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EXPLORING ROCK CLIMBING DISCOURSES

By

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Abstract

Climbing has been part of human nature since time immemorial, our ancestors used it to escape predators, to flee from flooding valleys, to gather food and to move to new territories. However it was not until the middle 1700's that man started to use climbing not as a means to ensure survival, but as a source of pleasure and desire to climb and explore.

For almost two centuries climbing has evolved through, what has often been referred to as a trial and error method, into a state of the art, modern day sport with various sub disciplines like sport climbing, trad - climbing, ice climbing, free climbing and bouldering. In its purest form it is one of the most awe inspiring sports to watch and take part in, and for those select few that dedicate their lives to it, it is a means to make a living, and a way to live on into eternity.

Over the past 15 years climbing has become a widely practised and one of the fastest growing sports around the world, and is practised by people from all walks of life, from pre-primary school children right through to retired pensioners, from unemployed students to the most successful business men and women. With this growing interest among the population there also came a growing interest in the use of climbing for various other purposes like psycho-therapy, rehabilitation, team building. But more importantly, for this study, it has urged the researcher to ask what are the discursive resources and strategies that are employed by modern day climbers, seeing as the climbing community consists of such a large variety of people.

This study was done from a Discursive Psychology perspective, and was strongly influenced by the work of Jonathan Potter and Derek Edwards, as well as the work of the Rhetoric Group from Loughborough University.

The Discursive Psychology approach focuses on management and accomplishment of action and interaction through talk. Discourse is viewed as a resource that functions to accomplish action and Discursive Analysis focuses on the manner that discursive resources are being employed to achieve certain actions in interaction.

For Discursive Psychology it is important to view both the material context and embodiment as important in the construction of action. So too in Rock Climbing are these two aspects very important and very relevant because of the prominence of physical activity in the sport. The research focused on how climbers talk during climbing and what discursive resources and strategies they employ during rock climbing discourses. The most prominent of these resources and strategies that were found in the analysis were laughter, pauses and delays, intensifiers (words that are used to emphasize and pinpoint other words), loud uttering of words, change-of-state tokens, disclaimers, discourse markers, extreme case formulations, agreement-implicative acknowledgement tokens, hedge words / devices, speech-overlapping, previous experiences, and footing.

This research hopes to offer alternative explanations in sport and psychology, by studying naturally occurring conversations between climbers, instead of the more traditional pre – and – post experience testing that has dominated studies in psychology for so long.

Key Words: Rock Climbing, Sport Climbing, Discursive Psychology, Discursive Analysis, Sport Psychology, Social Constructionism discourse, action, context, , discursive strategies, discursive resources, interaction, talk, discourse.

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Chapter 1
Introduction

The aim of this chapter is to place the research project in context in terms of the problem and motivation for the study, the methods of research within the fields of psychology, sport psychology, and rock climbing, the question to be answered, the goals of the project, and also the outlining structure of this research report.

1.1 Problem

This research project aims to explore rock climbing discourses, and more specifically the discursive resources and strategies which are employed during rock climbing discourses from the theoretical perspective of Discursive Psychology (DP).

However, before the researcher can answer this question or further explore discourses in rock climbing he feels that it is primarily necessary to give a conceptualisation of what *discourse* is and how it is viewed in psychology.

In the traditional, linguistic sense of the word, discourse was defined as any utterance longer than a sentence. The term discourse in psychology can be defined as the use of spoken, written and signed language, and any form of multi-modal / multimedia communication. Although it was traditionally defined, as stated above, to consist of any utterance longer than a sentence, presently interesting phenomena are considered to be anything from silence, to a single utterance (e.g. one word), or even a set of articles or a conversation (Ellis-Christensen, 2004; Reber & Reber, 2001).

In essence, discourse is any form of language (talk) and / or communication that exists, and any form of language or communication has a discourse or various discourse(s).

The researcher will further explain and investigate the views held by psychology about discourse (talk and language), and what the specific view of the researcher and this research project is on discourse, and how this view will shape and influence the project and research report. These views will consequently be discussed in terms of Positivism and Social Constructionism.

1.1.1 Discourse in Psychology

Modern-day psychology can be loosely classified into two approaches: traditional positivistic epistemological psychology, and approaches that fall within the rubric of Social Constructionist thought.

i) Positivism

In traditional or mainstream psychology, language is viewed in a very different way than viewed by the Social Constructionist approaches i.e. DP & Discourse Analysis (DA) (Potter, 1996).

In traditional psychology, language is regarded as representational, in the sense that the only function and capacity of the written and spoken words are to represent that to which they refer. The easiest way to explain this representative nature of language is to use the metaphor of a mirror. A mirror reflects certain aspects of the world onto a smooth surface, only in this metaphor the surface is not glass, but language. So language reflects how things are in their descriptions, representations and accounts (Potter, 1996).

Language is traditionally seen as little more than a vehicle used to convey underlying beliefs and meanings, because this traditional use of language treats descriptions, beliefs and accounts as factual, fixed and literal, just as a passive reflection in a mirror (McGannon & Mauws, 2000).

ii) Social Constructionism

In this section, DP will be discussed as a part of Social Constructionism. The reason for this being that DP draws on many different fields, most of which also falls within the field of Social Constructionism, and the 'requirements' for Social Constructionist thinking are also evident in DP.

The question that probably arises is: "What is Social Constructionism and how does it differ from mainstream / traditional psychology?"

Gergen (2004) gives a very apt explanation of Social Constructionism and its related fields, as well as a critique against traditional psychology and its view of language and discourse. Although this section deals with traditional psychology, and not Social Constructionism (which is dealt with in the next section), the researcher deems it appropriate to refer to this article in order to set the stage for the section on Social Constructionism.

Firstly, Gergen (2004) states that it is important to realise that the traditional (positivist / empiricist) view of knowledge to which the field of psychology is very much committed, is largely lodged in metaphysical dualism. This means that we have to assume a real, objective and material world which is 'somewhere out there' and a psychological world with an experiencing agent that is 'in here'.

In this view, knowledge is only achieved once the individual agent has gained mastery over the complexities of the material world, and this knowledge is then reduced to theories and descriptions of which the sole use is that of communication.

Secondly, for the Social Constructionist (DP, DA) the action of communication is not merely an afterthought or something you can do only once you 'know', but it is considered to be the germinating process for everything we consider to be intelligible. It is through the co-ordination of human action that language emerges, and it is through language that we come to agree on 'what there is', ' how it functions', and 'why it is possibly good or bad.' (Gergen, 2004).

According to Gergen (1985) and Burr (1995), there is no single feature, which could identify the position of the Social Constructionist. Any approach, which has at its foundation one or more of the following assumptions and critical differences from mainstream psychology, can be classified as Social Constructionist:

1. **Critical stance towards knowledge**

   It invites us to take a critical stance against the idea that our observations of the world yields its (the world's) true nature to us. Therefore, it could be said that Social Constructionism is in opposition to ideas such as Positivism and Empiricism, which state that observation of the world around us will lead to the revelation of its true

nature, and it cautions us against our assumptions of how the world appears to be (Burr, 1995).

Because the world and its people are the product of social processes and interaction, it is impossible for there to be any predetermined or given nature to the world and its people. In other words there are no inherent 'essences' inside objects or people that make them what they are (Burr, 1995).

Furthermore, according to Burr (1995) and Gergen (1985), all our knowledge is derived from our looking at the world from some or other perspective. These perspectives are in the service of certain interests rather than others. Therefore, knowledge is not a result of our direct perception of reality, but rather the result of our own constructions of a reality.

2. History and culture

The categories and concepts we use, as well as the different ways in which we understand the world, are historically and culturally created and specific. All the categories and concepts we use to gain an understanding of the world i.e. men and women, music, lifestyle and so forth are dependent on where and when in the world we live.

These categories and concepts are not only culturally and historically specific, but they are also products of a particular culture and time period, and are dependent upon the social and economic arrangements of that culture at that specific time (Burr, 1995).

Because all forms of knowledge are historically and culturally specific, the knowledge generated by the social sciences must be historically and culturally specific as well. The theories and descriptions generated by psychology are therefore also time and culture bound and cannot be taken as a once-and-for-all explanation of human nature.

3. Knowledge in social processes

The Social Constructionist's view of knowledge proclaims the belief that knowledge is created among people. Our versions of knowledge are being fabricated as a result of

our daily interactions in social life. Social interaction of all kinds and especially language, is of the utmost importance and relevance to Social Constructionism (Burr, 1995).

Our understanding and knowledge does not emanate from an objective reality, but from the culture into which we are born and where certain categories and frameworks already exist. These categories and frameworks are acquired by all individuals living within that culture and while they develop the use of language. Constant repetition by all concerned within that culture strengthens these categories and frameworks. Social Constructionism holds that the way we think, and even the categories we use, are provided by the language we use, therefore language is a necessary pre-condition for thought (Burr, 1995).

Knowledge is thus not seen as something a person has, or does not have (as in traditional psychology), but rather as something that people do together in processes (Burr, 1995).

4. Knowledge in social action

We could discuss various possible constructions of the world and these understandings may take many different forms, but each of these 'negotiated meanings' or constructions also brings with it, or rather invites, a different kind of social action from those involved (Burr, 1995).

By placing the focus on the everyday interactions of people and viewing them as the producing agent of our knowledge, it becomes evident that language is more than a mere way of expressing ourselves. When people talk, the world becomes constructed, and so the use of language is a form of social action (Burr, 1995).

1.1.2 Discourse in Sport Psychology

In sport psychology, as is the case in psychology, we also find two opposing views on the nature of language, human beings and the research methodologies that are used. Let us first define what sport psychology is, what it aims to do and the role played by traditional psychology in sport psychology. Consideration will then be given to whether, how and

why Social Constructionism could and should play a bigger role in the field of sport psychology.

The field of sport psychology is both academic and service oriented. In other words, it is not only aimed at theoretical knowledge, but should also comply with the practical needs of both coaches and sport practitioners.

Not only is sport psychology aimed at the teaching of various psychological techniques and strategies, such as goal setting, imagery, and concentration skills, but it also aims to deal with aspects related to effective coaching and sport participation and the psychological difficulties resulting from injuries, burnout, retirement from sport, as well as the psychology of exercise and persistence.

i) Positivism

In their book *Foundations of Exercise Psychology,* Buckworth and Dishman (2002) provide an introduction into the foundations of sport and exercise psychology. According to them, the field of sport psychology, just like traditional psychology, is historically defined partly by dualism and partly by monism, which holds the view respectively that mind and body is separate, or that mind and body is not separate but interdependent..

In later years the field was also influenced by behavioural and social approaches to human behaviour, which to this day has exerted a great influence within the field of sport psychology. In traditional mainstream sport psychology, the focus is on the behaviour of people within the sport and exercise environment. In addition, the knowledge gained from studies in the field are used to explain behaviour, to predict, and to change behaviour (Buckworth & Dishman, 2002). According to this more traditional view of sport psychology, the Positivist / Empiricist views of the traditional mainstream psychology state or assume that there is an objective reality that can be understood and predicted.

According to Locke (2004) research within the sport sciences has traditionally been a realist enterprise that has endeavoured to produce *a priori* knowledge about that which could possibly enhance sports performance and it has also more often than not made use of quantitative methodologies. This realism in traditional sports science research

holds that there is an objective, and unchanging reality, and that we can make accurate assumptions about this reality (Marks & Yardley, 2004).

Within the existing sport science literature, we also find that an overwhelming reliance exists on questionnaires in order to uncover psychological constructs such as motivation, thoughts, cognition, attitudes, and emotional states. Research in this field includes the work of Jones and Swain (1995), and that of Amorose and Horn (2000).

However, the extensive use of questionnaires in this regard is not without issue. Criticism on the extensive use of questionnaires in sport science research regards the tapping into an epistemology of Positivism and Realism unacceptable. In other words, the extensive use of questionnaires endorses the assumption that human beliefs, experiences and behaviour are processes which have the status of entities that are sufficiently stable in so far as that they can be accurately reported and measured (Marks & Yardley, 2004).

The use of questionnaires and quantitative methods can also be criticised on the basis that they are reductionist in the sense that the topic to be studied is predetermined at the point of data collection, with the result being that it does not allow for participants to explore their own perceptions of an issue any further (Locke, 2004).

However, just as in psychology, we also find an opposing view offered by Social Constructionistic approaches to the study of discourse in sport.

ii) Social Constructionism

Qualitative approaches, such as DP, on the other hand, allow the researcher more freedom and scope to explore responses in detail. The researcher also feels that it is within this 'freedom' aspect of qualitative, and especially DP approaches, that there lies a major positive attribution that can be made by these methodologies: the traditional use of questionnaires, by implication, has led to 'before-the-fact' and 'after-the-fact' research, where participants are requested to fill in questionnaires before or after they have had a specific experience. Whereas qualitative approaches, such as DP, open the possibility of 'during-the-fact' research, because it enables the researcher to gather data from participants while they are in the process of an experience.

Traditionally, very little attention is afforded to the role of Social Constructionism and discourse (language) in sport psychology. The researcher could only find a handful of studies conducted from this perspective i.e. Findlay and Faulkner (2003), Findlay and Faulkner (2002), Locke (2003), Locke (2001), Jimmerson (2001), McGannon and Mauws (2000).

In recent years many discussions were held on what qualitative perspectives can contribute to the discipline of sport science (Biddle, Markland, Gisbourne, Chatzisarantis & Sparkes, 2001). Although qualitative methodologies can be viewed as up-and-coming in the field of sport science research, literature in this field is still being dominated by quantitative methodologies, with only 84 out of 485 published research articles, over a decade (1990-1999), in four major sport psychology journals being done from a qualitative perspective (Culver, Gilbert, & Trudel, 2003).

In addition, an ever-increasing acknowledgement and interest exist in the social aspect of sport, and its social significance. Several textbooks have also been published which relates more specifically to the social and interactional aspect of sport and exercise. Good examples of these are *The Social Significance of Sport* (McPherson, Curtis & Loy, 1989) and *Contemporary Issues in Sociology of Sport* (Yiannakis & Melnick, 2001). In both texts, an appreciation of the social, interactional, cultural and historical aspects of sport can be found, and how this differs from traditional views of sport psychology.

Emanating from the aforementioned: the final and overall aim of this research project is to add to this growing, yet still small area of research in sport psychology.

1.1.3 Discourse in Rock Climbing

The mental and physical side of rock climbing as a sport is equally important – a fact that has been largely ignored by research in the field of psychology, in both traditional and Social Constructionist psychology.

After various searches done by the University of Pretoria's Academic Information Services on various data bases (e.g. UpexPLORE, SABINET, Psychinfo) the researcher could find only one paper which related to climbing from a traditional sport psychological

approach. The paper by Campbell (1997) investigates motives for involvement in outdoor activities, especially rock climbing, by making use of questionnaires and Maslow's hierarchy of needs to indicate whether these motives were of an intrinsic or extrinsic nature.

Concerning rock climbing and discourse, the researcher could also find only one paper (Meadows, 2001) which was relevant to recreational and leisure activities in Queensland, Australia. This paper was presented at the Australian Media Traditions Conference 2001. The paper, titled *The Changing Role of Queensland Newspapers in Imagining Leisure and Recreation,* gave an example of the extent of the contribution made by newspapers as regards leisure and recreation in Queensland by using rock climbing as an example.

Although this paper gave a description of how discourses surrounding these types of activities changed, it did not give examples of discursive resources and strategies used in rock climbing. The researcher does not wish to criticise this paper, but merely to indicate that after various database searches he could not find, nor is he aware of any research that relates to discursive resources and strategies used in rock climbing.

When one considers the nature of rock climbing, it becomes clear that, just as with many other forms of sport and social actions, there has to be discourses and discursive resources and strategies that can be explored. However, up to this point they have been largely ignored by the research community. Consequently, this is what this research project will endeavour to explore.

1.2 Question

For this study, the research question can be stated as follows: what discursive resources and strategies are employed during rock climbing discourses?

1.3 Goal

1.3.1 General Goal

The general goal of this research project is to determine what discursive resources and strategies are employed during rock climbing discourses.

1.3.2 Specific Goals

- To do a literature review on the sport of rock climbing and its various aspects that could be of importance for this study e.g. history of climbing, types of climbing, safety and skills, climbing language and definitions, and previous research done on climbing.
- To describe the research methodology of this project in terms of its contexts, participants, researchers, the research position (DP) and its principles, the research data, as well as the quality, validity, ethics and relevance of the study.
- To conduct the research project on the sport of rock climbing and the discursive resources and strategies that are employed during climbing discourses.
- To write a clear and concise research report on the fidings and recommendations of the research project.

1.4 Structure

- **Chapter 2 Literature Review**

The objective of this chapter will be to review both past and present literature relating to rock climbing and the research that has already been done on it. Climbing aspects that will be reviewed include the history of the sport, its definitions and language, the different types of climbing, the climbing system and equipment, safetys and skills, and previous climbing research.

- **Chapter 3 Research Methodology**

The third chapter will be used to give clarity on the following: the context of the research, the participants, the position from which the research will be done: Discursive Psychology, the data, quality of the study, ethics, and relevance of the study.

- **Chapter 4 Results**

In this chapter, a careful analysis of the gathered data will be made and this data will be used to answer the research question.

- **Chapter 5 Conclusion and Recommendations**

This chapter will be used to achieve a synthesis between the literature study and the results of the research, in order to indicate how it has aided the answering of the research question. The limitations and positive aspects of the research will also be discussed.

1.5 Conclusion

After having considered the different views of language in psychology and sport psychology, and why the researcher regards a DP approach to studying rock climbing as relevant in a modern-day society, the researcher will continue to deal with literature relating specifically to rock climbing, i.e. its origins, what it entails, and what research has said and 'found' concerning rock climbing

Chapter 2

Literature Review

In this chapter the researcher will explore rock climbing and all its aspects - from the history and origins of the sport, the different forms, the terminology used in climbing, the system and equipment, safety and skills, climbing language and research that has been done on climbing. This needs to be done to enable the reader to have an insight into the research, to become familiar with the terms and equipment that will be used and to open up a new and exciting world to those who have not yet had the pleasure of having been introduced to, and experienced the world of climbing.

The decision to do this research was made after the University of Pretoria's Academic Information Service spent many hours searching data bases such as Psychinfo, Social Sciences Index, SABINET, and UpexPLORE, but with no positive results. The researcher then proceeded to read widely and to search for literature on the subject of discursive resources and strategies in rock climbing discourses, but could find no relevant literature.

In his mind's eye, the researcher consequently saw himself on a rock-climbing route. He imagined himself at the most difficult section of the route, the crux. This, after having done all the climbing up to this point, and found and utilised all the available holds and necessary techniques to reach this point. As a result, he continued his search for relevant literature. An abundance of literature pertaining to climbing, Discursive Psychology, as well as discourses was found. However, none related to the use of discursive resources and strategies in rock climbing.

Having reached this crux position on his research route, no available holds were readily available to assist him further. Therefore, the only option left was to improvise a new hold and employ existing techniques to complete his research.

The following sections will provide an overview of climbing as a whole, and also specific references to sport climbing. Apects that will be discussed include, the history of climbing, types of climbing, the climbing system, climbing equipment, and safety and skills. Please refer to Appendix C for clarification of the climbing defonotions.

2.1 History of Climbing

In order to determine what motivates humans to climb and where it had all started, the researcher had to study the history of climbing. The following facts were discovered:

People climb because they are equipped to do so. Just like the primates, humans are equipped with the one necessity that enables them to climb - the opposable thumb. It enables them to grasp with their hands and to hold on to objects.

Another point of view on why humans climb was given by the legendary George Mallory before his first attempt to climb Mount Everest. When asked in an interview before his fatal attempt to reach the summit of the highest mountain in the world, he was asked why he wanted to do it. His answer was a simple and unmistakable statement that will echo throughout the climbing world for years to come: “Because it's there!" (Creasey, 2001).

The history of climbing can be divided into two main periods with two different motivations for climbing. The first being the many thousands of years preceding the 1700's, with the main motivation being the survival of the species. Humans had to climb to migrate, to find food, to escape predators and floods, and to defend themselves against attack, by gaining the advantage offered by higher ground (Long, 2004).

Secondly, there is the time period following the 1700's, where man started climbing again, but this time it was not out of necessity, but out of desire (Long, 2004). For these first mountaineers the summit of the mountain was their ultimate goal, and the safest and most natural passage was via glaciers and snow slopes. Once the easier routes up these mountains had been conquered, these early climbers found that they needed some more specialised climbing skills in order to attempt routes that are more difficult. They found that lower cliffs and crags provided the perfect training ground to better their skills and to work at belaying skills to provide some safety to a falling climber (Ashton, 1988).

