent at the activity and produces a "learned response" or reaction. The transition from excitement to anxiety is a "natural" response and equates to fear of a situation that is out of control. This anxiety or fear can either be fear of a real physical danger and injury or, alternatively, perceived as a danger to the individual such as embarrassment in front of an audience or peer group. It is the situation experienced when extending one's "comfort zone" (Harris and Harris: 1995, p 135).

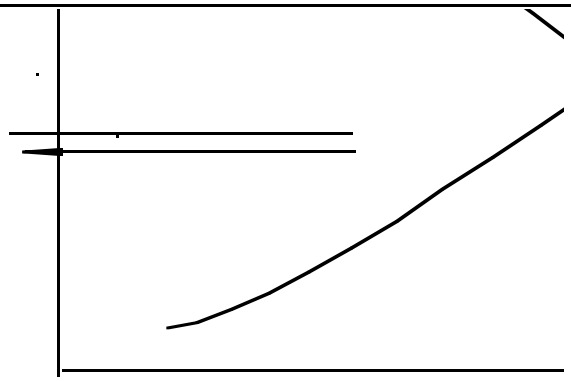


Figure 5.1 - **Modification to Reversal Theory**

This comfort zone consists of the physical and mental constraints within which an individual feels comfortable and performs every day tasks. For example, a non-rockclimber would feel uncomfortable being on a vertical rock face, while the experienced climber would not feel such discomfort. The climber would be operating within his or her comfort zone while the non-climber would be well outside their comfort zone. The concept of the comfort zone was developed through transactional analysis (Berne: 1964). The comfort zone can be extended by gradually widening one's experiences and learning to feel comfortable in a variety of new or previously unfamiliar situations. One practical example is learning to comfortably participate in public speaking through practice, extending one's comfort zone to include being able to talk in front of large groups.

5.3 The Learned Psychological Response

In the same way that there is a learned physical response so too there can be a learned psychological response. Foucault (1977) discussed how rules, ideas and conventions are "internalised" by the individual in the society. This means that what was once an externally applied standard becomes, over time, an internally applied standard. Foucault's discussion of 'docile bodies' (p 135) applies this concept to modern society, showing how this can be used to control actions of the individual.

This is essentially the mechanism that appears to be in operation in the current situation. Novices expressed some of their motives as their wish to "share my friends love of the sport" and "enjoy rockclimbing friends company". While a long time participant demonstrated his internalisation of the 'rules' by stating that he climbed "for the satisfaction of doing hard sequences high up, with some sort of style" and "to create routes that have high quality".

Foucault (1977) also described a process known as "normalisation". This is where actions, goals and ideas can be graded in a sequence of measurable intervals and then distributed around a 'norm', the norm being the standard reference in use by the society for the particular concept under consideration. The second set of statements by the climber in the above paragraph refers to a typical set of values or norms that are constructed by climbers during this process of normalisation and internalisation of responses.

These mechanisms have been discussed at some length by other authors including Rojek (1985), Rabinow (1986) and Foucault (1977). The comments gathered from discussions show that there is a like process in operation here creating a learned mental response.

Csikszentimihalyi (1975), when proposing the concept of flow, described how people who were "deeply involved in activities which required much time, effort, and skill yet produced little or no financial or status compensation" (p 179) received their enjoyment from "some experience inherent in doing the activity, rather than some goal beyond the activity itself" (p 180). They had gone through the process of internalisation and developed their own mental response to the activity.

Csikszentmihalyi further suggested that, through the development of intrinsic motivation, and thus the flow process, "a person who learns to flow with confidence wherever he or she is becomes both truly autonomous and truly connected with the world" (p 206). This, to some extent, also accounts for the almost semi-religious character of the comments that were some times offered; "that climbing helps you to understand [the] way of life better"; "climbing is a sport that a person can find inner strength, that can be used in their personal or working

life"; and "on climb and in life [it] puts the rest of existence in perspective (of some sort?)".

As part of the life cycle there is also the necessity for an individual to develop their leisure activities in a manner so as to optimise the benefits they may gain. As responsibilities develop with ever changing social, family and work commitments there may be less time to devote to leisure activities thus "the preferred type of leisure activity may not change, but the meaning or purpose of the activity may change across the life cycle" (McPherson: 1991, p 427). This could also indicate that at this juncture, an individual may need to reconsider their motives for participation. So that "even with a high degree of recreation specialisation it is possible to maintain balance among leisure, work and family" (Iso-Ahola: 1989, p 267).

5.4 The “Learned Physical Response”

This "learned response" in being able to make the transition from "excitement" to "relaxation" can be at least partially explained through the physiological process known as 'Motor Engrams' or simply 'engrams' (Goddard and Neumann; 1993). A motor engram is a form of reflex action or physical adaptation of the body to a particular stimulant. This process is similar to the concept in learning theory of a "motor code" (Avery and Baker: 1990, p 165). Goddard and Neumann extended the theory to specifically examine the climbing situation.

Simplistically, for example, when a young child touches a hot surface the nerve receptors at the site detect what is happening and transmit an appropriate message to the brain. In the brain there is a certain degree of complex processing carried out - the perception of heat then the registration of pain. The brain then instructs the muscles in the area to act in such a manner as to avoid the hot object. As the child becomes older the motor control system reacts more rapidly to such situations and a hot object is actually dropped or further avoided before the onset of pain. This is because the signal processing is no longer carried out in the brain but the action is controlled at a more local level.

A second example is the way a touch typist 'remembers' the location of the letters and numbers on a keyboard. The typist develops a motor code or motor engram in order to remember the specific location of each character.

A similar process takes place with a rockclimber though in a much more complex manner and over a longer time frame. The function of engrams and rockclimbing are well explained by Goddard and Neumann (1993).

When a climber comes to carry out a movement or series of movements while climbing, the muscles react in accordance with a feedback control system through the central nervous system (CNS). On the initial attempt of a particular movement, the movement tends to be slow and possibly a little "jerky" due to the complex series of processes being undertaken by the CNS. If this movement is repeated the movement becomes smoother and more controlled. This is the result of the body learning the series of controls that are required creating a motor engram. The more of the control that is carried out at the local level, closer to the muscle that must perform the appropriate action, the less processing is required by the brain.

The process is similar to learning a dance step or routine. Initially much concentration is required until the steps are learned. It is not until this stage that, while dancing, a conversation can be carried on as so much concentration is required initially for simply carrying out the correct sequence of dance steps. Again a simple motor engram is established by the CNS in order to simplify what becomes a routine task. In a simple dance routine the engram is rapidly learnt and the movement improves rapidly with practice. A more complex dance requires more time. Musicians go through a similar process in this case using fingers, breath control etc, in order to be able to rapidly interpret written music into its aural form.

When a computer plays a game of chess it does so by analysing all of the possible moves and their consequences for the remainder of the game. By focusing on the required outcome the computer chooses a move that it sees as most favourable. The reason that a computer can play in this way is through its extremely rapid processing capability. This is the reason that more modern computers are more successful than their earlier counter parts. A grand master chess player could never hope to play chess in this manner. They play by becoming familiar with particular sequences of moves. These sequences of moves are contained in the three main sections of the game: the opening; the middle; and the end game. This is a process of learning motor engrams. The more they play the more sequences the player learns, the easier it is to learn. A computer is not yet capable of such learning or complex analysis.

The process of learning motor engrams also occurs with rockclimbing. A single move or series of moves can be learnt through practice and the movement perfected. Rockclimbing, like dancing, playing a musical instrument or chess

consists of a sequence of movements linked to make a whole. When a rockclimber attempts an unfamiliar climb there can be no pre-prepared engram so the rockclimber must draw on his repertoire of stored engrams. Initially the movement is not so controlled and deep concentration is required, but if the sequence is repeated the movement begins to flow.

This "learned" aspect is brought out from comments of respondents to the effect that they rockclimb because they "enjoy the physical movement", "just like moving over rock", for "the physical movement over rock" or for the "pleasure of rhythmical movement". These feelings were repeated many times with only slightly different phrasing of the same words, in many cases exactly the same words. It is a compelling argument that it is a real effect.