At the turn of the Twentieth Century came the introduction of rappelling (abseiling), and heavy steel carabiners and pitons to give even more, but still primitive, protection. Throughout Europe, and especially Germany and Austria climbing standards underwent a steady ascent, up until the outbreak of World War II. During the war period there was very little climbing activity, but the technological advancements made during the war had its benefits for climbing.

Before the war, climbing equipment consisted of expensive and rare pitons and carabiners, and bulky natural fibre ropes that were prone to snap during a fall. It is also during this period that we find the emergence of the first discourse about climbing: due to the fact that the ropes used were prone to snap and the fact that climbers were tied together and could be pulled off the mountain with the falling leader, The rule emerged that the leader should not fall. However, after the war there was a plentiful supply of surplus army pitons, lightweight aluminium carabiners, and strong and lightweight nylon ropes (Creasey, 2001).

Over the next 20 years, there was a continuous rise in the standard of climbing and routes that were attempted and completed. It was also during these 20 odd years that two other discourses emerged on two different continents. In Europe, on the one hand, the climbers made a strong aesthetic distinction between using anchors and pitons and artificial aids to pull on during an ascent, and merely used these anchors solely for the protection of a falling climber (Long, 2004).

In America on the other hand, these artificial aids were used innovatively to help in the ascent of the spectacular cliffs in Yosemite Valley in California. Climbers from all over the world travelled to America in order to learn these techniques, but they also left some of their own knowledge and techniques in America.

During the early 1960's the first specialised climbing shoes made their appearance on the market, and with their smooth rubber soles and stronger friction capabilities on rock led to even further and higher standards. By the 1970's climbing was completely dominated by American and English climbers, and the methods and equipment used had become more or less homogenised into what it is today (Creasey, 2001).

2.2 Types of climbing

For this research project, the focus will be solely on a form of climbing known as sport climbing. In order to have a functional idea of what this entails, it is also necessary to explain all forms of climbing as they exist today.

- **Traditional rock climbing –** Traditional climbing is the form of climbing that is typically depicted in documentaries and movies on nature. In this form of climbing two

climbers are connected via two dynamic (energy-absorbing) ropes and harnesses. The climbers scale a rock face, usually in excess of 100 meters. With them, they carry racks of specialised equipment designed especially for traditional climbing. This equipment includes nuts, wedges, active camming devices (ACD's), and pitons (to be discussed later). The equipment is placed in natural features of the rock face, such as cracks, holes and fissures. The ropes are then hooked into the equipment in order to stop the leader in case of a fall, and are later retrieved by the second climber in order to be used on the next section of the route.

- **Free solo climbing –** Free solo climbing is arguably the purest form of climbing. The climber takes no protective equipment along on the route, only climbing shoes and a small waist bag filled with magnesium carbonate to use as a drying agent on sweaty hands and fingers. In this form of climbing there also is a very prominent discourse: if you fall, you die.

- **Indoor climbing –**Indoor climbing is done indoors. Climbers scale indoor climbing structures that are made from plywood or concrete, and they hold onto artificial handholds / footholds that are bolted into the structure. The height of the structure is limited by the height of the ceiling, with the main advantage being that weather conditions is no issue. Therefore, climbers are able to practise and climb all year long. Another advantage is that the holds can easily be unscrewed in order to reconfigure the routes.

- **Ice climbing –** Ice climbing is similar to traditional rock climbing, except for the ice factor. Climbers climb up ice formations, such as frozen waterfalls, or glaciers, rather than rock formations. For this form of climbing specialised equipment is available, e.g. ice-screws for placement as protection in the ice, and icepicks that serve as moveable handholds for the climber. Special shoes are also used that are fitted with crampons, which are teeth-like soles attached to the sole of the shoe to give extra secure foot placement.

- **Bouldering and buildering –** Bouldering is much like free solo climbing, except that the climbing is done on smaller rock features, such as boulders, which are usually not higher than 4 to 5 metres. Buildering, on the other hand, is done on the sides of buildings. The rope is attached to the top of a building and climbers make use of artificial holds to scale the side of the building.

- **Sport Climbing –** Sport Climbing, being the focus of this research project, is the most commonly practised form of climbing in South Africa and in many other countries. This form of the sport has been dominating the climbing scene for more than twenty years. By definition, sport climbing comprises climbing on routes that are protected exclusively by bolts, as opposed to traditional climbing, where the protection is provided by gear placed by the leader. The gear used for sport climbing generally consists of shoes, harnesses, a rope, and a handful of quickdraws, that are used to secure the rope to the bolts as the lead climber ascends the route.

  The essence of sport climbing lies in the pre-prepared nature of the route. The "fixed" protection on the route adds security to falling climbers in a form of climbing where it is considered normal to fall off a route repeatedly while attempting to complete it. It also allows for a more competitive element and due to the greater number of routes that a climber is able to complete in one day, it is very much suited to today's achievement-oriented world.

  Just as in all other forms of climbing and sports, there are also some ethics involved in sport climbing. For sport climbing these include falling off and repeating moves, resting on a tight rope, practising move-sequences, inspecting the route via abseil prior to attempting it, watching others climb it, or even watching videos of the route if they are available (Hattingh, 1998).

2.3 Types of ascent

In sport climbing, various types of ascent can be found. Firstly, there is the *on-sight flash*, which is considered by most to be the purest and best form of an ascent. This happens when a climber ascends a route on the first attempt, without any falls or knowledge about the route.

Secondly, we find the *flash*, which is only a small step below an on-sight flash. A flash is when a climber successfully completes the route on the first attempt, but with some foreknowledge, or beta (information) about the route.

Thirdly, there is the *redpoint.* This is when a climber has practised a route and its sequences a number of times, and is then successful in climbing it from bottom to top for

the first time.

Fourthly, there is the *pinkpoint*; this is when a climber climbs as for a redpoint, except that all the quick draws (to be discussed later) have been pre-placed.

2.4 Climbing System

The climbing system depends upon and requires two climbers who are connected to each other by a rope. The questions that arise are: How does the rope get to the top and back down again, who takes it up and what happens if that person should fall?

This is where the climbing system comes into play. This system does not only function as a climbing system, but also as a safety chain and safety back-up system (Long, 2004).

Two climbers each put on a harness that fits around the waist and legs. The two harnesses are then tied to the climbing rope. The climber who is not going to climb (belayer), then sets up an anchor point at the base of the route. The function of this anchor is to prevent the belayer from being pulled off the ground if his climbing partner should fall. After this has been done, the two partners then do a double-check on themselves and on each other to make sure that the harnesses, knots, and anchors are properly arranged.

The climber (leader) then starts climbing up the route using both hands and feet. While the leader is ascending the route, the belayer pays / feeds out rope, using a technique or mechanical device that can stop the rope. When the leader reaches a bolt, he clips into the bolt. This serves as an anchor that will protect the leader for the next few metres of climbing (Creasey, 2001). This process continues all the way up to the top of the route. At the top anchors the leader will transfer the rope through these anchors, so that the rope is secure and he can then be lowered down to the ground by the belayer.

2.5 Climbing Equipment

The aim of this section is to provide the reader with a concise and clear explanation and description of the essential equipment used in the sport of rock climbing. The equipment that will be mentioned pertains specifically to sport climbing. However, it is also commonly used in conjunction with other equipment used in all other forms of climbing.

2.5.1 The Rope

The climbing rope is used in all forms of climbing, except in bouldering and free solo climbing. It serves as the primary and most obvious component of the climbing system and safety chain.

Rock climbing is an ever-evolving sport of which the limits and boundaries change constantly, resulting in the evolving of equipment as well. Original ropes were made from natural fibres such as hemp or manila. These types of ropes were commonly used in the early days of climbing, but they lacked strength and were heavy and bulky. These early ropes served as little more than an aid to the second climber, or as an aid in the descent of a route (Hattingh, 1998).

Fortunately for the modern-day climber, and especially sport climbers (for whom it is commonplace to experience a number of falls during a day of climbing) advances in technology and synthetic fibres have brought about the invention and perfection of the kernmantel rope.

The easiest way to explain the mechanism behind the functioning of a modern-day climbing rope is to use the example of a Slinky: when steel is twisted, it turns into a spring, and nylon works in the same way. When an object is tied to a Slinky and dropped, the Slinky will stretch until it has taken up the load and will then contract. A climbing rope works the same. Similarly to a Slinky, a climbing rope will also lose its capacity to recover after prolonged use. However, international bodies conduct strict tests on ropes to determine their properties (the tests and testing bodies will be discussed later in the section on safety).

A kernmantel rope consists of a core of elastic fibres (for energy absorption), which is surrounded by a tightly woven sheath. Each individual fibre stretches for the entire length of the rope and each visible fibre consists of thousands of intertwined single-chain molecules. Each rope has an elongation property that is the result of the molecular construction of both the nylon as well as the weave. This elongation property is crucial to any climbing rope to ensure that the energy generated during a fall is absorbed by the rope and not transferred to the body of a falling climber. If this energy was transferred to the climber, a fall of only a few meters could result in a broken back, or even death (Creasey, 2001).

Very few people realise that the major purpose of the rope in the climbing system and safety chain is to dissipate the energy (E) that results from a fall or an abseil. The mathematical formula that gives the amount of energy that needs to be converted during a fall or abseil is as follows:

$$E_{potential} = \text{mass} \times \text{gravitational constant} \times \text{height}$$

So in effect, an 80 kg person that has to abseil 10 metres, brings about the following equation:

$$80\text{kg} \times 9.8\text{m/s} \times 10 \text{ meters} = 7840 \text{ Joules of energy or } 7.8\text{kJ}$$

During a fall the potential energy is converted into kinetic energy and the formula becomes:

$$E_{kinetic} = \tfrac{1}{2} \text{ mass} \times \text{velocity}^2$$

The energy that is created has to be released from the climbing system (the climbers, and all links and gear placements), and is usually released as heat. As Hattingh (1998) states: "....7.8kJ would raise the temperature of a bottle of water some 2 degrees Celsius, or the temperature of your abseil device by quite a few degrees, as many a singed hand will testify!"

The rope's ability to absorb energy is made possible by its elongation property, and the amount and speed of this elongation is determined by a complex interaction between the macromolecular structure and the braiding pattern of the rope sheath (Brain, n.d.).

According to Hattingh (1998), Creasey (2001), and Long (2004) there are also six other factors to consider when purchasing a climbing rope:

Firstly, the length of the rope is very important, because the length of the rope has to be at least twice the length of the route to be climbed. The reason for this is that, in most sport climbing situations, the leader will have to be lowered down by the belayer, and the rope will go up to the anchors, but will also come back down to the bottom as the leader is being lowered. Therefore, if a climber intends climbing a route of 30 metres, using a rope of which the length is only 50 metres, he/she will only be able to be lowered for a distance of 20 metres from the top anchors. Consequently, he/she will be left hanging 10 metres from the ground!

Fortunately, ropes can be bought in just about any length, from centimetres to kilometres. Traditionally the most common length were 50 metres (165 ft), but currently ropes of 60 metres (200 ft) in length are being used increasingly because many sport climbing routes are bolted up to a height of 30 metres (Long, 2004).

Secondly, one has to consider the diameter of the rope. In UIAA standards (*Union Internationale des Associations D'Alpinisme),* an international organisation that sets minimum standards for commercially available ropes), 10.5 or 11 millimetre diameter are referred to as 'full' ropes, which means that they can be used on their own, and they are marked with a 1 on the tapered end of the rope. Ropes with an 8.5 or 9 millimetre diameter are referred to as 'half' rope and should thus be used in conjunction with another 'half' rope in order to qualify as a full rope system. Half ropes are indicated by a ½ on the tapered end of the rope. The double rope system (e.g. two half ropes) is more commonly employed in traditional climbing.

Thirdly, there are two different types of rope to take into account, namely the dynamic and static types. Dynamic ropes are the standard energy absorbing ropes used in climbing. They have a white inner core, and a dyed outer sheath for easy identification and for protection from ultra violet radiation, as well as to show rope abrasion and damage.

Static ropes are made from a different type of nylon and they have a much tighter weave, which allows them minimal stretching ability. Dynamic ropes are used for abseiling and caving, or any other activity where there is no danger of a fall or shock to the rope.

Fourthly, the handling capability of the rope has to be considered. It is important to purchase a rope with a good balance between suppleness, knotability and easy coiling properties.

Fifthly, a rope has to have good abrasion resistance. However, these ropes often have a very tightly woven sheath, which provides adequate resistance against abrasion. Unfortunately, their handling qualities are poor, and their greater weight is due to the properties of the sheath.

Lastly, although ropes are not damaged or weakened by water, their handling and weight becomes altered when they are wet. It is therefore important for a rope to have adequate

water-shedding properties. This is also a very important factor when climbing in extreme cold weather conditions, as water molecules could become frozen within the rope, thus damaging the rope and even causing extensive abrasion to occur inside the rope.

2.5.2 Harnesses

Secondary to the climbing rope, the next link in the fall arrest system is the harness. The importance of using harnesses became apparent after climbers started to realise that simply tying the rope around their waist was not an effective or ideal way of distributing a fall load to the body. This initial way of attaching a rope to a climber had some dire consequences, including crushing of internal organs, constricting the chest and ability to breathe, and damage to the spinal cord (Blackford & Maycock, 2001).

The first attempt to solve this problem came in the form of wide waist belts made from leather and later from nylon webbing, but it was not until the 1960's that the first real breakthrough came with the introduction of the Williams sit-harness. Thanks to this design, distributing forces generated in a fall more comfortably to the thigh muscles and the pelvic girdle became possible for the first time (Brain, n.d.).

Currently an almost countless number of climbing harnesses is available in the market. The choice of which to buy is partly determined by personal preference and partly by its intended function. Competition climbers and sport climbers tend to prefer lightweight harnesses, because for them every extra gram counts. Climbers on longer routes and those who prefer traditional climbing tend to favour the more padded and adjustable harnesses, because for them weight also counts, but comfort is equally important (Hattingh, 1998).

However, no matter which harness is chosen or used, certain qualities pertaining to harnesses are universal and need to be taken into consideration. Firstly, the waistbelt needs to fit comfortably enough to accommodate extra clothing if required, but must also ensure a tight enough fit when climbing. Secondly, the leg loops must be of sufficient size to enable freedom of leg movement. Thirdly, there must be a sufficient number of gear loops for the intended climbing purpose, i.e. sport climbing (less), traditional climbing and snow climbing (more). Last but not least, the harness needs some form of padding around the waist and leg area to ensure sufficient blood circulation (Hattingh, 1998; Creasey, 2001).

2.5.3 Carabiners

Modern day carabiners are made from aluminium alloys, which are both extremely light and strong. Carabiners serve as the connecting links in the climbing system and safety chain – either to connect a climber to a rope or a sling, or to connect a piece of equipment to a sling or rope etc. They are vital components in all forms of modern day climbing.

All carabiners are designed with a spring-loaded gate through which a rope, sling or other piece of equipment can be loaded. For any carabiner to obtain the UIAA approval it first has to have a minimum breaking strength of 19.5 kiloNewtons (kN) which is equivalent to 1950 kilograms along the spine, or solid side of the carabiner, as well as a minimum strength of 4 kN (400 kilograms) along the gated side (Watts, 1996).

Carabiners come in a variety of shapes and sizes, but three different types are recognised: opengate, screwgate, and twistlock.

Opengate carabiners have no locking mechanism on the gate and are commonly used in quickdraws and other situations where it is necessary to be able to clip a rope or piece of equipment quickly (Hattingh, 1998).

Screwgates all have a locking mechanism on the gate, which ensures that the gate cannot accidentally open. They are used to attach a climber to a rope or to a main belay. They are not very light, but they are extremely strong and can take anything from 20kN up to 25kN along the long axis, and 7kN across the gate, or short axis (Long, 2004).

Twistlocking carabiners are becoming increasingly popular, especially in instructional settings, because they have an auto-locking mechanism that ensures extra safety (Hattingh, 1998).

Two other important factors relating to the use of carabiners is the loading of the carabiner (the proper way to use it) and the proper way to take care of it. It is vital to remember that carabiners are designed to take a load along the major axis, or along the length of the carabiner. However, they can take loads across the minor axis, but this is very dangerous, as the load is placed directly on the gate, which is the weakest part of the carabiner. A carabiner taking a load of 20kN along the major axis, can only take 6kN along the minor

axis, which is quite a considerably smaller load (Creasey, 2001).

Carabiners should be cleaned periodically with warm water, liquid soap and a brush in order to allow full movement of the gate mechanism. Only silicone should be used as a lubricant, because oil could damage other climbing equipment. Furthermore, any piece of climbing equipment made from metal or an aluminium alloy should not be dropped onto any hard surface, because the impact might cause alterations of the molecular structure of the equipment, even though ordinary surface inspection might not reveal any irregularities (Hattingh, 1998).

2.5.4 Quickdraws

Quickdraws and the pre-placed bolts in the rock face are the two aspects defining this kind of climbing as sport climbing, distinguishing it from traditional climbing or any of the other forms of climbing. This is not because quickdraws are unique to sport climbing. To the contrary, they are used in all forms of climbing, excluding bouldering and free solo climbing. Quickdraws are peculiar to sport climbing, due to the fact that they are the only pieces of specialised gear that are necessary to protect a falling climber in sport climbing.

Quickdraws consist of two opengate carabiners joined by a short closed-sewn sling, made from nylon or spectra webbing (Hattingh, 1998). There are various shapes, sizes and lengths available, but most climbers prefer their quickdraws to have one carabiner with a straight gate for clipping into the bolt and one carabiner with a slightly inward bent gate for easy and fast clipping of the rope.

2.5.5 Chalk and Chalk bag

Many varieties of chalks are available on the market. The basic composition comprises a lightweight magnesium carbonate – $MgCo_3.5H_2O$. The most important characteristic of the chalk is its suitability as a 'water crystallisation' component, in order to dry sweaty hands and give the climber a better grip (Creasey, 2001).

Climbers, in all forms of climbing, use chalk. They therefore need a suitable container, a chalkbag, for the chalk. A chalkbag is a small, handsized bag, that is tied around the waist with a string, or fastened to the harness (Hattingh, 1998).

2.5.6 Climbing Shoes / Rock Boots

All climbers concur that correct footwear is the single most important item of gear that has the most impact on climbing performance (Watts, 1996).

The first shoes designed specifically for rock climbing had smooth rubber soles for better friction and sticking ability on rock, and stiff forefoot sections to ensure more secure stances on small rock edges, as well as very lightweight materials to save on weight (Watts, 1996).

Climbing shoes are usually bought and worn 1½ or 2 sizes smaller than the normal walking / working shoes worn by the climber. The reason for this being that, during a climb, considerable pressure is exerted on the climber's feet. Therefore, if a climbing shoe fits too loosely, it could easily 'pop' off the foot, thus leaving the climber in quite a predicament. One more reason for wearing climbing shoes a size or two smaller than ordinary shoes is that it provides more sensitivity in terms of the use of, and feeling for footholds (Ashton, 1988; Watts, 1996).

2.5.7 Slings

Slings are made of one-inch tubular webbing, with the one end sewn onto the other in order to create a closed loop. Historically the two loose ends were tied together, but this old method has been done away with because tying the two ends reduces the strength of the sling by up to 50% (Watts, 1996; Hattingh, 1998; Ashton, 1988).

Slings are also used in all forms of climbing where equipment is needed. However, in sport climbing their purpose is twofold.

Firstly, they are used to anchor a belayer to the ground, a tree, or rock in order to prevent him / her from being pulled upwards into the air if the leader should fall. Secondly, slings are used by the lead climber to secure himself / herself to the top anchors of the route in order to safely transfer the rope through these anchors to enable him / her to be lowered to the ground without leaving equipment behind at the top (Long, 2004; Creasey, 2001).

2.6 Climbing and Technology

Although rock climbing is a constantly growing, exciting and challenging sport, it has one major disadvantage, namely gravity. Fortunately, technology accepted the challenge to assist climbers in overcoming gravity, thus enabling them to scale incredibly dangerous rock faces.

Probably the most important technological role-player in the advancement of rock climbing and safety in rock climbing have been computer-aided-design (CAD) (Long, 2004; Creasey, 2001; Ashton, 1988; Hattingh, 1998). Technology has played a crucial part in the development of new materials and equipment used in climbing, especially the materials used in the construction of ropes, harnesses, carabiners, anchors and even the soles used on climbing shoes.

The most important of these technological advances had probably been demonstrated in the manufacturing of the climbing rope. As stated earlier, traditional ropes were far removed from modern day ropes used in rock climbing. However, no matter how much ropes have changed over the centuries, it has always been and will continue to be the primary piece of equipment required to prevent a falling climber from being fatally injured.

The requirements of modern climbing ropes can be described and attributed to its distinct mechanical and material properties, which enables it to withstand the dynamic force of a falling body without breaking, while allowing it to do so without exerting an unacceptably high force on the body. These properties are conferred upon the ropes by the manner of, and technology used in its construction (Brain, n.d.).

A modern climbing rope is manufactured from continuous-drawn nylon yarns. A consequence of this drawing process is that the nylon becomes strengthened and stiffened, as the molecular chains of this semi-crystalline polymer become oriented. These fibres can then be spun to create high strength, low stretch ropes, which are widely used in caving and other industrial rope access work. These low-stretch or 'static' ropes are used in these environments due to their capacity to present a minimal risk of shock loading the rope. The elongation of the rope should also be at a minimum (Blackford & Maycock, 2001; Brain, n.d.).

The fibres can also be spun to create high strength and elongating or 'dynamic' ropes

which are used in sport climbing and all other forms of climbing where there is a risk that the rope might be shock loaded. In recent years the use of stronger materials, such as Dyneema, a yarn made from a mixture of nylon and polyethylene fibres, has given rise to significant weight saving in rope construction, but its small percentage of elongation has led to poor energy absorption during a fall (Blackford & Maycock, 2001).

The question arises: what could be done to give a rope its desired properties? In order to create a yarn with the necessary properties for arresting a falling body, without exerting a major impact on the body, the drawn nylon should be heat-treated up to 120 degrees Celsius. This process leads to loss of chain orientation and strain-induced crystallinity, giving the fibres and the rope increased energy absorption properties, while reducing the forces exerted during a fall (Brain, n.d.).

Although modern harnesses are padded and very comfortable, studies and technological simulations have shown that prolonged free hanging can rapidly lead to a climber becoming unconscious (Long, 2004); Blackford & Maycock, 2001). Furthermore, physiological comparative research has shown that a climber hanging in a sit-harness can be rendered unconscious within 20 minutes, while the simple rope-around-the waist method can accomplish this within 30 seconds. A further problem posed as regards the technology, design and manufacture of harnesses has shown that hanging with the body in a vertical position poses a greater risk than hanging with the body horizontally, owing to the potential compromise of cerebral blood flow (Blackford & Maycock, 2001).

Regarding the design standards of harnesses, regulation concerning load distribution has been avoided. Instead, requirements have only been set for the minimum external load that a harness should be able to withstand without failure or distortion (Long, 2004). The static load of 15kN attempts to model the maximum load that may occur with an ample safety margin, seeing that the body cannot easily withstand loads in excess of 12kN. This test is carried out using a solid anthropometric mannequin with the load applied at the harness tie-in point (Long, 2004).

Advancements in technology and material production have also made it possible to create stronger slings. The traditional nylon slings are very strong, and has a breaking strength of 18kN. However, the advent of a new and stronger fibre called Spectra, which is pound-for-pound about ten times stronger than steel, has increased this breaking strength to 22kN (Watts, 1996).

Carabiners have also evolved from the traditional stainless steel and alloy steel versions to the modern day aluminium carabiners that are made from an alloy called Al 7075 T6. Bars from this alloy are bent into the desired form and then undergo an age hardening process to strengthen it further.

Carabiners are also made using hot or cold forging operations that allows it to be moulded into any desired form (Brain, n.d.).

Even climbing shoes has advanced with the use of technology. Traditionally the rubber used for shoes were ordinary soft rubber used on basketball shoes. Technological advancements have done away with this and modern day shoes have rubber soles that are made from Thermo Dynamic Rubber (TDR), which in essence is not rubber at all but a petroleum-based synthetic (Long, 2004).

2.7 Safety and Skills

The potentially hazardous nature of climbing becomes evident whenever a new piece of equipment is bought. It is stated by the manufacturer in every booklet that accompanies a new piece of equipment, that climbing is potentially hazardous, and that although they have gone to great lengths to ensure that all equipment complies and exceeds the standards set by the UIAA, they cannot be held responsible for any equipment failure, injury or death of anyone using the equipment. Therefore, it is up to the individual climber to learn and understand the proper techniques needed to ensure the safest possible participation in the sport (Long, 2004).

In his essay Yosemite Climber's Guide (n.d.), John Dill, who is the head rescue ranger in Yosemite National Park and has more than thirty years climbing and rescue experience, states: "State of mind is the key to safety. It's impossible to know how many climbers were killed by haste or overconfidence. Many accident survivors will tell you that, somehow, they lost their better judgement just long enough to get hurt."

Dill (n.d.) goes further, and classifies these mental lapses under three categories: Ignorance, Casualness, and Distraction. He also gives descriptions of these mental lapses and possible ways to overcome them:

- **Ignorance:** even the most experienced of climbers can find himself in danger, if he is unaware of it. The basic notion of fighting ignorance can be described as viewing climbing as a continuous learning experience, regardless of how experienced the climber may be. This can be done by listening to others who have survived dangerous situations, and by practising what you learn under reconstructed circumstances.

- **Casualness:** climbers who do not take the circumstances seriously often find themselves in life-threatening situations. Casualness may be more of a symptom than a disease, and according to Dill (n.d.) there may be deeper reasons for underestimating risky situations. Firstly, habitat reinforcement occurs when nothing goes wrong, and consequently the more often one gets away with risky undertakings the more entrenched one's lazier habits become. Secondly, experiences and state of mind of others can reinforce one's attitudes and habits. This is commonly seen when young aspiring climbers talk casually about moderate and even hard routes. Strangely enough, most accidents occur on easy routes or pitches. Thirdly, memory decay occurs, which is seen quite often when a climber neglects to venture on a long route without rain gear after having previously been caught in the rain or thunderstorms along that specific route. Yet, they tend to forget how dangerous and uncomfortable the experience had been, and will probably again attempt it without the required gear. Fourthly, civilisation plays an important role. With the increasing number of fixed anchors and many chalk marks that indicate tens or even hundreds of ascents, climbers tend to forget or ignore how high the potential danger of a climb could be. Fifthly, overconfidence and the thought of the impossibility of an accident happening to oneself play a major role.
- **Distraction:** this is brought about by anything that distracts a climber from the task at hand. It could be anything from thirst, sore feet, hunger etc.

Also worth mentioning on the topic of safety is the Climbers' Code as set out by Creasey (2001):

- A climbing party of two is the minimum
- Always leave word of where you are going
- Take care with all rope work and anchors and put the rope on as soon as possible
- Test each hold, wherever possible, before trusting any weight onto it
- Keep the party together at all times
- Do not let desire overrule judgement; never regret a retreat
- Don't climb beyond the limit of your ability and knowledge

- Always carry a first aid kit, whistle and sufficient food and clothing
- Check the weather forecast

Except for the safety aspect of climbing, there are also various skills that need to be practised and honed in order for a climber to become more successful. The popular notion in the non-climbing community and public that the most important skill needed for climbing is an almost supernatural strength, could not be any further from the truth.

In their book Performance Rock Climbing, Dale Goddard and Udo Neumann (1993) make use of the weakest link principle and an analogy of a motorcar to illustrate this point. The weakest link principle entails that a chain is only as strong as its weakest link. Goddard and Neumann (1993) use the analogy of a motorcar and its performance as follows: a car's performance derives from a chain of abilities that must act in conjunction to produce motion. Although the car's performance represents the combined result of many different abilities, it is not the simple sum of these abilities.

By applying this analogy to rock climbing, a climber's performance will descend to the level made possible by the weakest of his abilities that he has to utilise in a given situation. As Goddard and Neumann (1993) states: " A small change in your weakest areas will have a significant effect on overall performance, while a significant improvement in your strongest areas will have a much smaller effect."

As regards the nature of the above-mentioned areas, the researcher found various types of skills referred to in the available literature (Creasey, 2001; Long, 2004; Goddard & Neumann, 1993; Hattingh, 1998; Ashton, 1988). These skills can be grouped in five categories, namely technical skills relating to the use of equipment, technical skills relating to climbing techniques, physical skills, mental skills and emergency medical skills. The following description applies to the different skills and what they entail:

- **Technical Skills – Equipment**

Knowledge of one's equipment and the proper way in which to use it, is probably the most important aspect in this category. It is every climber's responsibility to make sure that they are using the correct equipment for the task at hand and in the correct manner (Long, 2004). Making sure that you know your equipment also means taking care of it, and being aware of the different factors that might damage it. To quote Ashton: "Take care of your

equipment and it will take care of you" (Ashton, 1988).

There are also two kinds of situations in which a climber has to have the correct technical skills (Ashton, 1988; Creasey, 2001; Hattingh, 1998). Firstly, climbers should have the appropriate technical knowledge of equipment in order to aid them in climbing, and to prevent them from getting into dangerous situations. Secondly, if it should happen that a climber finds himself in a dangerous situation, he ought to have the technical knowledge of the equipment to know or improvise a way to get out of such a situation.

- **Technical Skills – Climbing Technique**

Rock climbing comprises many different types of climbing skills and techniques that are needed for the various types of climbing situations. Whether it involves a gradual slope, a vertical rock face, a steep / overhanging route or a long crack climb, different techniques have to be applied for each of these (Creasey, 2001). To describe the many climbing skills is impossible, but in essence all the skills require the most effective use of hand and foot placing techniques, proper body placement and balance, and knowing how to preserve energy and finding spots to rest en route.

- **Physical Skills**

Although strength is an important part of the physical skills required for climbing, it is but one element that makes a good climber (Long, 2004). Where most of the literature found by the researcher on climbing focuses on all aspects of climbing, from the history of the sport to the necessary medical skills needed in an emergency, Goddard and Neumann (1993) dedicated their entire book, *Performance Rock Climbing,* to training and enhancement of physical and mental skills. They cite the following areas of importance to climbing:

  - Co-ordination of body movement: knowing where and how to move one's feet and hands.
  - Technique: knowing which techniques to use when, and how to use energy-saving techniques.
  - Physical training principles: what different types of training are most beneficial for climbing.
  - Strength training.

- General endurance.
- Flexibility.
- Staying healthy.

2.8 Climbing Language

Language and communication between climbers are very important, because of the potentially hazardous nature of the sport (Long, 2004; Watts, 1996). Communicating is important for both the climber and the belayer in order for both to know what is happening and what needs to happen. Any climber who has found himself out of line of sight of the belayer, especially on a difficult section of a route, can testify to this.

This section is not aimed at discussing discursive practices in rock climbing talk, but rather to give the reader a better insight into, and knowledge of the different vocal commands that one will encounter while reading the research report and collected data.

There are various vocal commands given by both the climber and the belayer before, during and after climbing a route. These commands or requests serve the purpose of further facilitating safety during a climb (Creasey, 2001).

According to Long (2004) and Watts (1996) these commands and requests are as follows:

"On belay?" The question the climber asks before he wants to start climbing.

"Belay on" The belayer is ready to accept responsibility for the climber. The belayer has double-checked all harness buckles, anchors, tie-ins, belay devices, and all carabiners.

"Climbing" The climber is now ready to start the ascent.

"Climb" The belayer's response that he is ready to belay the rope, proceeding to do so as the climber advances.

"Slack" A command to the belayer to let out some rope, give slack.

"Up rope" The climber asks the belayer to take in any slack in the rope.

"Tension / Take" A command to the belayer to hold the climber on a tight rope, by holding the belay fast.

"Lower" A command that the climber is ready to be lowered.

"Watch me!" The climber is concerned about falling, and wants the belayer to pay close attention, and to expect or be prepared to arrest a fall.

"Falling!" The climber is falling, and the belayer should apply a secure brake and brace for the impending catch.

"Belay off" The climber's signal to the belayer that he has been anchored at the top, and that the belayer's responsibility to belay has ended.

"Off belay" The belayer's response to the climber that the belay has ended.

"Got me?" Used by the climber at the end of a sport route to assure that the belayer has a brake on before releasing the hold to be lowered.

"Below!" An exclamation of caution to anyone below the climber that something is falling down towards him. This could be anything from a loose rock to a piece of equipment that has been dropped. The statement is also used after the route has been climbed and the rope is being pulled down to prepare for the next route.

These requests and commands are very generic in nature, and it is commonplace to find variations between different climbing partners and even in different climbing areas. The advantage of having a specialised communication system between two climbing partners is that it avoids confusion at crags where there might be tens, or even hundreds of people climbing.

2.9 Climbing Research

Research on the sport of rock climbing has been largely confined to studies of a very high quantitative nature, with the researcher, after extensive searches done by the University of Pretoria's Academic Information Services, not being aware of any studies that have been done on rock climbing from a Social Constructionist epistemology - not even from a DP

perspective.

Research that has been done on the sport has almost exclusively been done by researchers in the sport sciences. However, they have made their focus of research the physiological aspects relating to strength and endurance, injuries, nutrition, metabolic processes, energy expenditure, and technology and safety, to name but a few.

The following are examples and a brief overview of previous research done on rock climbing with which the researcher is familiar:

Watts, Newbury and Sulentic (1996), undertook a study to determine the acute changes in handgrip strength, endurance, and blood lactate levels with sustained sport rock climbing. They measured pre- and post-climbing handgrip strength with the aid of dynamometry. They found that handgrip strength decreased by 22% and endurance decreased by 57% from pre- to post-climb testing, and that this decrease remained stable for 20 minutes after climbing.

Another study that has been done was on the anthropometry of young competitive sport climbers to describe their general anthropometric characteristics compared to adult climbers, and other young sport professionals. These characteristics included body mass, height, body mass index (BMI), skinfold thickness, and various other physical characteristics. The assessment was done on young climbers who were actively competing in a professional climbing competition circuit over a twelve-month period. Young sport climbers were found to have the same characteristics as those of adult climbers, but they differed from other sportsmen and sportswomen (Watts, Joubert, Lish, Mast, & Wilkins, 2003).

Quaine, Martin and Blanchi (1997) did a during-the-fact study on rock climbing, but the study did not involve discourse or talk in rock climbing, but rather investigated the effects of leg movement on the organisation of the forces at the holds in a climbing position. This was done by means of a three-dimensional kinetic analysis.

The energy cost of sport rock climbing in elite climbers was investigated by Booth, Marino, Hill and Gwinn (1999). They assessed the oxygen uptake, blood lactate concentration and heart rate response during indoor climbing and outdoor sport climbing. Although they did assess these features during climbing, they did not include any features of discourse or

language in their study.

The final study mentioned here is one done by Wright, Royle, and Marshall (2001), who determined the frequency of overuse injuries in indoor climbers and the most common sites and influencing factors of these injuries. The researchers used a semi-supervised questionnaire, which was completed at the Enterprises World Climbing Championships in 1999. The study also involved pre- and post-climbing analysis.

It became apparent to the researcher that more research needs to be conducted on the sport from a Social Constructionist point of view and particularly from a DP perspective, because the studies that had been done were conducted either before or after climbing, but with no emphasis on language or discourse during rock climbing. The researcher regards the importance of language as a central aspect in the everyday life of every human being - sportsmen and -women included. Relying merely on research done from a positivistic epistemology point of view is not sufficient. Affording the proper attention and recognition to talk and text in our lives and our actions is essential, whether they are our actions in a social, work or sporting context.

2.10 Conclusion

In this chapter, the researcher has explored climbing and all its aspects. A brief description was supplied of research that has been done on rock climbing. As the research that has been done neglected to give recognition to discourse and talk in rock climbing, the researcher considers it appropriate and necessary to undertake a research project on the discursive resources and strategies that are employed *during* rock climbing discourses.

The following chapter will examine Discursive Psychology, i.e. where it originated, what it aims to study and how, as well as the methodology of this research project, its participants, the researcher and all other relevant factors.

Chapter 3
Research Methodology

This chapter is aimed at the provision of an explanation and conceptualisation of the various aspects that form the research methodology concerning this research project. These aspects include the research contexts, the participants, the research position (DP), the data and the quality thereof, ethical considerations and the relevance of this study for the field of psychology and rock climbing in South Africa.

3.1 Context

The researcher firstly wishes to provide three conceptualisations of the term “context”, as described by Reber and Reber (2001). This is not done for the sole purpose of clarification of the term *context,* but also because of the view of Social Constructionism and DP, namely that knowledge has cultural and contextual specificity. Therefore, keeping the cultural and contextual specificity of knowledge in mind is important, as well as the way in which it might influence the research project.

Reber and Reber (2001) describe context as: **1.** Generally, those events and processes (physical and mental) that characterise a particular situation and have an impact on an individual's overt and covert behaviour (actions). **2.** The specific circumstances within which an action or event takes place. **3.** In linguistics, the surrounding words, phrases and sentences that are components of the meaning of any given word, phrase or sentence.

In this research project, two contexts will be encountered that will inform and influence the research. These two contexts are the academic context and the climbing context. The researcher intends to explore what these two contexts entail and how they could or will influence the research.

3.1.1 Academic Context(s)

This research project was undertaken by the researcher as a partial fulfilment of the requirements needed to obtain his MA degree in Counselling Psychology through the University of Pretoria. The University of Pretoria is a tertiary institution that focuses to a large

extent on research within the scientific fields, such as psychology, sports science, and various other academic fields.

The research project started in January of 2006 and ended in November of the same year. At this point, the researcher had already completed his academic and internship years which is also in partial fulfilment of his MA degree through the University of Pretoria.

The academic context in which this research project is conducted can be further divided into two sub contexts: the traditional positivistic view of psychology and human beings and the more radical and up-and-coming view held by Social Constructionism and DP in particular.

Although this research project will not be done from a traditional approach, the views held by these epistemologies nevertheless laid the foundation for the researcher to be able to conduct the research to obtain his MA degree. To clarify this statement: in order for the researcher to reach his post-graduate studies, he had to undergo the undergraduate courses, which are dominated primarily by the more traditional views of psychology and human nature.

These traditional views of psychology and human beings strongly influenced the researcher and 'forced' him to move away from the existing views and to embrace the views of Social Constructionism and its various theoretical perspectives. The reason for this being that, as stated in chapter 1, the primary methods of data gathering in the positivistic approaches to psychology has been either 'before-the-fact' or 'after-the-fact' testing methods. However, seeing that the research question for this project relates to discursive resources and strategies *during* rock climbing discourses, it is much more appropriate to make use of a research position that allows for 'during-the-fact' data collection, and not a position that relies on data gathered before or after rock climbing, but during rock climbing. This is where a DP approach becomes critical for a research project such as this.

The academic context of Social Constructionism and DP will extensively influence this research project, the reason being that it is the preferred research position as it focuses on human beings in interaction with each other and their environments - which is exactly what climbing is, namely people interacting with each other and their environment.

3.1.2 Climbing Context

The second context, which is of importance to the project, is the climbing context. For this project, the focus will be on sport climbing and the discursive resources and strategies used during rock climbing discourses.

Two sites or points of data collection were used for the project. The first was the Bronkies Crag, which is situated next to the Bronkhorstspruit dam in the Gauteng province of South Africa. The Second point of data collection was the Chosspile Crag, which is situated next to the Hartebeespoort dam in the North West province of South Africa.

Both of these climbing crags are very popular amongst climbers residing in the Gauteng and North West Provinces. On any given day any number of climbers, from 2 to 50, or even more could be found at these crags.

The Bronkies crag is very easily accessible and is the newer of the two locations that were used as sites for data collection. The difficulty of the climbing grades at this crag is more widespread in nature, ranging from beginner route grading to extremely difficult routes.

The attributes of the Chosspile crag, on the other hand, are almost the opposite of the crag at Bronkhorstspruit. The route to the climbing site is very hard and not easily accessible. The climbs differ totally from that at the Bronkies crag , with the majority of the routes being moderately to extremely difficult. Most of the routes are also very steep and have an overhanging section, almost like the ceiling of a room.

3.2 Participants

Various participants helped to contribute to the research project. They were the following:

3.2.1 Climbers

The research project included five climbers, all of whom are aged between 22 and 35. They will be referred to as “climbers” for the remainder of the research report. All the climbers have had experience in rock climbing prior to the outset of the project. However, they have not

attained the same level of experience, with some having climbed for one year and others for almost 6 years.