Two excellent examples of engram in operation came to light during the study. The first was the result of direct questioning in relation to engrams while the second came as a spontaneous response when talking to a climber.

The first example arose as the result of an attempt to see if engrams were an applicable concept. A touch typist was asked if she could draw the layout of a wordprocessor keyboard. This question arose as a direct result of the previous discussion of how typists could utilise engrams to remember the keyboard. This particular typist said that she could not draw a keyboard - then how did she manage to touch type? She responded by saying that she somehow looked at the letters/words on the page and automatically hit the correct key on the keyboard. No conscious process of ‘if I see this particular letter then I must hit this key’ was involved. In fact, she further explained how at times she could actually be thinking about something else all together but still type a document correctly. The typing process was quite an unconscious act.

The second example of the use of engrams came when discussing bouldering with a climber of about twenty years climbing experience. He explained how he had recently returned to a bouldering area he had not visited since his days while studying at university, about fifteen years previously. At that time he visited the area frequently to practice climbing and to keep fit for climbing. During his recent visit he found that although he knew where particular climbs were he could not knowingly stand at the base of a climb and indicate where all of the hand holds and foot holds (moves) were.

However, when he started to climb he found that the moves were familiar and that he could place hands and/or feet in the correct positions in order to do the climbs. This is particularly difficult with bouldering as bouldering by it’s very nature tends to

consist of difficult climbs which can rarely be ascended on the first attempt. Most require some practice. What is even more interesting in this climber,s particular case is that he now climbs with one artificial leg. The leg was amputated as the result of a motor vehicle accident and was lost from the middle of the lower leg.

Both of these examples show the result of the development and unconscious use of an engram to carry out familiar tasks. It made the performance of the task much easier and indicates the development of a particular level of skill. Clearly the creation of engrams will tend to be more developed in the more experienced typist or climber - the climber who has a sustained motivation for climbing.

While the existence of motor engrams do not in themselves explain why sustained motivation exists, they do explain how the more routine tasks can be ‘automated’ to a large degree and thus allow more effort and energy to be directed toward the greater goals of the activity. With rockclimbing, for example, the precise mechanics of the individual moves need not be a focus of detailed attention and the major reward can come from the flow of climbing. The same is also true for rope work, belaying and other associated activities.

Conceivably there are an almost infinite number of different movements required to cover all pieces of rock, as no two will ever be the same. However, certain similarities and classes of movements can be constructed and over a period of time a repertoire of engrams can be built to suit almost any occasion. The more practice the climber has had the wider the repertoire. Developing this repertoire must of necessity take many years. The larger the repertoire the more easy will be the climber,s movement and flow over the rock and the further she/he will be able to look ahead on the climb to anticipate future difficulties. Her/his mind will not be absorbed in solving the current problem.

The skill in building up this repertoire of engrams is to a large extent independent of pure physical strength. Strength will assist to a limited degree and from then on it is the control of movement and the ability to think more widely while climbing that counts.

After a number of years of building up a repertoire the rockclimber is able to approach climbing in a more relaxed manner. When a climber is climbing in the area of Csikszentmihalyi's flow, where the skill level is equal to the level of the given task, the climber can move in a manner that is more free of the need for direct control using his engram repertoire.

A climber of twenty years experience stated that "I see rockclimbing as a very relaxing pastime". This indicates that there is a sense of comfort with the activity that comes from familiarity and the learned reactions that mean that all of the effort during climbing need not be spent concentrating on the process itself. His 'engram mechanism' is handling most of the situation.

When outside of the area of Flow the climber can be practising and/or perfecting further engrams in a controlled, safe manner without the need for any personal risk. Thus he can still enjoy the climbing and not become bored as predicted by Flow.