No instructor was present during the course of the project, since all the climbers have at least the minimum climbing knowledge and skills in order to ensure the safest possible climbing experience.

It is also important to note that, according to Potter (1998), discourse research focuses on interactional phenomena and not so much on the individual, as is the case in traditional research. For this research, it implies that the description of the sample for discursive research does not relate easily to the manner in which research samples are understood in more traditional research.

The question of sample size is also the first point where discursive research differs radically from the more traditional and quantitative approaches. Potter and Wetherell (1987) states that discursive research and analysis is an extremely labour intensive approach, but as the point of interest is language use and not the individuals who generate the language, and because a larger number of linguistic patterns are likely to emerge from a smaller number of people, a smaller sample size is quite adequate for research of this nature.

3.2.2 Researcher

The researcher is currently busy completing his MA degree in Counselling Psychology through the University of Pretoria. He has been a full-time student in psychology since 2000, and has been actively involved in the sport of rock climbing since 1999.

His reasons for conducting this research on the sport of climbing are rooted just as deeply in his personal life as it is in his professional life.

His first introduction to Rock Climbing was through his older brother and his stories of climbing excursions with his friends. Although at this stage he had never climbed before, these stories captivated the researcher and were the beginning of his life as a climber. It was not until his final year at high school that he had his first physical introduction to the sport of climbing.

This happened in July 1999 during his church's annual Winter Camp at Roossenekal in the Mpumalanga province. It was the third year that the researcher attended the camp and his second year as a facilitator. One of the activities scheduled for that year's camp was rock climbing on a route set up on a boulder of about five metres high.

The researcher does not regard his first attempt at climbing as being successful in terms of reaching the top. However, it was extremely successful in getting him hooked on the sport. The researcher is not entirely sure whether it was the challenge, the physicality, the adventure or the element of perceived risk that caused him to become addicted to climbing, but he is certain that he will never forget the way in which the two facilitators played a role in this.

Johan Fouché and Carl Laage, the two facilitators, at that time were two fairly experienced climbers, but they also had two very different approaches to climbing. Carl was the more serious and conventional of the two, and he always did his best to re-assure the campers that they would be safe. Johan, the more unconventional one, used humour to maintain a relaxed atmosphere. Although both of them were equally serious about the safety aspect of climbing, their external approaches and the way in which they used their language and interaction with the campers differed widely. In a sense, this experience planted the seed for this research project and research question, although it took almost 6 years for this seed to germinate.

Since that first real experience involving climbing, it has come to play a very important role in the researcher's life - his personal as well as his professional life. He thinks, dreams and talks about climbing, but most importantly he has been an active climber for the past eight years and will continue to be one for the rest of his life.

Not only has climbing inspired the researcher to actively take part in a sport, but it has also enriched his life through the following important and valuable aspects: exercise (mental as well as physical), relaxation, self-confidence, problem-solving skills, a realisation of what is important in life, a sense of adventure and excitement about the unknown and it has taken him to the most beautiful and isolated places.

Finally, but probably the most important aspect that prompted this research project: climbing introduced the researcher to people from all walks of life and with extreme opposites in terms of their methods, approaches to and views about climbing. Every person to whom he has been introduced through climbing has served as a drop of water that has helped the seed to germinate and has led him to start asking how and by what means do climbers construct their climbing experiences and actions through their language and world views.

Concerning this research project and the researcher's experience as a climber, he did not actively take part in any of the climbing used for data-collection. However, he was present during all the activities in order to take care and supervise the expensive equipment, i.e. both the climbing equipment and audio / visual equipment for which he was responsible. The researcher was also constantly available and present to answer questions or queries posed by any of the participants relating to the project. This was necessary in order to uphold the right-of-access clause as put forward in the consent letters signed by all participants in the project.

With regard to the researcher's experience and capability to undertake this project, he has been exposed to various research methodologies and positions throughout his four years of undergraduate studies and in the academic and internship programmes he attended during the MA Counselling Psychology course.

The researcher's experience in research projects and programmes can be divided into two areas: the traditional positivistic view of psychology and human beings, which was very much prevalent during his undergraduate studies, and the more radical and up-and-coming view held by Social Constructionism and DP in particular, to which he was introduced during his MA programme.

Although this research project will not be done from a traditional approach, the views held by these epistemologies laid the foundation for the researcher to be able to conduct this research in order to be accepted into, and to obtain his MA degree.

The traditional views of psychology and human beings strongly influenced the researcher and 'forced' him to move away from these views and to embrace the views of Social Constructionism and its various theoretical perspectives. The reason for this being that, as

stated in chapter 1, the primary methods of data gathering in the positivistic approaches to psychology has been either 'before-the-fact' or 'after-the-fact' testing methods. However, as the research question for this project relates to discursive resources and strategies *during* rock climbing discourses, it is much more appropriate to make use of a research position that allows for 'during-the-fact' data collection, and not a position that relies on data gathered before or after rock climbing, but during rock climbing. This is where a DP approach becomes critical for a research project such as this.

The academic context of Social Constructionism and DP strongly influenced this research project, not only because it was the research position that has been chosen, but also because it focuses on human beings in interaction with each other and their environments. This is exactly what climbing is - people interacting with each other and their environment.

The researcher admits that, up to the commencement of this project, he has not undertaken any major research projects from a Social Constructionist epistemology, but, as a result of the experience that he has gained through conducting this project. With adequate supervision he feels confident that he will be able to accomplish the task successfully.

3.2.3 Supervisor

The supervision for this research project was undertaken by Dr. L.H. Human of the University of Pretoria, Department of Psychology. Dr. Human also served as the researchers' course co-co-ordinator for the MA programme and has extensive experience and knowledge of Social Constructionist thought and theory, as well as sports in psychology.

He has played a fundamental role in the researcher's progress - from a positivistic undergraduate to a Social Constructionist postgraduate student. The researcher is confident that Dr. Human provided more than adequate supervision and insight into the field to ensure the successful completion of the project.

3.2.4 Other

The researcher made use of the services of a sound engineer, to help with the gathering of the data. This was done by making digital audio recordings of natural and spontaneous

conversations that transpired during the climbing experience. The data was transferred to a notebook computer to facilitate the transcription process.

The sound engineer also conformed to the confidentiality and indemnification clauses as set out in the consent letters attached as Appendix A to the report.

3.3 Research Position

The research position from which this project was done is that of Discursive Psychology (DP). DP as a theoretical perspective, studies naturalistic interaction and has its focus on the detailed order of discourse and the exploration of how talk and text are used to perform actions within a society (Potter, 2003b).

Although DP might seem new to the field of psychology and research, it has been emerging within these fields over the past 20 years. The first major publication was an article by Litton and Potter (1985), which was followed by the book "Discourse and Social Psychology" (Potter & Wetherell, 1987).

One of the most important distinguishing factors of DP that differentiates it from other perspectives is that it is an approach to the development of knowledge, and not a theory of knowledge in itself (Potter & Edwards, 1999).

Although the field of discourse psychology has been present for a number of years, confusion still exists amongst researchers concerning the two areas in which it is applied, namely Discourse Analysis and Discursive Analysis. The following is a brief explanation of the difference between the two fields to enable the reader better to understand the research and its point of departure.

Discursive Psychology, as a theoretical perspective developed by Jonathan Potter, Derek Edwards, and Margaret Wetherell, has its focus on discourse. This is also the case with discourse psychology and discourse analysis. The difference between the two areas is not *what* it is that is being studied, but rather *how* it is studied.

Discourse psychology and analysis, which is largely based on the work of Foucault, has its

focus on the study of discourse on the macro level. In other words, discourse is viewed as a narrative, which informs an entire society at a macro-contextual level.

On the other hand, Discursive Psychology views discourse as talk and text, and analyses what is being said on the micro level. DP thus does not view discourse as a narrative which informs an entire society, but rather as one that occurs and informs actions on an interpersonal and interactional level, also referred to as the micro-level.

With DP as an alternative approach to studying human beings and their interactions, it is at this point necessary to further explain this theory of discourse in terms of its basic principles These basic principles are discourse as situated, as action oriented, and discourse as being constructed and constructive.

3.3.1 Discourse is Situated

For this research, and for any research that is conducted from a Discursive Psychology perspective, it must be kept in mind that the constructs that are examined always occur (are situated) and are constructed within a specific context. Constructs are thus always situated. What this means for discursive research is that which is being investigated, is always interpreted by the researcher from the situation / context in which it is made relevant (Abell & Stokoe, 2001). According to Edwards and Potter (2001) this also implies that, whatever psychological matters are being studied, it must be understood as being introduced, defined and made relevant to the specific setting in which it occurs.

For this research, it is very important that the context within which something is talked about, be considered and kept in mind. Potter and Edwards (1999) use an example of the often used interview situation to explain why the context is so important. If one considers the interview situation or research methods which rely greatly on interviews, it becomes clear that the use of an interview causes people to say how they might think or act in a fantasy / make believe situation. It becomes clear that, due to the fact that people talk about some kind of make believe situation, the use of interviews separate them from the context, because it relies so heavily on before-the-fact or after-the-fact methods of data gathering.

Furthermore, it must be kept in mind that interviews are not mere methods in which talk

happens or occurs: when working from a DP perspective, talk is always situated, and participants in research who are engaging in an interview, are 'doing' interview talk which brings with it certain criteria and expectations of exactly how to speak and 'do' interview talk. What this means for research, is that this then becomes the reported result, and that the results are being defined into the research rather than being discovered in it (Potter & Edwards, 1999).

Nevertheless, the use of interviews have aided and contributed greatly to research. However, it has prevented a true examination of the interactional nature between psychology and sport (Wiggins, Potter, & Wildsmith, 2004). This research is therefore aimed at moving away from climbing discourse and its related discursive resources and strategies as desocialised and decontextualised activities, and moving towards seeing it as a situated, interactional and constructed activity.

Potter (2003a) states that interaction is always guided by the setting / context of the interaction. For this research, talk will be in a climbing context, but the talk might not always be climbing related, therefore no contextual relevance will then be assumed. What will rather be considered is how the participants make institutionalised activities relevant for themselves by their orientation towards it, or by even ignoring it.

In terms of the situatedness of discourse, there are three ways in which this will take place. Firstly, if we think about any physical situation, it is understood that any action (even talk) happens either before or after another action. For instance, in a climbing situation, after the safety check has been done, the belayer will say “belay on, climb when ready”, the climber will then usually respond with “ready, climbing”. In this example it is clear that the belayer’s talk sets the stage for the climber’s response. However it does not force or determine what the climber says, i.e. the climber might not be ready and may reply with an appropriate response. This sequential positioning, the first manner in which discourse is situated, sets the conditions for what is about to happen next, but it does not force or determine it (Potter, 2003a).

Every utterance that is made, relates directly to the talk and actions that preceded it. Knowing when actions occur is thus a prerequisite for gaining an understanding of exactly what is happening. Actions do not exist in isolation, they are responses to preceding actions

and, in turn, they also set the stage for future actions (Potter, 2003a; Edwards & Potter, 2001).

The accomplishment of social action requires that the party producing an action, as well as any other parties present, must be able to recognise both the shape and character of what is transpiring (Goodwin, 2000). What this means for the sequential situatedness of discourse is that all parties must recognise what is happening and also recognise what possible range of action can be relevant and used next. This needs to be done so that the other person does not only build an independent action, but one that is sequentially relevant to the action that preceded it.

Secondly, discourse is also situated institutionally. In rock climbing there are two institutional roles adopted by the climbers, the role of leader, and the role of belayer. It is the role of the leader to determine what needs to be done, i.e. give more / less slack on the rope, take the belay off or put the belay on. It is the role of the belayer to follow these instructions and keep a watchful eye on the leader wherever possible.

Climbing discourse (talk) is always constructed in a particular setting, whether it is in the car on the way to the climbing venue or back on the access route, at the climbing crag or at any place where people are talking about climbing. These discourses are also oriented to specific actions, which could include actions such as climbing itself, belaying, technique, difficulty, success or failure.

Whatever is being said, is thus said by someone in a specific role and this person is performing certain tasks, and these tasks may be relevant to what is taking place at that specific time (Potter, 2003b). According to this, people do not only describe concepts, but they also orientate themselves to these descriptions in a particular manner (Wiggins et al., 2004).

According to Wilkinson (2000), talk is designed by the speaker for a specific context, and the context is understood differently within various analytic approaches. For DP, the context is the immediate local context of the research situation. This means that the context is the talk directly before or after any statement, in other words DP is concerned with addressing the immediate context of a research situation.

For Wilkinson (2000) this means that DP shows how the production of statements relating to opinions and beliefs, as well as the production of information about the world, is occasioned by the immediate context and it is best understood within that immediate context. What this means for the DP researcher is that the only version of experience to which he / she has access is that which is provided by the context of the research itself, and that the experience is created by and for the immediate context and because of this, it must be theorised in relation to this context.

The third and final way in which discourse can be situated is the rhetorical way. This means that talk can be constructed and delivered in such a way that it acts to counter any response, expectation or interpretation that could be counterproductive to what is intended by the talk.

By doing this, descriptions can be designed to be offensive as well as defensive towards alternative descriptions that might disqualify the talk (Edwards & Potter, 2001.). Potter (1998) states that, when people talk, they aim to organise the talk to make argumentative cases and to undermine the alternative cases. Thus, instead of looking at how a description relates to some reality, the focus is more on how it relates to the competing alternatives (Potter, 2003a). Accountability is another aspect that relates to the rhetorical use of discourse (Potter, 1998). According to the above statement, discourse can also be designed to act as sensible, rational and justifiable in order to hold its ground in a conversation.

3.3.2 Discourse is Action Oriented

Discursive Psychology views language as an action and a behaviour on its own, and not merely as a reflection of our thoughts and feelings (Edwards & Potter, 2001). DP has its focus on how discourse performs certain actions and practices. These could include anything from blaming, invitations, displays, neutrality and a vast range of other actions. People use actions in their relationships and occupations to perform certain tasks, and these tasks and actions are central to gaining an understanding of people's lives (Potter & Edwards, 1999). As Potter (2003) notes, the focus in Discursive Psychology is on the different discursive practices that people use within particular contexts in order to achieve certain practical, technical and interpersonal tasks.

Discourse is constructed in a variety of ways to perform actions, like inviting your climbing partner to start climbing, and this is what the action-orientation of discourse refers to (Edwards & Potter, 2001). A result of the action-orientation of talk, concepts such as discourse, difficulty, and pain are no longer something that a person has, but it becomes an externalised action that a person does. As stated earlier, Discursive Psychology rejects the idea of language as being merely passive and reflective. Rather, it proposes that language constitutes the world and the beliefs about that world, instead of merely reflecting an objective outside reality (Potter, 1998).

The range of actions in which DP is interested includes actions that are generic in nature and that appear across a vast range of settings (e.g. criticisms, greetings), and also the more specialised range of actions that one might find because of the specificity of climbing and its setting. These specialised actions are sometimes also seen as modifications and elaboration of the more generic actions (Potter, 2003a). These social activities are also seen as involving or being directly conducted through discourse (Edwards & Potter, 1995).

Discourse performs social actions (Potter & Edwards, 1999; Potter, 2003a; Jimmerson, 2001). Not only is discourse the medium through which people interact, but it is also the primary medium for our actions and practices, and discursive analysis is not only concerned with the study of talk and text. In essence, it is used to study the different ways that talk and text are employed to perform actions.

Discourses are constructed to get things done, it is also a crucial part of making things happen and it is not merely something that is produced during moments of reflection (Potter, 2003a). In this research project, the researcher will investigate the discursive resources and strategies that are employed during rock climbing discourses. As resources and strategies are used by people in conversation to perform certain actions, which are also part of other broader practices, it will not suffice merely to identify these resources and strategies. The manner in which these constructions are employed to get certain things done must also be considered (Potter, 1998).

The action orientation of discourse is another aspect which differs radically from more traditional and cognitivist approaches, which holds a view that individuals build representations of the world and that talk is a mere reflection of these representations

(Edwards & Potter, 1995). DP on the other hand, holds that discourse should be the departure point and that the individual constructs mind and reality through language during the course of their performance of practical tasks (Potter, 1998).

Abell and Stokoe (2001) states that if the assumption is made that talk is the site of concept negotiation, then representations should be taken as being constructed for use in actions and that these constructions are oriented towards actions.

3.3.3 Discourse is Constructed and Constructive

According to Potter (2003b), discourse is constructionist in two ways. Firstly, discourse is constructed, drawn on and built out of words, rhetorical devices, idioms, descriptions and so forth, in the course of interaction and in performance of specific actions. Secondly, it constructs and stabilises our versions of the world. In other words, versions of our inner life, history, local circumstances, and broader social groups and structures are produced to do particular things in interaction.

The first way in which discourse is constructionist / constructed implies that society as a whole is continually creating discourse through actions and through interaction with others. If we consider rock climbing as an example, the constructionist property of discourse can be seen in the view that broader society holds of climbers and their sport. Climbers are often referred to as being insane, or having some kind of death wish. However, most climbers are ordinary people with a happy family life and successful jobs, and they take great care not to end their lives prematurely by taking unnecessary risks. According to Freedman and Combs (1996) these types of discourses are sustained and transferred through various means including television, journals, films and even daily conversations.

According to Potter (1996), the second way in which discourse is constructionist / constructive implies that a person might construct a particular version of a setting that they are in, or a history of that setting, or a version of their inner feelings, with the intention to perform some specific business. An example of discourse being constructive in this manner can be seen in the way in which climbers rely and continuously reconstruct previous climbing experiences in order to prepare themselves for new settings and inner feelings that they might encounter in a new climbing setting. It also becomes evident through the way in which climbers talk. When

talk occurs in a climbing setting, the talk is not newly created, but the climbers rather make use of terminology, which has been made available to them through cultural and historical development of climbing and mountaineering. Billig (2001) states that the ideology of members of a society, comprises ways of thinking and behaving within such a society and this makes the ways in which it operates and functions seem unquestionable and natural to its members.

The essence of Discursive Psychology can be described as the study of construction. Language can be used to construct a temporary reality between two or more individuals as they use it two negotiate a mutual meaning between them by using language in an interactional context (Burr, 1995).

3.5 Data

3.5.1 Collection and Transcription

The data that was collected consisted of naturally occurring conversations that transpired during the climbing experience.

Naturalistic materials have the advantage of including human interaction that can be recorded, transcribed and analysed. It also has the benefit of allowing the recording of certain practices and the identification of discursive resources and strategies that are employed in such practices. These advantages include actuality, action orientation and observation of participants' orientation towards the setting.

The use of natural data, rather than more structured techniques (e.g. interviews) for this project, is further justified by the fact that interviews enable the interviewer to control the interaction. It assumes (incorrectly) that the talk is about the topic, and so the interviewer imposes his / her interpretations on the data (Wetherell, Taylor, & Yates, 2001).

Before the collected data can be analysed, it has to be transcribed into a format that will enable the best possible discursive analysis to be done.

The transcription method that was used for this project is that of Gail Jefferson (see Appendix

B for notation symbols).

The Jeffersonian method has been used extensively and researchers agree that this method is most suitable for analysis work of this nature (Potter, 2003a; Potter, 2003b; Hutchby & Woofitt, 1998).

Detailed transcription of recordings is a two-part process. First, the recorded data was transcribed verbatim. The researcher transcribed all the interaction sequences that took place during the climbing experience. Second, a selection of pre-selected extracts was transcribed using the Jeffersonian transcription system. The Jeffersonian method represents the interaction of speech as spoken, and does not just turn it into a form of cleaned up written language (Findlay & Faulkner, 2003)

The transcription was completed using Internet downloadable Transanna software and a word processing programme.

3.5.2 Analysis

After the transcription process was completed, the process of discursively analysing and interpreting the data followed. In the research report the reader will not only be subjected to the researcher's interpretations of the data, but will also be in the position of making his / her own interpretations of the transcribed recordings, which are included in the report.

A central part of doing Discursive Analysis is an exploration of the orderliness of the data, whereby Discursive Analysis aims to explain patterns of human interaction. Emphasis is placed on specific details and features of talk, such as pauses, delays and intonation (Potter, 1998). Analytic work such as this reveals an order to interaction that participants are sometimes unable to formulate in abstract terms, and treats the way in which people speak to be equally meaningful as what it is that they are saying (Potter, 1998).

Within this approach, language and talk becomes the focus of interest and the examination of talk in this manner, reveals the linguistic and rhetorical devices that are used to construct events and objects (Wilson & McLuckie, 2002).

Discursive Analysis is not a methodology that assumes to have direct access to people's beliefs or knowledge of their lives. It rather limits itself to, and capitalises on what can be directly observed (Wilkinson, 2000). Accordingly, Silverman (1997) describes how Discursive Analysis has an analytic commitment to the study of discourse as talk and text in social practices; the focus is not on language as an abstract entity, but as a medium for interaction.

Potter and Wetherell (1987) state that Discursive Analysis is a process of two phases. The data is firstly searched for a pattern, but with variability / differences being a pattern that is just as important as consistency. The second phase is concerned with function and consequences. What this means is that talk fulfils many functions and has varying effects. It is then necessary to form various hypotheses about these functions and effects and consequently to search for the linguistic evidence to support the hypothesis. There are also various aspects to take into consideration regarding the quality of the data and the analysis.

3.6 Quality

3.6.1 Enhancing the Quality of Analysis

Discursive psychology and discursive analysis, although being a fairly new, as well as qualitative methodology, is in no way an ‘anything goes’ method of doing research. Just as in any other form of research, whether qualitative or quantitative, certain requirements need to be met. In the case of discursive analysis it is especially important for the researcher to take these into consideration in order to promote discursive analysis and the quality thereof and to avoid the occurrence of non-analysis (Antaki, Billig, Edwards, & Potter, 2002).

According to Antaki et al. (2002) there are six forms of non-analysis that might give a superficial appearance of conducting discursive analysis in social psychology: (1) under-analysis through summary; (2) under-analysis through taking sides; (3) under-analysis through over-quotation or through isolated quotation; (4) the circular identification of discourses and mental constructs; (5) false survey; and (6) analysis that consists of simply spotting features.

Firstly, the researcher will have to guard against the notion that transcription can be a replacement of, or substitute for, analysis. Although transcription prepares the data for

analysis, it is not analysis in itself. Under-analysis through summary occurs when the researcher merely gives a summary of the themes present in the transcription, without giving an analysis of the discourses used by the participants. The main problem with this is that a mere summary does not provide the crucial discursive practices, themes or interpretative repertoires as used by the participants and which is necessary for proper discursive analysis (Antaki et al., 2002). Under–analysis through summary is the first of the things that are not discursive analysis.

Secondly, the researcher must guard against under-analysis through taking sides (Antaki et al., 2002). Seeing as a mere summary or transcription is not discursive analysis, the researcher must then do something with the data or add something to it. However, this does not mean that everything that is added to the data can be seen as analysis. As Antaki et al. (2002) states: “It certainly does not mean that every added element of analysis is discourse analysis.”

When analysts take a moral, personal or political position towards either the participants or what they have said, they run the danger of substituting their own position for analysis, and so they run the risk of under-analysis: taking sides is not analysis.

Thirdly, analysts run the danger of under-analysis through over quotation or isolated quotation. This becomes most evident when the researcher/analyst writes very little compared to the large amount of quotations that are being offered. What this leads to is that the big list of quotes divorces the utterances from their discursive context, and this in turn makes it impossible to analyse them as responses to questions (Antaki et al., 2002).

A similar problem is under-analysis through isolated quotation. This happens when an analyst depends on a single quotation to support an argument without any further comment, but just expecting the quotation to illuminate the argument as self-evident.

Fourthly, the researcher should be aware to avoid using quotations to provide justification for claiming existence of a discourse. This leads to the circular discovery of discourses and mental constructs (Antaki et al., 2002). Antaki et al. (2002) also state that this circularity occurs when the researcher uses these same quotations to imply that participants made specific utterances because they share the discourse.

Fifthly, the analyst might generalise his/her data and findings to the world at large. When this happens it is referred to as under-analysis through false survey.

Sixthly, under-analysis through spotting implies that the mere recognition of conversational features does not constitute analysis. The aim of analysis is thus not merely to give recognition to aspects of talk, but to show a specific feature of talk as action-oriented, how the participants use this feature, and what it is used to accomplish etc. As Antaki et al. (2002) state: "….analysis means a close engagement with one's text or transcripts, and the illumination of their meaning and significance through insightful and technically sophisticated work."

3.6.2 Validity

Throughout the process of doing Discursive Analysis, it is necessary to refer back to the aims of the research and to evaluate the findings in accordance with the research question that has been posed. This is necessary because being a process of exploration and interpretation, Discursive Analysis is also a process of evaluation.

Wetherell et al. (2001) gives a couple of guidelines for the evaluation of research of this nature. Firstly, the research should build on or challenge the claims of other work in the field. In other words, it must be located in relation to previously published work. Secondly, the coherency of the research is mentioned. This means that such research must not make its claims on an emotional level, but should rely on the persuasiveness of its arguments. Thirdly, the negative instances or deviations should be pointed out, so that the research is done from a fallibilistic approach.

Potter and Wetherell (1987) also state that the analysis should attend to inconsistency and diversity. These are features of natural talk and it is necessary to note how participants orient themselves to these features. They state further that, regarding participants' orientation, it is also important that, when looking at consistency and variability, the analyst's judgement of the interpretations are not sufficiently consistent or dissonant. In other words, the participants' view of what is consistent and different is just as important, seeing that they define the meaning in their interaction. The validity of Discursive research relies greatly on the quality of the interpretations made. This can be enhanced through gaining feedback from those

involved (Wetherell et al., 2001).

Potter and Wetherell (1987) also provide three other strategies for the validation of research findings in this type of research. Firstly, they mention the coherency of the analysis. With this is meant that the features of discourse that are evident should fit in with the explanation. Secondly, it must be remembered that discursive resources are created to produce new problems, as well as for solving existing ones. The existence of "old" problems and the creation of new problems provide further confirmation for these resources to be used. The third and final criterion relates to scientific explanation, in other words, whether it can be used to produce new solutions to a problem.

According to Wetherel et al., (2001) the absence of set criteria (as opposed to the set criteria in quantitative research) makes it necessary for the researcher to present arguments for the value of the study.

3.7 Ethics

Before starting this research project, the researcher had to have the research proposal approved by the Ethics Committee of The Faculty of Humanities at The University of Pretoria. This was successfully done in January of 2006.

The researcher made use of written consent forms to obtain the necessary permission from all participants and that of the audio and/or visual engineers involved in the research project. The consent forms, which had been undersigned by all involved in the project, will grant the researcher permission to use the obtained information for academic purposes only and will also indemnify the University of Pretoria against any injury claims. Copies of the consent forms are included in Appendix A.

The researcher also ensured confidentiality and anonymity regarding all information obtained and activities that take place during the research project. In this regard a confidentiality agreement was entered into with the audio / visual engineer (See Appendix A), relating to all recorded information. The researcher effected his own transcription to ensure confidentiality.

The researcher has been actively involved in the sport of rock climbing for the past 7 years,

and feels confident regarding the execution of the research project, as well as ensuring confidentiality and handling of all matters, both research and climbing related, in a competent and ethical manner.

3.8 Relevance

With this research, the researcher hopes to make a contribution to various fields - not only to the academic and scientific fields, but also in the field of sports and specifically in the sport of rock climbing as a professional sport and as a recreational pastime.

Firstly, the researcher wishes to contribute to the field of psychology in the following manner: by supplying a sound and precise example of discursive work and the analysis, collection, and interpretation of data from a naturally occurring point of view and context. DP is a relatively new way of doing research in relation to other existing methodologies, therefore the researcher intends to make use of existing materials to enhance the quality of the project. Consequently the research should aid the expansion of the fields of DP for future projects.

Secondly, this research is aimed to help psychological research methods and matters out of the traditional psychological context and into the naturally occurring situations, in which all people find themselves everyday.. By doing this, the field of psychological matters makes itself available to everyone. This will be made possible by the fact that all data, transcriptions, and analysis will be included in the report, thus enabling readers to form their own interpretations according to what they find relevant and meaningful.

This research aims at contributing to the sport of rock climbing in all its settings and forms, both locally and internationally. This is not only because the sport is viewed world-wide and especially in South Africa as one of the fastest growing sports among all walks of life, but because talk, conversation and difficulty are universally occurring phenomena. In the same way, talk in rock climbing as well as difficulty are primarily universal. As a result the research could be relevant to South Africa as well as other parts of the world. Furthermore, this research is not only relevant for climbers climbing with a partner, but also for those who engage in solo climbing and who often find themselves engaged in internal conversations, or even while conversing with their climbing route!

To summarise, this research hopes to contribute to the field of psychology by making it accessible to all interested parties and by equipping psychologists wishing to work and do research in any kind of sports related field with new and alternative methods of research and intervention. The research also aims at contributing to the field of rock climbing by providing its participants with a new and exciting manner in which to engage in the mental aspect of the sport, as this will play a major role in their successful and enduring participation.

Chapter 4
Results and Analysis

This chapter contains the results and analysis of the research project. In this chapter the analysis results and the discussion thereof will be merged. This will be done because in qualitative research a meaningful presentation of the data analysis can only be achieved and done in the context of the insights that are generated by such an analysis (Willig, 2001).

In order for the researcher to attempt to answer the research question, i.e. which discursive resources and strategies are employed during rock climbing discourses, it is important for this exact question to be the focus of this chapter. Therefore, the researcher will analyse three extracts from the recorded conversations, line by line, in order to identify what the resources and strategies had been which were employed during rock climbing discourses. The extracts were selected at random in order to prevent the researcher from forming preconceived notions of the resources and strategies that are to be revealed within the extracts.

These resources and strategies may include any of a wide range of facets that had been instrumental in the way in which the participants constructed and oriented their interactions. The next chapter will contain a short summary of the major resources and strategies that were employed during the conversations.

Two further points of importance that the researcher wish to state at this stage are the following: firstly, although not all the talk that occurred during the recordings were related to rock climbing, it nevertheless occurred within a rock-climbing context and can thus be regarded as part of rock-climbing discourses. Secondly, to further ensure the anonymity of the participants, they will only be referred to as C1, C2, C3, C4 and C5. C3 is the only female participant in the project.

4.1 Extract 1

The first extract is of a recording that was made at the Chosspile climbing crag. It contains talk among four of the five participants, and starts just as the lead climber and the belayer were about to start on a route.

1	Climber 4:	°we:ll° if you're↑ happy (1.0) then we're↑ happy
2	Climber 1:	(0.7) >are you gonna belay?↑<=
3	Climber 4:	=>YES<
4	Climber 2:	°ri::ght° now we just need a ROPE heh heh heh
5	Climber 4:	[heh heh] <O::H I see> but I
6		have a tendency to forget those↑ when I climb (1.2) heh heh
7		heh heh
8	Climber 2:	are we uuhh >taking that one?<
9	Climber 4:	>yes sure take the GREEN↑ one< it has saved my ass a couple
10		of times heh heh heh heh
11	Climber 1:	DON'T fall on that rope o.k?↑ (1.2) it's just for m(h)en(h)tal
12		backup(.) heh heh heh heh heh
13	Climber 4, 3:	[heh heh heh heh heh heh]
14	Climber 2:	(2.7)thanks! you're >SO motivating today.< (0.9) °no pressure
15		now° heh heh heh
16	Climber 4:	WELL (.) thats not too:: far from the truth!
17		heh heh heh heh heh
18	Climber 1:	[heh heh heh heh]
19	(2.0)	
20	Climber 1:	THAT rope took my↑ biggest lead fall.

In line 1, C4 extends an invitation to C2 to start his ascent of the route. However, instead of using the standard invitation used by climbers, namely 'belay on, climb when ready' the following invitation is used 'well if you're happy, then we're happy'. The use of this different invitation might seem insignificant, but note the use of the word ''if'' in line 1. The use of the word ''if'' sets up the action for which it provides an invitation as an action to which there are certain conditions.

The implication of this statement by C4 seems to indicate that only once the leader (C2) is ''happy'' to start climbing then the rest of the group will be ''happy'' to assist him in his ascent, by either providing a belay, or just by vocal support and motivation. Note how the DP principle of action-orientation is employed in this statement. C4 issues an invitation to C2 to orientate himself to action (climbing). However, it is an action that has certain conditions attached to it, as well as certain consequences: ''if'' C2 is ready to start climbing he may proceed, but ''if'' he is not ready then the rest of the group is not ready either.

Also in line 1 we find the introduction of a brief pause (1.0). Delays and pauses are indicative of two things. Firstly, according to Jefferson (1984), pauses of more than one second are indicative of trouble-talk by the speaker, in other words the speaker is having difficulty when it is his turn at talking, and it also serves as an invitation by the speaker towards someone else to join in the conversation. Secondly Potter and Wetherell (1987) states that participants also listen very attentively to delays, and pay close attention to what follows after a delay.

In line 1 the delay lasts 1 second, which makes it very difficult to hypothesize on its exact function. It might be indicative of C4 engaging in trouble-talk and using it as an invitation for C2 to confirm his readiness or lack thereof to start climbing, or it might be used as a strategy to emphasize what is said directly after the delay. In other words, the rest of the group will wait until C2 is ready to start his climb.

Although it might be impossible to know for certain how C4 intended the use of the delay in line 1, it is more important to note how C2 oriented himself towards this delay. In order to obtain more clarity on this, it is necessary to consider lines 1 – 4 in more detail. In line 1 we find an invitation by C4 towards C2 to start climbing, we also find the delay (1.0),

which might function as either a indication of trouble-talk and an invitation to join in the conversation.

However, if C2 had oriented to this delay as an invitation to join in the conversation or to confirm or deny his readiness to start climbing, surely he would have taken that opportunity. But instead, if we look at the sequence of turn-taking it becomes clear that this is not the case because it is only in line 4 that C2 enters into the conversation with a soft ‘ right’ as indicated by the degree signs on either side of the word.

We also see that neither of the other climbers oriented towards the delay in line 1 as an invitation to join the conversation. At the beginning of line 2 there is another delay of 0.7 seconds which indicates that C1 allowed and waited for C4 to finish his turn at talking, so he too did not orient towards the delay in line 1 as an invitation to join the conversation, but rather as a marker to the importance of what is to follow the delay.

The emphasis and rising intonation (pitch change) of the words ‘‘you’re’’ and ‘‘we’re’’ can indicate turn completing and the projection of continuing concern (Jefferson, 1984). By using these two devices in line 1, C4 also emphasized the importance of C2’s readiness to start and also placed emphasis on group cohesion: if one member is not ‘’happy’’ then the other members are also not ‘’happy’’.

The interaction between C1 and C4 in lines 2 – 3 contains speeded up talk as indicated by the right / left carets. This suggests that this interaction is something that needs to be done or decided on quickly. When C1 asks the question: ‘’Are you going to belay’’ he is cut off by C4, as indicated by the equal signs at the end of line 2 and the beginning of line 3. C4 has thus already decided that he is going to belay C2 on this climb. There is no discernable gap between the turn taking in lines 2 – 3 and no indication of trouble-talk.

Line 4 starts off with C2 uttering a soft sound ‘’°Ri::ght°’’, as indicated by the degree signs on both sides of the word. The manner in which he uses this word indicates that it is employed as personal self assurance that he is now ready to start climbing. He then follows this soft utterance with the phrase ‘’ now we just need a ROPE heh heh heh ’’. In

this phrase there are four features that need to be considered namely the words ‘’we’’, ‘’just’’, ‘’ROPE’’, and the laughter at the end of the phrase indicated by ‘’heh heh heh’’.

Firstly, C2’s use of the word ‘’we’’ further suggests a feeling of group cohesion rather than a feeling of individuality in this climbing context. Seeing that he is about to climb a route, he could have used the phrase ‘’°Ri::ght° now I just need a ROPE heh heh heh’’, but instead he constructed the situation as the group (we) needing a rope. This builds further on the constructed talk that occurred in line 1.

Secondly the word ‘’just’’ is an intensifier, which serves as a discourse marker to place emphasis on what is to follow in the sentence (Peters, 1995). By using this intensifier, C2 places the emphasis on what they now need, i.e. a ‘’ROPE’’. C2 also emphasizes the word ‘’ROPE’’ further by uttering it very loudly as indicated by the use of capital letters.

According to Peters (1995), the loud uttering of a word serves as an exclamation to express various emotions and / or worried expressions, depending on the context. Thus in line 4 the loud utterance of ‘’ROPE’’ can be seen as an indication of C2’s emotional reaction to realizing that he has done all his safety checks and presumes himself to be ready to start his climb, but he has forgotten to attach a rope to his harness.

At the end of line 4 we find an expression of laughter by C2. Jefferson (1984) states that laughter often functions as a time-out during trouble-talk or when participants encounter interactional difficulty. Furthermore, Findlay and Faulkner (2003) also notes that laughter occurs when an utterance is unexpected, and also serves as an invitation to take up the option of laughing together. We can thus assume that C2’s realization that he has neglected to attach his rope was unexpected for him and this might have caused him some interactional difficulty, to which he oriented with laughter.

The expression of laughter in line 4 also functions as trouble-resistance. According to Jefferson (1984) trouble-resistance occurs when a participant expresses laughter while talking about his troubles and functions as a management strategy - in this case to manage the occurrence of trouble-talk. C2 expresses laughter while talking about his

neglect of safety measures to indicate that, although it is troublesome to him, he will not let it deter him from his goal of climbing.

As stated above, laughter also acts as an invitation to join in the laughter. In line 4 we see the laughter expressed by C2 taking up that exact function as it is oriented to as such in line 5 by C4 as he joins in the laughter.

Line 5 starts off with C4 joining in the laughter to which he is invited by C2. C4 then introduces the use of a change-of-state token, the word ''o::h''. According to Heritage (1984), these change-of-state tokens are used when the producer of these utterances (C4) undergoes some kind of change in terms of their locally current state of orientation or awareness. This means that it indicates the receiving of new information regarding oneself or of the situation. In line 5 C4 becomes aware of the absence of the climbing rope, and he orients towards this realization with the utterance of the word ''o::h'' to indicate that he has now become aware of this new information.

He also emphasizes his realization of this new information by making the ''O::H'' utterance markedly louder than the surrounding talk and by the prolongation of the ''O'' sound as indicated by the use of the colons as prolongation markers. He then places further emphasis on his realization by the emphasis he places on the word ''see'' in line 5. He thus not only places emphasis on the verbal information he received from C2 but also on the new visual information he gained by looking and seeing that there is no rope attached yet.

Still in line 5, we find that C4 now makes a statement regarding himself, his climbing and a statement regarding the responsibility for the absence of the rope: ''but I have a tendency to forget those↑ when I climb heh heh heh heh''. C4 seems to make a statement regarding the responsibility for the rope when he states that he has a tendency to forget a rope when he climbs. By doing this he shifts the responsibility for the negligence to himself. However, in sport climbing this is an unacceptable mistake of which C4 is aware. C4 knows that a statement that he has made is unacceptable and he tries to repair this with the use of a disclaimer, the word ''but''.

According to Potter and Wetherell (1987) disclaimers are verbal devices that are used to ward off obnoxious attributions. Disclaimers are thus used by the speaker when he is aware that what he is about to say, might sound unacceptable and he precedes it with a disclaimer to counter this effect. We also perceive how C4 further accepts his responsibility by emphasizing the words ‘‘I’’ and ‘‘have’’. By doing this, he emphasizes that he does have a tendency to forget the rope and this tendency is not something that he used to do in the past, but it is something that he still does.

In this same phrase where C4 states that he has a tendency to forget attaching the rope, we also find two indications that the statement is troublesome for him. Firstly, he pauses for 1.2 seconds and, as Jefferson (1984) notes, pauses of more than one second in length indicate that the speaker is encountering interactional difficulty. Pauses also serves as an invitation to other speakers to join in the conversation in order to aid the speaker in overcoming or interrupting the trouble-talk. However, in this instance none of the other climbers orient towards the pause as an invitation to join the conversation or interrupt the trouble-talk.

The second indicator of interactional difficulty that we find in the phrase is the use of laughter by C4 at the end of his turn at talking. Jefferson (1984), as well as Findlay and Faulkner (2003) state that laughter often works as a time-out during interactional difficulty and it aids in the management of sensitivity that might occur during trouble-talk or interactional difficulty. Laughter also serves as an invitation to join in the laughter. In line 5, the laughter is not oriented as an invitation, but merely serves as an interactional difficulty management strategy that is employed by C4.

When taking a closer look at the turn-taking and interaction that occurs in lines 5 – 6, we observe in line 5 that C4 employed strategies and resources like a disclaimer, emphasizing words, a pause and laughter. We see, however, that instead of orienting to the laughter as an invitation, C2 oriented towards it in a different, more serious manner by uttering ‘’ Are we uuhh >taking that one?<’’.