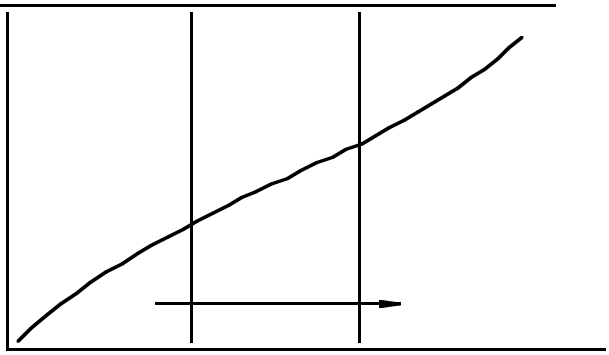
It is not suggested that flow is unnecessary. On the contrary, it is Flow that helps us feel "a sense of exhilaration, a deep sense of enjoyment that is long cherished and that becomes a landmark in memory for what life should be like" (Csikszentmihalyi: 1994, p 3). It is Flow that makes participation worthwhile and this experience creates the desire for sustained participation. The development of the extension to Reversal Theory allows the interest to be carried over between periods of Flow. Flow gives the incentive to control our experiences and is the key to the 'psychology of happiness' (Csikszentmihalyi: 1994).

5.5 The Extrinsic - Intrinsic Continuum

With the use of Figure 5.2 (p 155), the concept of an Extrinsic - Intrinsic continuum can be discussed. The objective behind the presentation of this concept is to visually illustrate, in a simple manner, the process of development of motivational factors from primarily extrinsic in the early stages of participation to intrinsic after sustained participation.

As the length of time of participation increases there is a gradual change from the initial extrinsic factors to intrinsic factors. The time scale of these changes will vary between individuals. For sustained participation the ratio of intrinsic to extrinsic factors will gradually increase. This relationship may not be linear but it will tend to increase with respect to time.

Figure 5.2 - **The Extrinsic - Intrinsic Continuum**



With this varying ratio it is suggested that there can be identified three participatory phases: *dependence; transition;* and *independence (after Hayllar, 1995*[5]*)*. When extrinsic factors dominate we are in the phase of dependence - when the rewards of participation come mainly from external sources. Independence, with the dominance of internal factors, sees the individual participation in his or her own right, making independent judgements concerning how, when, where and at what level to participate. The cross over between these two phases, where external and internal factors are present in roughly a balanced ratio, represents a period of transition where the motives for participation are undergoing a significant change from extrinsic to intrinsic motivation. This is probably the time during which possible long term commitment comes into play.

Just as there may not necessarily be all extrinsic factors involved with the commencement of an activity so there will probably never be a complete conversion to intrinsic factors. In fact if we accept Maslow's "hierarchy of human needs" (Avery and Baker: 1990, p 397) there will always be a requirement for some external peer group approval.

5.6 Summary

This chapter has brought together the ideas and concepts uncovered by the research process. To explain the motivation of rockclimbers who have been rockclimbing for many years a transition has been proposed within the context of Reversal Theory - a transition from a state of "excitement" to one of "relaxation". This is a transition which does not appear to have been previously explored. The proposal presents us with a mechanism that explains the research observations in a clear and simple fashion.

It is a process that involves similar aspects to both Attribution Theory (Heider: 1958, Iso-Ahola: 1976 and Ewert:1989) and the Conceptual Model of Recreation Development (Ewert:1989). It is an evolutionary process where motivational factors progress from domination by extrinsic factors to domination by intrinsic factors. It is a time weighted process and is a function of the individual.

The process is an internalisation of the rewards that a climber perceives from climbing. Part of this mechanism of internalisation appears to be actually learning to enjoy climbing through a learned response. This learned response contains both psychological and physical aspects, both integral to the process.

The learned psychological response can be successfully described by a modification to Reversal Theory through the addition of proposed direct transitions between states of excitement and relaxation. The learned physical response involves a physiological learning process known as engram formation, where physical actions and responses are no longer processed in the brain but are processed locally, closer to where the specific motor activity occurs in the body.

The time scale involved for this learning to occur could not been reliably indicated by the research results. The time period involved, as suggested from the analysis of comments from the current study, would seem to be in the order of ten to fifteen years of active participation. However, this is certainly not an implication that this length of time is a necessary condition. For example, perhaps through the use of various techniques such as a well designed program that encouraged the support of intrinsic factors, the time period could be condensed.