When a speaker exhibits laughter while talking about his troubles, as is the case in line 5, it is called trouble-resistance, and when another speaker responds to this trouble-resistance with a serious comment (line 6) it is called trouble-receptiveness (Jefferson,

1984). This means that instead of taking up the option of laughing with C4, C2 responds with a serious comment, which indicates that he takes the trouble-talk uttered by C4 seriously.

In line 6 C2 says: '' Are we uuhh >taking that one?<''. Once again in this line C2 places the focus on the climbing as a group activity by using the word ''we'', instead of ''I''. The utterance ''uuhh'' which follows ''we'' is delay strategy, which is associated with trouble-talk, and it is used in error avoidance formats and occurs immediately before problematic elements (Jefferson, 1974).

While keeping this in mind when examining the rest of line 6, we can assume that the speeded-up talk in between the carets ''>taking that one?<'' poses some form of interactional difficulty for C2. Therefore, we can consider it as trouble-talk. The trouble-talk enters when C2 realizes that there are more than one rope to choose from, as indicated by the use of the word ''that'' in line 6. The speeding up of the talk in this phrase indicates that the decision about which rope to choose, is a decision which C2 would like to get over with as soon as possible, further emphasizing the interactional difficulty which he encounters.

In line 7 we find C4's response to the question posed by C2 regarding which rope should be used. C4 gives the following answer to C2's question : '' >Yes sure take the GREEN↑ one< it has saved my ass a couple of times heh heh heh heh ''. The first point of interest in C4's response in line 7 is his employment of speeded-up talk, indicated by the right / left carets. C4 thus orients to C2's inquiry about which rope to use in the same manner that C2 poses the question. Just as the decision about which rope to use is one that C2 wants to resolve as soon as possible, so too does C4 provide a quick and decisive answer.

The speeding up of C4's talk in line 7 also makes it difficult for anyone to interrupt him, and therefore the speeded-up talk facilitates effective decision making as well as the avoidance of arguments as to which rope should be taken. C4 also further emphasizes his decision by placing emphasis on the word 'green' by uttering it much louder than the

surrounding words and the rising in the intonation as indicated by the upward pointing arrow.

According to Jefferson (1984), the use of emphasis and intonation can mark turn completion by the speaker. In line 7 however, we find the emphasis and intonation not near the end of the turn but closer to the middle, and nearer to the end of the decision as to what rope to use. The use of emphasis and intonation in line 7 can thus be considered as an indication of turn completion, especially with regard to turn completion as related to the discussion on which rope to use. We can see that C2 accepts the decision concerning the choice of rope, as he does not resist and only enters back into the conversation in line 10.

In the remainder of line 7 we find C4 talking about previous experiences that he has had with the specific rope: ‘’ it has saved my ass a couple of times heh heh heh heh ‘’. In this line he talks about how the rope has protected him a couple of times in the past, then he starts to laugh, which is indicative of interactional difficulty and trouble-talk. We can thus assume that something about those prior experiences is troublesome for C4, as it causes him to employ a strategy to manage the trouble-talk in which he finds himself engaged in.

We now find that C1 enters into the conversation with a serious comment in response to C4’s laughter expressed at the end of line 7 However this serious comment is not directed at C4, but at C2. Here we once again find trouble-receptiveness as exhibited by C1’s serious comment (line 8) in response to C4’s trouble-resistance in line 7.

In line 8 C1 enters into the conversation for the first time since line 2 with the sentence: ‘’DON'T fall on <u>that</u> rope o.k?↑ (1.2) it's just for m(h)en(h)tal backup(.) hehehehehehh.’’ In this turn C1 uses trouble-receptiveness in response to C4’s trouble-talk in line 7, by responding with a serious comment.

C1 uses various resources and strategies in his turn at talking to emphasize his point and to confirm C4’s statement that the rope in question has been used previously by them. Firstly he starts off his statement with the word ‘’DON’T’’ which he speaks much louder than the rest of the sentence, then he places considerable emphasis on the word ‘’that’’ to

specifically indicate the green rope which they have decided to use. C1 then ends off the first part of his turn with the word ‘’o.k?’’.

In line 8 he is making a statement about the rope, but he constructs it as a question directed at C2, he then follows this by a pause of 1.2 seconds. We see here that C1 is engaging in trouble-talk as indicated by the pause, which is longer than 1 second. This pause might also serve the purpose of focussing attention on and setting up the next phrase as something of importance (Potter & Wetherell, 1987).

‘’ it's just for m(h)en(h)tal backup(.) hehehehehehh’’ is the next part of C1’s sentence in line 8. Note how he employs laughter as a strategy to manage his trouble-talk. First we found the pause of 1.2 seconds and now he laughs while uttering the word ‘’ m(h)en(h)tal’’ as indicated by the parenthesised h’s within the word, and then the brief pause (.) after the word ‘’backup’’.

The statement that C1 makes about the rope is clearly very troublesome for him and causes interactional difficulty. Possibilties for this statement by C1 could be because of the prior experience that he has had with the rope, or because he is uncomfortable with allowing someone else to climb, using a rope that he might feel has reached the end of its lifespan and which he considers no longer safe to be used for climbing.

At the end of line 8 C1 once again uses laughter as a management strategy for his trouble-talk and uses it as an invitation to the other participants to join in the laughter as a strategy to manage the sensitivity of the interactional difficulty. C4 and C3 orients to it as such as they join in the laughter in line 10.

In line 10 C2 starts off with a pause of 2.7 seconds, which is an indication of interactional difficulty and trouble-talk, as stated by Jefferson (1984), and Potter and Wetherell (1987). This interactional difficulty is a result of the statements made by C4 and C1 in the preceding lines 7 – 9. C2 did not orient to either of the invitations to join in the laughter in lines 7 and 8, nor did he orient to the question by C1 in line 8. He remained silent throughout those two lines, but now, in line 10, he starts off with an indication that he is encountering interactional difficulty, and then further on in the line he uses speeded-up

talk, which indicates that he wanted to get past this point of the interaction as soon as possible because it is of a troublesome nature to him.

C2 then again uses a pause (0.9), which is close to one second in duration and can therefore be interpreted as another indication of trouble-talk and as a delay to set up what he is about to say as being important. He follows the pause with '' ºNo pressure nowº heh heh heh''. In this utterance we find two further indications that C2 is troubled, firstly, the soft utterance of the phrase as indicated by the degree on both sides, and secondly, the use of laughter at the end of his turn. Therefore, it is clear that the interaction that has just occurred and the statements that have been made are very troublesome for him - he uses management strategies such as laughter in an attempt to deal with it.

In line 11 C4 orients himself to the statement made by C1 in line 8, regarding the rope. C4 starts off by using the word ''WELL'' in conjunction with a short pause (.) as a delay device to indicate interactional difficulty. Pomeratz (1984) states that the word ''well'' is often used as a preface to disagreements and indicates discomfort. As people are faced with disagreements they use disagreement components first, rather than disagreeing straight away. These are called weak agreements because they are used to preface a disagreement (Pomeratz, 1984). In this interaction C4 uses the word ''WELL'' and the short delay to give himself time to assess C1's statement in line 8. He then realizes that he disagrees with C1's statement, but he manages the disagreement by using a weak agreement.

At the end of line 11 C4 once again uses a management strategy to handle the interactional difficulty - laughter. And we see in line 12 that C1 oriented to this laughter as an invitation to join in it when he engages in laughter himself.

The 2-second pause in line 13 indicates that once again the climbers are experiencing difficulty as they all keep quiet. This laughter is also used as a strategy to set up what is to follow as being very important. In line 14 C1 talks about his previous experience on the rope and the fact that it had taken his biggest fall to date. His statement '' THAT rope took my↑ biggest lead fall'' serves both as a warning that the rope is not brand new and has taken quite severe falls in the past, but it can also be seen as a reassurance to C2 that the rope is trustworthy and can be used for climbing.

4.2 Extract 2

The following extract is of an interaction between the same four climbers as that in extract 1. It starts off with C2 being busy climbing a route, while C1 and C4 are engaged in a conversation at the bottom of the route. C4 is the belayer, and the recording was made at the Bronkies climbing crag in Bronkhorstspruit.

1	Climber 1:	h(h)a(h)s that bottom↓ draw been looking like that the
2		entire↑ time?
3	Climber 4:	uh(.)N(h)O! heh
4	Climber 1:	[ºh(h)o(h)pe n(h)ot ! º]
5		(6.0)
6	Climber 1:	I actually find this one ra::ther difficult for a fif>teen↓<
7	Climber 4:	[>this one?<]
8	Climber 1:	mmmm
9	Climber 4:	>then it has to be climbed<(1.5) will give it a go bit la::ter
10		(63.5)
11	Climber 2:	>O.K. TOP< (0.5) <TI::GHT↑>
12	Climber 4:	(1.0) TI::GHT↓
13	Climber 1:	ºharnessº
14	Climber 2:	[O.K. ti::ght↑] (0.7) COMING DOWN↓(.) LEAVE THIS IN?
15	Climber 4:	uuuhhhh(1.3) draws in↑ or out↓?
16	Climber 1:	(2.0) >out<
17	Climber 4:	YOU CAN TAKE IT OUT!
18	Climber 2:	K SLACK(0.5) >WHOW<(1.0) SLACK(0.7)<WHO::W>
19		SLACK >WHOW<(2.0) SLA:CK >WHOW<
20	Climber 4:	[this is gonna sound ve:ry funny on the recordings]
21	Climber1:	[ºhuh?º]
22	Climber 4:	because (.) >go go go go< <who::h>(0.4) >go go go go<
23		<whow>
24	Climber 1:	[heh heh heh]
25		(25.0)
26	Climber 1:	are you going up?↑

27 Climber 4: (1.0) >just need to smoke first<
28 Climber 1: [>aahh right<](.) ja: then we should
29 probably clean and go do another one(.) ºwhile it's still in
30 the shadeº
31 Climber 4: [preferably]>what< (1.3) >which< do you
32 wanna↑ go(.) thatta way?
33 Climber 1: jip (0.6) I think theres .hhhh another seventeen all↑ the
34 way down at the end*(.) that I think is >ºbeneath the
35 trees and so onº<
36 Climber 4: [ºo.k.º]
37 Climber 1: ah ye:s here in the RD (0.4) rock flower(0.9) a seventeen
38 and eighteen (.) my ex-girlfriends crack (.) that's the one I
39 climbed last time heh heh
40 Climber 3: thats very funny
41 Climber 1: v(h)e(h)ry nice(.) ºbutº >quite tough<
42 Climber 3: mmmm then may:be >we should try that other one
43 again<
44 Climber 1: mmmmmm they're not so far
45 (3.0)
46 Climber 2: who:w(.) >who::w<(.) O.K(.) >thanks<
47 Climber 4: [cool(.) nice↑ one] (2.5) º>fast eh?<º
48 Climber 2: >mmmm not too↑ bad (.) ja this is a nice warm up.<

In line 1 C1 poses a question to C4, who is the belayer, regarding the positioning of the first quickdraw that has been placed by C2. Merely from the nature of the question it can be assumed that there is something wrong with the positioning of the quickdraw. And with closer examination of his question this becomes even more evident.

C1 starts his question with ‘’H(h)a(h)s’’, and this indicates trouble-talk due to the laughter occurring in the word as indicated by the parenthesised h’s (Findlay & Faulkner, 2003). It is thus presumable that what C1 is asking is troublesome to him, in other words there is something wrong with the positioning of the first quickdraw.

While uttering the word ''bottom↓'' C1 also lowers the intonation in his voice, almost as if to further emphasize which quickdraw he is referring to. Then almost at the end of line 1 he uses the word ''entire↑''. According to Potter (1996) words like these are called extreme case formulations and are used as descriptive devices that work to rhetorically strengthen and reinforce descriptions.

When the context of this utterance is taken into consideration it is presumable that C2 has been busy for quite some time on the route, because C1 engages in trouble-talk at the beginning of the line and uses the word ''entire↑''. This means that the length of time that C2 has been climbing and the position of the quickdraw are troublesome for C1.

From the next two lines it becomes evident that the situation regarding the positioning of the quickdraw is very troublesome for both C1 and C4. C4 in line 2 gives three different indications that he is experiencing interactional difficulty. Firstly, he starts by using the word ''Uh'', which is used as a delay strategy when people are engaging in trouble-talk. It is also often used as a strategy in error avoidance immediately before a person encounters a problematic element in their talk (Jefferson, 1974).

Secondly, C4 then also makes use of a short pause (.) as a further delay strategy to indicate interactional difficulty and to set up what he is about to say as being very important. He then utters a very loud ''N(h)O!'' to reassure C1 that the positioning of the quickdraw has not been like that the entire time.

Thirdly, the word ''N(h)O!'' contains plosiveness as indicated by the parenthesised h, indicating laughter, which he uses as a management strategy for the interactional difficulty. Lastly, he once again utters a short burst of laughter at the end of line 2.

C1 in line 2 also uses laughter as a management strategy for his trouble-talk, and he also utters his speech softly, which further indicates trouble-talk and interactional difficulty.

In line 4 there is no speech, only a pause of 6 seconds. This can be attributed to C1 and C4 watching C2 as he climbs the route. C1, in line 5 uses the word '' actually'' to describe his experience of the particular route. According to Peters (1995) the word ''actually'' is an intensifier which is used to emphasize and pinpoint word and descriptions, Hawker (2002) also states that ''actually'' is used to describe something as

existing in fact or reality, and thus gives more facticity to description and makes them more factual.

By doing this, C1 is making his opinion more factual by stating that he finds the route rather difficult for a grade fifteen, and he makes it difficult for anyone to disagree with his claim. At the very end of line 5, he lowers his intonation as indicated by the downward arrow. Jefferson (1984) states that changes in intonation can indicate turn completion, in other words, the end of a person's turn at talking.

However, if we look more closely at line 6 we can see that C1 did not finish his turn at talking merely because he had nothing more to say. He lowered his intonation and stopped talking because in line 6, C4 starts to talk at the same time, as indicated by the bracketed utterance '' [>this one?<]''. Then in line 7 C1 affirms his statement with ''mmmm''.

Line 8 starts with speeded-up talk by C4 as he talks about the route and that it has to be climbed. His speeded-up talk suggests that his decision is one that he took quickly without hesitation, but then, after this part of the phrase it seems as if he is not too sure about his decision. He pauses for 1.5 seconds, an indication of trouble-talk, after which he states that he will try the route a bit later. He places emphasis on the term ''la::ter'' by elongation of the ''a'' sound. This, as well as the fact that he did not say for instance ''after C1 is done'' suggests that the statement he made is troublesome to him.

Also note how he constructs his turn at talking in two very different ways. Firstly, he starts off very speedily with the decision that the route has to be climbed, and it is constructed as if it is something that needs to be done as soon as possible. Secondly, he pauses and says that he will attempt it at a later stage.

Line 9 is a 63.5 second pause, one of the longest pauses that occurred during the entire data collection. Since no talk occurs in line 9, the researcher feels that it will be difficult to attribute this to trouble-talk. He rather feels that it may be due to C1 and C4 watching C2 as he ascends the route.

C2 enters into the extract for the first time in line 10. Although he had been fitted with a recording device he did not talk once during the extract until this point, when he paused

for well over 60 seconds. This is an indication of great interactional difficulty, which seems to stem from the difficulty of the actions (climbing) that he was busy executing.

Now that C2 enters into the conversation he engages in climbing talk about what he has done and what he needs his belayer C4 to do: '' >O.K. TOP< (0.5) <TI::GHT↑>''. He states that he is all right and that he has reached the top anchors of the route. He talks very loudly and, as he is quite a distance from the ground, it would be difficult for his belayer to hear his instructions if he should lower the sound of his voice. He then pauses for 0.5 seconds as he sets up what he is about to say as being important. He then slows his talk down as shown by the left / right carets, and again talks very loudly.

By saying ''<TI::GHT↑>'' he gives his belayer the instruction to take in all the excess slack in the rope, in order for him to position himself correctly to be lowered down. He also raises his intonation, which, according to Jefferson (1984), indicates turn-completion. He informs the belayer that all he requires him to do is to take in the slack and that he has no further requests; he awaits his belayer's confirmation.

In line 11 C4 pauses for 1 second, as he takes in the excess rope. This pause indicates that he is both experiencing interactional difficulty while completing the task, and that he is setting up his turn at talking as being important. He then replies to C2's request with ''TI::GHT↑'', which he utters very loudly, as to indicate to C2 that he has oriented to his request and has complied accordingly. He also uses intonation change to indicate that he has completed his turn at talking.

C1, in line 12 softly says ''°Harness°'', which the researcher finds difficult to place in context, seeing that it is not related to the talk occurring between C2 and C4. However, C1 utters this very softly, so it seems as is if it is a comment aimed at himself, perhaps to remind him of something. At the same time that C1 says ''°Harness°'', C2 replies to C4's confirmation with '' [O.K. Ti::ght↑] (0.7) COMING DOWN↓(.) LEAVE THIS IN ?''. By saying this he is confirming to C4 that all the slack in the rope has been taken in and that he is now completely safeguarded by C4 and the belay-device.

He then pauses and states that he is now ready to be lowered down, he also uses a drop in intonation to emphasize his readiness to go down, but before he starts his descent he once again uses a brief delay (.) before asking another question '' LEAVE THIS IN ?''.

With this question he is referring to the quickdraws that he has placed on his ascent. He wanted to know whether he should leave them in place, or whether he should remove them. If he leaves them in, the next climber merely needs to clip the rope through them. However, if he removes the quickdraws the next climber will have to repeat the procedure of placing the quickdraws.

C4 orients himself to this question in Line 14 by first using a delay strategy ''Uuuhhhh'', and then a pause of 1.3 seconds. Clearly C2's question is causing C4 to engage in trouble-talk, he is not certain whether C2 should leave the quickdraws in, and he shifts the responsibility for this decision to C1 by asking '' draws in↑ or out↓?''. C1 did not expect this and in line 15 he also pauses for 2 seconds. He too is experiencing interactional difficulty, but after pausing to make his decision, he quickly replies with '' >Out<'' indicating that C2 may take the draws out. C4 again resumes responsibility by replying in line 16 that C2 may take them out. He again talks very loudly and places emphasis on the word ''OUT!'', in order to make certain that C2 hears and understands the decision.

Line 17 consists of the commands that C2 is conveying to C4 while he is being lowered. He starts off by acknowledging that he has heard the decision to take out the quickdraws and then proceeds to ask C4 whether he requires him to give slack or whether he requires him to hold the rope tight so that he does not descend any further, in order to remove the quickdraws from the route. Throughout in line 17, C2 uses various pauses (0.5), (1.0), (0.7), (2.0). These pauses indicate interactional difficulty as well as his urge to convey his commands clearly as they are very important (Potter & Wetherell, 1987).

The belayer, C4, then makes a comment in line 18 on how C2's commands will sound on the recordings that are being made. He states that they are going to sound funny, but he uses the word ''ve:ry'' with emphasis and elongation to indicate that they will sound very funny when being listened to. In line 19 it seems as if C1 does not understand clearly what C4 means by his comment as he says ''°huh?°''. The researcher could not find any material on the use of the utterance ''huh'', but it seems as if C1 uses it is a strategy to invite C4 to further explain his statement.

C4 then starts off his explanation with ''because''. According to Potter and Wetherell (1987) the use of ''because'' is related to giving reasons, and thus it possesses a

justificatory function. As C1 invites C4 to explain his statement, C4 orients to this invitation and starts by using ‘’because’’ as an indication that he is about to give the reason for his remark in line 18. He then employs a short pause as a delay strategy to focus the attention on what he is about to say. But instead of providing an exact explanation he gives the following reason ‘’ >go go go go< <who::h>(0.4) >go go go go< <whow>’’. He uses both speeded-up talk and slowed-down talk to illustrate his point.

As C2 descends faster between the quickdraws, he talks faster ‘’ >go go go go<’’ and then, as he needs to slow down and stop at the next quickdraw, he talks slower ‘’<who::h>’’. C4 then uses another short pause (0.4), once again to focus C1’s attention on what he is going to say, and again he uses fast and slow talk to illustrate his point that it will sound very funny on the recordings. C1 then laughs at C4’s explanation and, as stated earlier, laughter serves as a time-out to manage the sensitivities of interactional difficulties. However, it is not clear what causes C1’s interactional difficulty at this point.