It would appear that this transition from extrinsic to intrinsic factors must take place if interest is to be sustained in rockclimbing. Certainly the research results from the current project indicated that this was so. Perhaps this process of the 'internalisation of rewards' acts so as to 'lock people in' to the activity and becomes a form of "positive addiction" (Egger: 1979, p 7).

Once the mechanism for participation has been internalised ,it is a relatively simple process to fit the activity into the life cycle. In the case of some dedicated climbers it is the other way around in fact, where the life cycle is fitted in around the climbing. The activity has become an important part of life and participation can be modified to parameters such as life style, family and social activities. The image of being a climber has become fixed in the definition of the self.

The confirmation that motivation for continued participation in rockclimbing varies from initial motivation has important consequences when extrapolated to the general case. These are addressed in the Conclusion.

Plate 4 - **The Climbing Act**

6. CONCLUSION

6.1 General

The research undertaken for this project examined the motivations of those individuals who have participated in rockclimbing for up to forty years. When these motivations were compared to those who had been climbing for shorter periods it was verified "that the motivation for initial involvement in high adventure activities is not the same as the motivation for continued participation" (Schreyer, White and McCool: 1980, p 26). Comments from participants clearly demonstrated this change in motivation over time. The longer the individual stays with the activity the more the enjoyment of the activity is emphasised. This expression of enjoyment is in contrast to the adventure/excitement explanations that appear to dominate in the early years, although this is not to suggest that excitement may not enjoyable.

The need to build one's self esteem and build one's image with friends and climbing colleagues, appears to lessen with time of active participation (other factors may also come into play here, for example age and maturity). The enjoyment and the satisfaction of intrinsic rewards grows, while the requirement and need of extrinsic rewards diminishes. This is in keeping with much of the theory discussed, particularly that by Iso-Ahola (1989). "Those who have a high degree of specialisation in and commitment to a single leisure activity have been found to look for intrinsic rewards from their involvement" (p 269).

This progression is gradual and is an internal process of the individuals themselves. It is not an externally driven mechanism controlled by social forces but rather an internal mechanism powered by the individual's experiences and observations. Those individuals who do not internalise the enjoyment and rewards of rockclimbing soon cease the activity.

Of the individuals who commence rockclimbing relatively few continue for many years. The average time of participation of McIntyre's (1991) surveyed population was only three years with the average age of the climber between 26 and 30 years. McIntyre's population was randomly chosen at several Australian climbing sites and would represent the typical climbing population at any instant in time. As discussed by Hedges (1986) there is a lot of uncertainty in discovering the causes that lead to an individual's cessation in an activity as it is very difficult to sample the specific population concerned. Thus there can only be extrapolation and conjecture concerning those who cease rockclimbing.

With increasing time of participation the individual "learns" to enjoy the activity itself. The longer an individual participates in an activity the more enjoyment develops from participation. This "learning" process assists in developing the internalisation of rewards from extrinsic to intrinsic, permitting rockclimbing to be enjoyed for all of its aspects: the exciting and adventurous; the difficult and challenging; the calm and relaxing. The learning process includes being able to learn to relax during certain phases of the activity rather than becoming simply bored because the standard of skill and/or experience required is less than that held by the individual. So rather than alternately experiencing highs and lows, as predicted by some models of participation, the overall experience is one of enjoyment.

When intrinsic factors come to dominate, there is a deeper and more committed participation in the chosen activity. It is the game itself that is enjoyed rather than the associated activities and in this respect there is less opportunity for substitutability with another activity. The specific activity is 'unique' for that individual.

The position that this research has verified is similar to that proposed by Becker in

> *that the presence of a given kind of behaviour is the result of a sequence of social* [and mental and physical] *experiences during which the person acquires a conception of the meaning of the behaviour, and perceptions and judgements of objects and situations, all of which make the activity possible and desirable. Thus, the motivation or disposition to engage in the activity is built up in the course of learning to engage in it and does not antedate this learning process.* (1953, p 235)

The mechanism of learning is explained through the development of a new aspect of Reversal Theory. This development was found necessary as existing theories were unable tocompletely describe the existing situation. A simple extension of Reversal Theory could explain the observations.