It could also be regarded as an invitation by C1 to C4 to join in the laughter. However, C4 did not orient to this as such, seeing that there is an extremely long pause (25.0) in line 22.

C1 then starts again in line 23 by asking C4 whether he is going up next ‘’ Are you going up?↑’’. To which C1 replies, firstly with a pause of 1.2 seconds, which indicates that this question is causing him some interactional difficulty. He then responds quickly by stating that he needs to have a cigarette first. In line 25 C1 responds with a change-of-state token, the word ‘’aahh’’. Change-of-state tokens are used as responses to new information and are used by the producer to indicate that they have undergone some kind of change in their locally current state of awareness.

It seems as if C1 has become aware of C4’s need to smoke first before he wants to climb. He then uses a quick pause to set up the rest of his turn as being of importance. By doing this, he is telling C4 that they should probably hurry up and finish this route in order to proceed to climb another one as well. By employing another short pause he also constructs it as being important that they do so while the other routes are still in the shade. This statement seems to be troublesome for C1, as he says it rather softly in comparison to the rest of his sentence

C4 then overlaps his speech with that of C1 in line 26, as he says ‘’ (preferably)’’. By saying this, he is constructing that he agrees with C1’s statement. He speeds up his talk with the word ‘’>what<’’, but then finds himself engaging in trouble-talk at this point as indicated by the 1.3 second pause. He attempts to repair what he has said, by again speeding up and saying ‘’which’’. At this point C4 is trying to repair his previous construction of where the routes are that C1 is talking about.

This aim at repairing his previous construction indicates that it is a source of trouble for him. Hutchby and Wooffitt (2001) calls this a self-initiated self-repair, they state that it is a repair that is both initiated and carried out by the speaker of the trouble source. It seems that C4 is trying to repair his construction of what route they should go and climb, to either which route, or which way they should go. C4 then again uses a short delay before he asks the question ‘’ thatta way?’’.

In line 27 C1 orients himself to this question as he gives an affirmative ‘’Jip’’. He then sets up his words that are to follow as important as he employs a short delay of 0.6 seconds, after which he uses a hedge word / device ‘’think’’. According to Potter (1996) hedge words and devices are used to construct a description as partial or defective in some way and it can then be used as a resource for manoeuvring within that description.

This means that if C1 is challenged on his statement that there is a seventeen or eighteen further down and he has room to manoeuvre him within that description. In other words, he can then state that he has said ‘’I think’’ and not ‘’I know’’. Again, further on in line 27 he uses the same hedge device again ‘’that I think is > ºbeneath the trees and so onº<’’. It seems that he realizes that this statement of his might be challenged if it is found to be untrue, and this seems to be a source of trouble for him as he speeds up his talk and utters it softly at the end of line 27.

In line 28 we also find an indication of trouble-talk by C4 as he softly says ‘’ (ºO.k.º)’’. It seems that he realized the troublesome nature of C1’s talk and reacted to it in much the same manner.

C1 then confirms his statement of line 27, in line 29 when he says ‘’ Ah ye:s here in the RD rock flower(0.9) a seventeen and eighteen (.) my ex-girlfriends crack (.) that's the one I climbed last time.’’. He starts off using a change-of-state token, the utterance ‘’ah’’.

These tokens are used when the producer becomes aware of some kind of change in their locally current state of orientation or awareness, it is used as a response to new information (Heritage, 1984). In his turn at talking C1 has taken a look in the route directory (RD) and has become aware that he was correct about his statement in line 27.

He then continues with his confirmation by stating the name of the first route ‘’rock flower’’, followed by a short pause to focus the attention on what he is about to say ‘’ a seventeen and eighteen’’ which he follows with another delay device (.) to focus attention on the name of the route ‘’my ex-girlfriends’ crack’’. He then finishes his turn by stating that it is the route that he had climbed on his last visit and then laughs. This laughter serves as an indication of trouble-talk to which C3 orients herself in line 30 with the comment ‘’ Thats very funny’’. This orientation toward C1’s talk seems to be of a more serious nature, as it does not contain any laughter, merely a reference to what has been said as being funny. This shows that C1 showed trouble-resistance while talking about his trouble, and that C3 oriented to it as such and replied with trouble-receptiveness in the form of a serious comment.

C1 again in line 31 shows signs of trouble-resistance when he talks while laughing as is seen in his comment ‘’ V(h)e(h)ry nice(.) ºbutº >quite tough<’’. He then uses the word ‘’°but°’’ which, according to Speer and Potter (2000), is used when the producer thereof wants to indicate that he is about to offer another and different description from the one he gave before. This signals that the description or account that is to follow is in opposition to that which has already been said - and this is exactly what seems to happen in line 31. C1 starts by telling that it is very nice, but then he offers another opposing description, one of it being quite tough.

An interesting fact relating to this section of the extract that the researcher wishes to point out is that C1 and C3 have been in a relationship for the past three years, and it seems as if this might have played a role in the manner in which they reacted to each other’s comments, even though the route ‘’my ex-girlfriends crack’’ has nothing to do with C1’s ex-girlfriend.

C3 does not respond with amusement or laughter in any of the interaction. In line 32 she again responds to C1’s trouble-talk and trouble-resistance with a serious comment ‘’

mmmm then may:be >we should try that other one again<'' and by doing this she again shows trouble-receptiveness towards C1s' comment.

Line 34 is a 3-second silence as the climbers on the ground watch as C2 descends the final part of the route. Then, in line 35, C2 gives his final commands to C4 (the belayer) to slow him down as he nears the ground, by saying '' Who:w(.) >who::w<(.)''. He first says '' Who:w'' with somewhat of an elongation sound to emphasise that the belayer needs to slow down his descent.

He then follows this with a short pause (.) in order to set up his next utterance as important. His next word again is '' >who::w<'', but this time with an even longer elongation sound as indicated by the double colon. It seems that, after his first request to be slowed down, C4 did not react in the manner that C2 expected, and he then again requests him to slow him down, but this time he says it faster (right / left carets) and with even more of an elongation to make sure that his request is heard and understood properly. C2 then says loudly ''O.K.'' to confirm that all is well and that he is safely on the ground, followed by a quick ''>thanks<''.

Line 36 sees C4 overlapping his speech with that of C2 in line 35, indicated by his words in brackets. He pauses shortly and then tells C2 that he has climbed very well by saying ''[Cool(.) nice↑ one]'', in which he raises his intonation as to place emphasis on the fact that C2 has climbed very well. It then seems as if C4 is encountering some interactional difficulty or trouble-talk as he pauses for 2.5 seconds and then quickly and softly asks ''°>Fast eh?<°''. C4 constructs this question as one to which he requires a quick answer, and C2 orients to this as he also quickly replies '' >mm not too↑ bad (.) ja this is a nice warm up.<''.

He uses the word '' too↑'' as an indication that he experienced the route as in between very easy and difficult. He then pauses for a moment (.) seeming to ponder his statement for a moment, and then changes his statement by saying '' ja this is a nice warm up.<'', indicating that he has changed his opinion about the route being intermediately difficult, to being a lot easier and being a nice route on which to warm up.

4.3 Extract 3

This extract contains very little talk about climbing. However, the researcher felt that it would be interesting to include it in the research report. The reason for this being that, during rock climbing, it seems that the talk that occurs is not limited to climbing itself, but also to a wide range of other topics, and the researcher feels that it is important to include these other topics in the report. The extract is from a conversation between all five of the participants while none of them are busy climbing, but standing on the ground and enjoying some snacks and refreshments while checking the gear and preparing for a next route. It was recorded at the Bronkies climbing crag.

1	Climber 2:	I mean a little one has even called me captain hook so -
2	Climber 5:	captain hook↑ IS a coo::l dude (.) dude pirates in general
3	Climber 2:	[>°yeah pirates are
4		the coolest°<]
5	Climber 3:	ye:s
6	Climber 5:	but not the new ones that like uhhm (1.4) drive around
7		in yachts with guns I mean the ones with knives and (1.2)
8		AAAARRRGGGG!
9	Climber 1:	[aaaarrrrrggggg]
10	Climber 3:	ja with the knives AND the swo:rds
11	Climber 2:	ahoy >me matie↑<
12	Climber 1:	(Inaudible speech °°)
13	Climber 2:	month or so ago it was (.) national talk like a pirate day=
14	Climber 4:	=>serious?↑<=
15	Climber 2:	=yeah you must go check it out (.) >speak like a pirate
16		day dot com< then the whole day is dedicated to
17		speaking like a pirate(0.5) >there's a whole list of words<
18		you can say↓(.) words like avast! means stop if there is
19		(0.9) if you see something like a trea↑sure(.) and like
20		davy jones' locke:r is like you know the bottom of the
21		ocean(.) >walk the< pla::nk
22	Climber 3:	yeah º walk the plank º

23 Climber 5: that sounds cool(0.6) but I will have my o::wn secretive
24 speak like a pirate day >you tell nobody whats going
25 on<(.) >you just talk to everybody like a pirate<
26 Climber 3: [>thats what I↑ do↑<(.) >I did it for a week↑<]
27 Climber 1: yeah she did ! >what's that movie?<=
28 Climber 3: =dodgeball(.) ma:n that was a f(h)un(h)ny movie that
29 Climber 1: have you seen it?
30 Climber 2: (1.3)>°not yet no°<
31 Climber 3: that was very cool heh heh heh
32 Climber 1: >let me just put all the important things in place
33 heh heh heh< (0.4) can I put that guy on?
34 Climber 5: uh(1.4) y(h)e(h)s
35 Climber 1: is it a hard decision?
36 Climber 5: >no (.) I was just thinking↓<
37 Climber 3: He was still thinking of the pirates
38 Everybody: [heh heh heh]
39 Climber 5: ACTUALLY (.) I would love to have one of those
40 ships(0.7) beau::tifull
41 Climber 4: yeah it's a pity they don't make them anymore (.) then 42
we can get our own crew↑
43 Climber3: yeah >those little deck hands< (1.3) >twelve year
44 old kids that are gonna grow up< on the ship and
45 scrub the who:le time that's all they do their entire↑ lives
46 (2.1) >just scrub<
47 Climber 5: SHIVVER ME TIMBERS LADS!
48 Climber 2: [just give me a hook >a hook and an eye patch< I will be
49 happy]
50 Climber 3: yeah if you -
51 Climber 5: so if you're ready -
52 Climber 1: >right ready↑<
53 Climber 2: >ARGH! right I'm rea:dy<
54 Climber 1: climbing (1.4) UUHHH↑

In line 1 C2 tells of how he was called Captain Hook by a ''little one''. With ''little one'' C2 is referring to a small child and Captain Hook, of course, is the evil pirate that wanted to capture Peter Pan and his group of runaway children in J.M. Barry's book ''Peter Pan''. The topic of pirates is also what this extract is about. By talking about being called ''Captain Hook'', C2 is using a previous experience as a strategy to make his construction more believable, and to maintain and enhance his footing in the conversation.

Another point of interest is that, prior to C2's mentioning of pirates, no reference was made to pirates anywhere in the recordings. Therefore, by starting to talk about his previous experience relating to pirates he opens up an entire new avenue for the conversation - to which C5 orients himself immediately as he cuts C2 off at the end of line 1, indicated by the dash (-), and starts constructing his ideas about pirates in line 2.

In line 2 C5 uses various strategies to construct his view on the character of Captain Hook and pirates as he says ''Captain Hook↑ IS a coo::l dude (.) dude pirates in general''. First he affirms his view of Captain Hook being very ''coo::l'' by using the word ''IS'', which of course refers to the present tense, he also says this very loud to emphasize his view. He then also elongates the word ''coo::l'', with the use of the colons. By doing this, he is not merely constructing it as an ordinary level of coolness, but one that goes much further. C2 then uses a short pause as a delay device to construct his following words ''dude pirates in general'' as being important. It seems that C5 does not only view Captain Hook as being cool, but also any kind of pirate.

In line 3 – 4 it seems that C2 is now engaging in trouble-talk or that the preceding interaction has been a source of trouble for him, as he says quickly but quietly ''[>°Yeah pirates are the coolest°<]''. His talk at this point overlaps with that which C5 said in line 2. When looking at how the interaction in lines 1 – 4 were constructed, it seems as if C5 is experiencing interactional difficulty in lines 3 – 4 because of what happened in his first turn at talking, line 1. C2 introduced the topic of pirates and used previous experience as a strategy to maintain and enhance his footing in the conversation, but he was cut off by C5 at the end of line 1.

This seems to have been a source of trouble for him and he exhibits this in lines 3 – 4 as he talks fast and soft. But although it seems that this turn at talking is troublesome for C2,

he still strengthens his statement by the use of the word '' coolest'', which is an extreme case formulation used to strengthen arguments and displays investment in arguments (Potter & Edwards, 1999).

Climber 3 then joins the conversation in line 5 by stating the she feels the same about pirates by giving a somewhat elongated ''Ye:s'' as indicated by the colons. In line 6 C5 starts off by using the word ''but'', which, according to Speer and Potter (2000), is used to indicate that what is about to be said is in opposition to what has already been said. C5 is using ''but'' in line 6 to indicate that the opinion that he is about to give, is going to be an opposing view to the one that he gave in line 2. In line 2 he stated his opinion that he regards pirates as being cool.

However, in line 6 he states an opposing view when he says '' but not the new ones that like uhhm (1.4) drive around in yachts with guns I mean the ones with knives and AAAARRRGGGG!''. In this line he is referring to present day pirates, and he makes it very clear that this is what he is referring to by describing them as ''new''. By using the word ''new'' it seems that he is referring to them as being modern.

Further on in line 6 it seems as if C5 is running into some interactional difficulty as he utters ''uhhm''. According to Jefferson (1974), ''uhhm'' is a delay strategy that indicates trouble-talk and it is used in error avoidance format immediately before a problematic element. C5 then also gives another indication of trouble-talk in line 6 as he pauses for 1.4 seconds (Jefferson, 1984). After these two indications of trouble-talk C5 says ''…drive around in yachts with guns I mean the ones with knives and (1.2) AAAARRRGGGG!''. This could have been troublesome for C5 for two reasons:

First, a ship or boat, as used by pirates, is not driven, rather it is sailed or steered, and second, pirates did indeed use knives, but their primary weapons were swords, which C5 does not mention, but he pauses for 1.2 seconds, which indicates trouble-talk. In line 8 he uses a phrase / utterance that is almost synonymous with pirates ''AAAARRRGGGG!''. It almost seems as if he is using this phrase to compensate and distract attention from the trouble-talk as he says it very loudly and with an animated and emphatic tone as indicated by the exclamation mark.

In line 9 C1 joins the conversation as he also says ‘’[aaaarrrrrggggg]’’, which overlaps with C5’s talk in line 8. The researcher does not wish to make any assumptions about this, because he feels that not enough information is available to interpret this further, and he merely sees it as an indication that C1 has been listening to what was said and is now joining the conversation.

C3, in line 10, seems to attempt to help C2 as regards his interactional difficulty as displayed in lines 6 – 8. It appears that she realized that he was experiencing trouble-talk and attempts to help by saying ‘’ Ja with the knives AND the swo:rds ‘’. She helps him by using the word ‘’AND’’, and saying it loudly, to indicate that pirates did not only use knives but also swords. C2 then realizes what C3 is doing and he orients toward this as he responds with ‘’ Ahoy >me matie↑< ‘’ in line 11. The word ‘’Ahoy’’ was used by pirates to greet someone, and the word ‘’matie’’ was used to refer to a shipmate, in other words someone with whom a pirate would spend a lot of time on the open seas and in dangerous situations (Anonymous, 2004). In this context C2’s greeting indicates that he regards C3 as a friend in dangerous situations like, for example, his interactional difficulty in lines 6 – 8.

The researcher was not able to make any transcription of what was said by C1 in line 12 as it was spoken extremely softly and was inaudible on the recordings. In line 13 C2 says ‘’ Month or so ago it was (.) national speak like a pirate day ‘’, the use of the word ‘’or’’ indicates that he is not exactly sure of the exact time that he is talking about, but by using the ‘’or’’ he is giving himself space to manoeuvre within his description should he be challenged on what he has said. He then also uses a brief pause (.) to focus the attention on what he is going to say, that it was ‘’ national speak like a pirate day ‘’. It seems as though he is placing emphasis on the word ‘’ national’’ to construct what he is talking about as something important of which everybody ought to be aware.

C4 orients to this very quickly in line 14, as seen by the absence of a discernable gap between lines 13 – 14, as indicated by the presence of the two equal signs. C4 quickly asks C2 whether he is ‘’ >Serious?↑<’’, in which he raises his intonation to indicate that he is finishing his turn (Jefferson, 1986). Now C2, in turn orients to C4’s question very quickly in lines 15 - 21, as again the equal signs indicates the absence of a gap between lines 14 and 15.

Lines 15 – 21 contain C2's confirmation to C4's query in line 14, and a further explanation on what he meant in line 13. In line 15 he starts with the word ''Yeah'', which Heritage and Sefi (1992) calls an agreement-implicative acknowledgment token. C2 uses this to acknowledge and to state that he is serious about his talk in line 13. He then further reaffirms his statement by saying that they ''…must go check it out'', placing emphasis on ''must''. He then pauses again briefly to focus attention on what he is about to say by using the short delay (.) (Potter & Wetherell, 1987).

In the final part of line 15 and the beginning of line 16 he then gives an explanation of what he has meant by ''… must go check it out'', when he speeds up his talk and says '' >speak like a pirate day dot com< ''. By saying this, it seems as if he is saying that there is a website on the Internet that contains information on national speak-like-a-pirate day. In the remainder of his turn (lines 16 – 21) C2 further explains what kind of information regarding pirates and the way they talk is available on the website. In this remainder of his turn he uses devices and strategies like pauses and delays, speeding up, intonation changes, emphasis, and elongation to construct his experience of what he found on the website.

Line 22 starts off with C3 using the agreement-implicative acknowledgement token ''Yeah'' to indicate that she agrees with what C2 has just said, and then softly says '' ° walk the plank ° ''. It seems as if she is also acknowledging that this term is one that she is familiar with. Lines 23 – 25 is a construction by C5 of his opinion about what C2 has said in lines 15 – 21, but it is also his construction of how he would do it differently.

At the start of line 23 he agrees that the idea behind ''speak like a pirate day'' is a good idea, then he pauses briefly and uses the word '' but '', which, according to Speer and Potter (2000), is used to signal that the description / account that is to follow is in opposition to what has already been said. By saying '' That sounds cool(0.6) but I will have my o::wn secretive speak like a pirate day…. '' he constructs that he agrees that it is a good idea, but that he personally would prefer to have his own day like that. He is thus agreeing with C2, but he is also, in a sense, disagreeing with him.

In lines 24 – 25 C5 further explains what he has meant by his words in line 23 – 24. He speeds up his talk as he starts his description with '' >you tell nobody what's going on<'', then he pauses and then continues by explaining why he would not tell anybody.

In his account of what he will do on this day (line 25) he also employs an intensifier, ''just'', as a discourse marker to spotlight what follows (Peters, 1995). He then follows this intensifier with a description of whom he was going to talk to like a pirate. To strengthen his description he makes use of an extreme case formulation, '' everybody ''. Potter (1996) states that extreme case formulations are the extreme points of a relevant description dimension, in this case ''everybody'', and they are used to strengthen arguments or descriptions. C5 is using the extreme case formulation in this context to state that he will be willing to talk like a pirate to anybody, irrespective of his or her age, gender, status and so forth.

Line 26 seems to be an orientation by C3 to C5's description in lines 23 – 24. C3 overlaps C5's talk in line 25 with her account '' [>Thats what I⇑ do↑<(.) >I did it for a week↑<] '', she thus oriented to his talk about his own secret day and that he would not tell anybody. She did not wait for him to finish talking, as she felt that what he was describing is something that she has already done, and it seems as if she knew what he was going to say and did not deem it necessary to wait for him to finish his turn. Jefferson (1986) found that, when overlapping occurs, participants tend not to view it as an interruption, but rather as part of turn taking if they orient to it as such. This appears to be the case in this instance, seeing that C5 did not stop talking, but continued to finish his turn.

In line 26 C3 uses the word ''I'' on two occasions. The use of the word ''I'' is referred to as footing, and it is used to increase the facticity of an account or description. It also indicates to what an extent the speaker is presenting a factual account as his own, or distancing himself from it (Potter, 1996).

C3 is constructing her talk as being very factual. This she does by using a short pause to set up what she is about to say as being very important. She further increases the facticity of her account by specifying the period of time during which she had been engaged in the action mentioned.