There is no particular feature of this research that must restrict these findings to rockclimbing. With appropriate considerations, as with any theory, the current findings could be generalised to many other areas and activities. Perhaps this offers an opportunity for future research.

6.2 Implications

What are the possible implications of this internalisation process? Typically, any organisation interested in maintaining the participation rates of members for what ever reason should be aware that for an individual the factors for continued participation must develop from extrinsic to intrinsic. This knowledge could give a different structure to the organisation's planning policy. If programs are structured such that this developmental process is encouraged, then it is possible to ensure that interest in the organisation's activities are maintained by catering to the varying needs of the members.

Consider three examples:-

1) *The [US] Centres for Disease Control estimates that 50 percent of those who enrol in a [fitness] program drop out within three months ... health spas expect a majority of their members who sign up for a year or so to drop out ... exercise psychologists can predict fairly well those who will stay in a program and those who won't. What they haven't figured out is how to change that outcome. They've identified who is least likely to succeed, but they're unable to prevent that failure.* (Sheehan: 1992, p 11)

Application of the knowledge that the rewards for participation must be internalised in order to encourage long term participation may influence program design and lower the drop out rate.

2) In social planning policy for an ageing population there is often a desire to maintain a continued level of participation in leisure activities in direct proportion to the ageing populations' increasing leisure time. For example Maguire observed that:-

By maintaining a regular exercise program, people can substantially prevent or defer some of the physiological changes associated with ageing. Scientific exercise programs can be particularly beneficial in retirement communities. (1995, p 64)

The advantages of overall better health can be readily drawn for both the individual and society in general. Better health means better quality of life and less pressure on medical resources. Hence by internalising the desire for regular exercise, the quality of life for that individual may be improved.

3) For industrial organisations who need adherence to good occupational health and safety practices for the health and safety of their employees, an internalisation of the necessity for safe working practices will be of benefit to all. In the long term

employees will understand why they should observe good working practices in the interests of their own welfare; and the employer will find that there will be less difficulties with employee health and the ongoing occupational health and safety education programmes will be more readily accepted as their purpose will be more readily understood.

How then are we to generate interest and motivation to undertake and sustain continued participation? Rather than attempting to encourage individuals to take up a new activity, which has been shown to be a difficult task (Iso-Ahola: 1980, p 171), it may be better to find ways to maintain or increase interest in activities already pursued. An understanding of the necessity for an internalisation process will assist in the design of appropriate programs.

Fitness programs are perhaps the prime example of the difficulty in maintaining motivation in individuals. It has been said that "most fitness programs have purpose, but no meaning" (Sheehan: 1992, p 185). What we need is "an additional element - the accomplishment of some task, the attainment of some goal" (p 185) preferably an internal goal created ultimately, by the individual. It may be as simple as the gaining of a 'personal best'. We need to develop a purpose and a meaning so that the activity becomes part of the life style and the life cycle.

A possible common element in activities that promote sustained interest is that there is no particular end or conclusion from continued participation. It is a ‘complex’ activity. As interest in the activity grows so both the participant and the activity develop in tandem. Complex activities develop complex values and perhaps this complexity gives rise to sustainability by creating a situation where there is no definite end point. Thus it may be, for example, that the nature of the activity *per se* and not simply the enjoyment gained from the activity, explains the sustained motivation. This is an area for possible development and further fruitful research.

In summary, this research has helped to develop a better understanding of the motivations of long term participants in the specific activity of rockclimbing. At the same time the opportunity has been used to offer the conceptual development of a mechanism for the understanding of the motivation for long term participation that is able to be generalised to other activities. Further research awaits in the areas of how this internalisation process occurs and how best to apply this new knowledge.

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8. APPENDIX

8.1 The Survey Questionnaire Forms