In line 27, C1 gives a further account and acknowledgement of C3's talk mentioned in line 26 as being factual, as he uses an agreement-implicative acknowledgement token by

saying ‘’yeah’’. These tokens are used to indicate that the speaker is agreeing with something that has been said immediately preceding his turn (Heritage & Sefi, 1992). However, he does not offer any further accounts or descriptions to elucidate. As an alternative he changes the topic of conversation by speeding up his talk and asking a question ‘’ >what's that movie?<’’. He seems to be speeding up his talk to prevent being interrupted by any of the other climbers.

Line 28 sees how C3 orients to C1’s question as, without hesitation, she answers ‘’ =Dodgeball(.) ma:n that was a f(h)un(h)ny movie that ‘’. The equal signs at the end of line 27 and the start of line 28 shows that there is no discernable gap between these two turns at talking. C3 thus immediately oriented to C1’s question and answered him accordingly.

While saying the word ‘’ f(h)un(h)ny ‘’, she laughs, indicating that something in her talk is troublesome to her. It is not clear what might be so troubling about her talk, but Findlay and Faulkner (2003) notes that laughter often occurs when an utterance is unexpected. In this context it could be that the promptness of her answer to the question could indicate that she had found the question to be rather unexpected, and that she therefore used laughter as a management strategy to handle the sensitivity of the situation.

Findlay and Faulkner (2003) state that laughter can also function as an invitation by the producer thereof to someone else to join in the laughter. However, this is not the case in line 29, as none of the other participants made use of the option to join in the laughter. Instead, in line 29, C1 asks C2 whether he has seen the movie mentioned.

This question seems to cause C2 some interactional difficulty as he pauses for 1.3 seconds, which, according to Jefferson (1989), indicates trouble-talk. He then quickly and softly responds in line 30 with ‘’ >ºNot yet noº< ‘’. It appears that the fact that he has not yet seen the movie that they are talking about is causing him some difficulty as it would prevent him from joining the conversation or discussion about the movie.

‘’ That was very cool heh heh heh ‘’ in line 31, seems to be a response by C3 to manage the sensitivity and interactional difficulty exhibited by C2 in line 30. C3 responds to C2’s interactional difficulty in line 30, by stating that the movie was very cool. By constructing

her talk in this manner, she does not make him feel guilty about not having seen the movie yet, but rather constructs it in a manner as to indicate that it was a good movie and that he should see it whenever he has the opportunity. She then uses laughter at the end of line 31 in an attempt to manage the sensitivity of the situation (Findlay & Faulkner, 2003).

The first reference made to climbing in this extract is found in lines 32 – 33 as C1 says '' >Let me just put all the important things in place heh heh heh< (0.4) can I put that guy on?''. The first aspect to take note of here is the way in which C1 speeds up his talk. By doing this, he creates the impression that he wants to put on all the important equipment needed for climbing in order for him to commence climbing as soon as possible. He uses an intensifier ''just'', which is a discourse marker to highlight what he is about to say. He uses ''just'' to emphasize that he now needs to put all the important things in place. In this context he is referring to the climbing gear and equipment that he needs to put on before he can start climbing.

C1 also uses an extreme case formulation, ''all'' to strengthen his description of what he is going to do, and by placing emphasis as indicated by the underscore, he further strengthens his description of wanting to put on all the necessary gear. He then laughs and pauses briefly to see if any of the other climbers are willing to join in the laughter, to which none of them orient themselves. After the delay of 0.4 seconds he asks '' .. can I put that guy on?'', thus referring to the rope that still needs to be attached to his harness. He uses ''I'' as a device to increase his footing. In other words, he is taking ownership and responsibility for what he wants to do, and he is presenting it as more factual (Potter, 1996).

In line 34, C5 orients to C1's question, but he does not do so immediately. He starts off by uttering ''uh'' and then pausing for 1.4 seconds. Both of these devices give an indication that C5 is experiencing trouble-talk. When asked by C1 whether he could attach the rope, C5 experienced interactional difficulty in orienting effectively to C1's question and thus used these two devices to allow him time to re-orient himself effectively.

After he had been able to re-orient himself he responded with ‘’yes’’, indicating to C5 that he may now attach the rope. C5 also exhibits laughter while he is experiencing this interactional difficulty, and in line 35 C1 seems to be aware of this, as he responds with a more serious comment / question in ‘’ Is it a hard decision? ‘’. This interaction shows how C5 engaged in trouble-resistance as he used laughter as a strategy to manage his interactional difficulty, while C1 reacted in turn with trouble-receptiveness in that he responded with something serious.

C5 orients and responds to this question in line 36 with ‘’ >no (.) I was just thinking↓< ‘’. It appears that C5 would like to move past this point in the conversation as soon as possible as he speeds up his talk in this line. He denies that it is a hard decision for him, then pauses briefly, and uses ‘’I’’ to increase his footing in order to make his account of what he was doing more factual. The use of ‘’I’’ in this context also shows how far he is presenting his factual account as his own (Potter, 1996). C5 then also uses the word ‘’just’’, which is a discourse marker used to spotlight what is to follow, to further make his account of what he was doing more factual. He then states that he was merely thinking about something. It seems that, at this point, he does not wish to elaborate any further on what he was thinking about, as he uses a change in intonation (↓) to indicate that he has finished his turn at talking.

At this point in line 37, C3 orients to C5’s comment in line 36, and constructs what she thought that he was thinking about when she responded by saying ‘’ He was still thinking of the pirates ‘’. Her comment seems to have been unexpected as it elicits laughter from all the climbers as shown in line 38. Then, in lines 39 - 40, C5 responds to C3’s comment about the nature of his thoughts. First and foremost he starts with the word ‘’ ACTUALLY ‘’, which he says very loud and which, according to Peters (1995), is used as an exclamation to express various emotions depending on the context. It seems that C5 is using it to express his surprise at C3’s comment in line 37.

He also uses the word to describe his account of what is to follow as being a point of fact, thereby increasing the facticity of his account. In this context, ‘’ ACTUALLY ‘’ also works as an intensifier used to pinpoint and emphasize words (Peters, 1995). C5 is using it, together with a brief pause (.), to pinpoint what he was actually thinking about ‘’ I would

love to have one of those ships(0.7) beau::tifull ‘’. He then further employs the use of a pause of 0.7 of a second to further pinpoint what he thinks of those ships ‘’ beau::tifull ‘’.

In line 41 C4 enters into the conversation again for the first time since line 14, with the agreement-implicative acknowledgement token ‘’ yeah ‘’, which he employs to indicate that he does agree with what C5 said about the ships being beautiful. He then also goes further in his description of what they could do if they had a ship like that by pausing briefly and then saying ‘’ then we can get our own crew↑’’, after which he changes his intonation (↑) to indicate to the other climbers that he has finished his turn at talking.

In line 43 C3 orients to C4’s description, also with the agreement-implicative acknowledgement token ‘’ yeah ‘’ to indicate that she agrees with him, and then she continues by providing her own description ‘’ >those little deck hands< (1.3) >twelve year old kids that are gonna grow up< on the ship and scrub the who:le time that's all they do their entire↑ lives (2.1) >just scrub<’’. Her description here seems to cause her some interactional difficulty as she speeds up her talk, then pauses for 1.3 seconds and speeds up her talk again, almost as if she wanted to move past this point as fast as possible. She then also uses two extreme case formulations ‘’all’’ and ‘’entire↑’’ to strengthen her description of what her crew will do if she had her own pirate ship. This again seems to cause her some interactional difficulty as she pauses for 2.1 seconds and then speeds up again in order to finish her turn at talking.

In line 47 C5 orients to C3’s description of how she will run a crew on her ship and he reacts with ‘’ SHIVVER ME TIMBERS LADS!’’. This phrase was used by pirates to state that they are shocked and amazed by something that they have seen or heard (Anonymous, 2004). C5 uses this phrase in the same manner, to indicate his amazement at what C3 has said. He also strengthens this by saying it very loudly, which indicates that he is expressing it very emotionally (Peters, 1995).

Simultaneously with C5s’ exclamation in line 47, C2 overlaps his talk by saying ‘’ [just give me a hook >a hook and an eye patch< I will be happy]. In this turn he is constructing his account of what he will be content with as a pirate. He feels that a crew is not necessary, he just needs a hook and an eye patch. He refers to himself specifically by

using the word ‘’I’’, which serves the purpose of increasing his footing in his description, and shows that he views this as his own factual account.

In line 50, C3 shows that he agrees with C2’s description as it appears in lines 48 – 49 by using the agreement-implicative acknowledgement token ‘’yeah’’ (Heritage & Sefi, 1992). He then also uses the word ‘’if’’ to set up what he is busy saying as something for which there are certain conditions that need to be adhered to. However, he never managed to complete his statement, as he was interrupted by C5, as indicated by the dash. C5 then starts his account in line 51 by also using ‘’if’’ and thereby attempts to set up his account as something with certain conditions attached to it, but he is also unable to finish his turn as he too gets cut off by C1 in line 52.

C1 then quickly replies to C5’s statement ‘’ so if you're ready –‘’ with ‘’ >right ready↑< ‘’. The manner in which he constructs this, creates the idea that he has become impatient with the other climbers and their talk. He has now decided to quickly intervene by saying that he is now ready to climb. It seems as if he has been waiting for the others to finish their talk in order for him to start climbing, because he has not spoken since line 35 when he had already been preparing to start climbing.

C2 responds to C1’s statement in line 53 by promptly responding with ‘’ >ARGH! right I'm rea:dy< ‘’. It seems as if he has become aware of C1’s growing impatience and therefore responds quickly to avoid C1 from becoming more frustrated. At this point both the climber (C1) and belayer (C2) has stated that they are ready to start climbing and belaying, but instead of continuing with the normal vocal procedures of starting a climb, C1 in line 54 only says ‘’ climbing (1.4) UUHHH↑ ‘’. He merely indicates that he is now starting to climb and does not wait for C2 to confirm with him, he then runs into interactional difficulty as he pauses for 1.4 seconds and utters ‘’ UUHHH↑ ‘’, which is used as a delay strategy when someone is experiencing trouble-talk. At this point it seems as if C1’s neglect of the proper procedures before climbing has caused him interactional difficulty.

4.4 Conclusion

This chapter contains the analysis and discussion of the research results. The researcher completed this task in so far as he was capable and competent to do so effectively. However, he also aimed to allow readers enough freedom and space to conduct their own analysis and reach conclusions in accordance with the ideas inherent in DP research.

The next chapter will contain the final conclusions concerning the discursive resources and strategies that are being employed during rock-climbing discourses. Although this might seem to be fairly similar to the contents as contained in this chapter, the rationale behind this nevertheless takes into account the fact that readers might not all be familiar with DP, and by giving a final conclusion on its resources and strategies and what they are employed to do, the researcher hopes to present a clear and precise conclusion to the findings of the research project. The final chapter will also include the limitations of the study, as well as recommendations for future endeavours in this direction.

Chapter 5

Conclusion and Recommendations

This chapter contains the conclusion to the findings of this research project. The conclusion will be done by identifying the resources and strategies that were employed by the participants during the recording of the extracts in the previous chapter. These will also be explained in more detail as to what they do or aim to do when they are used in talk. Subsequent to which discussions on the limitations of the study will follow, as well as recommendations for future research.

5.1 Conclusion

It became evident to the researcher in the initial stages of the analysis of the extracts that various resources and strategies were employed during rock climbing discourses. These included transcription symbols that served a purpose in the interaction to specific devices that were used by the participants to achieve certain goals within their interaction with each other. All these are far too many to be dealt with in this chapter, therefore an overview will be provided of those that were most evident in the functions and actions that they helped to accomplish.

The first of the above-mentioned that the researcher needs to mention, is the use of laughter. Not because it was employed more often than the other resources and strategies, but because within the context of climbing, which has within it an inherent difficulty, it was employed to accomplish various tasks and actions. These included, as stated by Jefferson (1984), functioning as a time-out during trouble-talk and when interactional difficulty is experienced. According to Findlay and Faulkner (2003), laughter also occurs when a speaker's utterance / talk is unexpected and it serves as an invitation to others to join in the laughter. It also serves the purpose of managing the sensitivity that might arise during times of trouble-talk and when interactional difficulty is experienced, all of which are evident when looking at the research results and analysis.

Jefferson (1984) also noted laughter as a management strategy in the form of trouble-resistance that occurs when the speaker exhibits laughter while talking about his

troubles. This serves as an indication that the speaker is not allowing the trouble to get the best of him.

Pauses and delays were also a common occurrence during the interaction. These pauses and delays serve two purposes. Firstly, as stated by Jefferson (1989), when a pause exceeds 1 second it indicates trouble-talk and interactional difficulty. Secondly, if a pause lasts for less than 1 second it functions as a delay device, with the purpose of attracting attention to what the speaker is going to say next (Potter, 1987).

Pauses and delays were employed rather frequently in the extracts, and it seems as if this was partly due to the nature of the context (climbing) and its inherent difficulty. The utterance ‘’uh’’ and its various other forms quite often occurred. According to Jefferson (1984), it functions as a delay device when a speaker is encountering, or is engaged in trouble-talk. Jefferson (1974) also notes the use of ‘’uh’’ in error avoidance formats that occur immediately before a problematic element in talk.

The researcher wishes to point out two intensifiers that were also employed. These intensifiers were the words ‘’just’’ and ‘’actually’’. The function of these intensifiers is to emphasize and pinpoint words. They also serve as discourse markers that highlight / spotlight what is to follow (Peters, 1995). The word ‘’actually’’ means ‘’in point of fact’’ according to Hawker (2002). The use thereof serves to describe something as existing in fact or reality and makes a description more factual.

Expressing a word or utterance very loudly was also found throughout the extracts. The researcher attributes the frequent use thereof to two different purposes. Firstly, saying something very loudly functions as an exclamation to express various emotions or worried expressions depending on the context in which it is used (Peters, 1995). Secondly, the climbing context often requires the speaker and other participants to communicate while they are some distance from one another. When needing to say something (for example giving climbing commands), they have to raise their voices to ensure that the recipient understands what is expected of him and is therefore able to successfully orient towards this.

''Oh'' and ''ah'' are two resources and strategies that were employed by the producer as responses to new information. These are called change-of-state tokens and are used when the producer thereof undergoes some form of change in his locally current state of orientation or awareness (Heritage, 1984). It happened a few of times in the extracts that participants saw or heard something of which they had not been aware of previously and then said ''oh'' or ''ah'' to indicate that they experienced a change in their state of awareness. The word ''oh'' is an everyday word that is used to express various emotions, depending on the context in which it is used (Peters, 1995).

The participants used the word ''but'' on four different occasions. However, it was used to achieve two different goals: firstly, as a disclaimer, which is a verbal device used to ward off any obnoxious attributions (Potter, 1987). In this case, it is used when the speaker says something that might be unacceptable and then uses the word ''but'' in an attempt to repair what has been said. Secondly, it was used as a discourse marker to signal that the description or account that is to follow is in opposition to what had been said already (Speer & Potter, 2000).

Extreme case formulations are descriptive devices that were employed in the extracts to strengthen and reinforce the participants' descriptions. Extreme case formulations can also be used to persuade someone to do something (Potter, 1996). The extreme case formulations that were employed during the extracts were ''entire'', ''coolest'', ''everybody'', and ''all''.

Two words/phrases were employed as devices to either elicit an agreement from a participant, or used to indicate that there is an agreement. The first of these is the phrase ''you know?'' which was employed by one participant to elicit an agreement from another or from all participants (Potter, 1996). The second word was ''yeah'', known as the agreement-implicative acknowledgement token, which, according to Heritage and Sefi (1992), is used by one participant to indicate that he is in agreement with what another participant has said.

In only one instance throughout all the extracts a word was used that is related to the participant, providing reason for what he has said or done. This word was ''because'' and it was employed to serve a justificatory function (Potter et al., 1987).

Hedge words / devices were used on two occasions in the form of the word ''think''. These words / devices are employed to minimize the impact of the words to follow, and also when a description or account is partial or defective in some way. It is then used as a resource that allows the producer of such a description or account space to manoeuvre within this description or account (Potter, 1996).

Overlapping of speech was also prevalent throughout the extracts, although this might be construed by some as an interruption, it has been found that participants actually view this strategy as extremely orderly and that they consequently orient to this as a normal occurrence in turn-taking (Jefferson, 1986).

The participants often referred to previous experiences that they have had, or actions that they have performed. These references to previous experiences serve a wide range of functions which include giving more weight to a statement, making constructions more believable and factual and maintaining and enhancing the speaker's footing. Footing is when a speaker uses himself or something that he has done to increase the facticity of his account. It also shows to what an extent the speaker presents factual accounts as his own or distances himself from them (Potter, 1996).

In summary, the above resources and strategies are not the only ones that were present in the extracts, but in terms of the analysis done by the researcher, they are the ones that were used and employed by the participants during their talk of rock climbing discourses. As stated in previous chapters, the inclusion of the transcribed extracts opens up the possibility to readers of the research report to make their own inferences and analysis, which hopefully will open up further avenues for future research in this field.

5.2 Limitations of the study

In terms of the limitations of this study, the researcher believes that there are a number of aspects in this regard that should be mentioned. They relate to the physical context, the recording equipment used, the number of participants and the issues of validity, generalizability and reliability.

Firstly, the physical context where the data was gathered posed a problem with regard to its remote setting. As a result, considerable logistical planning was required to ensure that everything that was needed for data collection would be available. This included the participants, climbing gear, food and refreshments, recording equipment and extras, such as surplus batteries for the recording equipment. This, in fact, had indeed caused a problematic situation as at one point the batteries ran flat and the researcher had to undertake quite an arduous journey in order to find more batteries.

Secondly, the recording equipment caused some difficulty. The researcher was unable to secure state-of-the-art, small recording equipment and had to make use of standard microphones attached to hand-held video cameras that were fitted to a backpack and carried by the participant who was climbing. The size of the microphone had a negative effect on the quality of the recordings due to the shifting of the microphone, which was caused by the climbers' actions. Consequently, some of the sound was not recorded very clearly, with the result that considerable work was required to use an audio enhancement program to gain a better quality recording.

Unfortunately, the equipment also did not allow for the effective recording of very soft sounds, such as breathing out and breathing in, etc, which could have been included in the transcription as well. If this had been possible, more resources and strategies could undoubtedly have been identified.

Thirdly, the number of participants posed a problem. Not in the sense of there having been too few, but rather too many participants. The researcher discovered that having five participants interacting at the same time, made the transcription of the recordings extremely time consuming. The researcher attempted to counter this by using a third camera to enable him to have a visual image of exactly who is saying what and at which stage. However, as mentioned above, flat batteries resulted in a problematic situation. At one point, the researcher considered attempting a more structured approach in terms of the turn taking, but he decided against such an approach based on the fact that DP relies on naturally occurring conversations and if a more structured approach were employed, the conversation would not have been natural.

The researcher does not wish to expound unnecessarily on the issues of validity, generalizability and reliability, as they have already been addressed to some extent in chapter 3. However, for those readers who are not familiar with DP and the Social Constructionist approach and who might interpret these as limitations to the study, the researcher will briefly address them to illustrate that these issues are not in fact a limitation to this study.

Reliability, validity, and generalizability are modernist concepts and inherent in this is the belief that there exists only one objective truth and that knowledge is merely a reflection of reality (Potter, 1996).

In contrast to this, DP is a post-modern approach with a social constructionist orientation, meaning that it treats reality as a social construction, and therefore more than one reality exists (Potter, 1998).

It is for this reason that modernist concepts such as reliability, validity, and generalizability hold no ground within DP, because they maintain firm boundaries between what may be seen as truth and non-truth.

5.3 Future Recommendations

The recommendations that this researcher wishes to make for future research projects in the field of DP and the sport of rock climbing relate primarily to the limitations of this study.

Future researchers should take the following into account:

- The climbing context and its remoteness
- The quality of the sound that is desired
- The number of participants – for transcription purposes
- The use of audio-visual equipment for the purpose of allowing participants to gain more insight into how their talk affects their actions while climbing

Future directions for DP research on rock climbing that the researcher would like to suggest is research on other forms of climbing, for example indoor climbing or solo climbing.

The gender make-up of the groups for future research could also be considered for comparison reasons. This could be done by studying the talk of same sex groups, for example all male, or all female, and 50/50 mixed groups.

Placing the focal point of the study on specific resources and strategies, for example the use of laughter or pauses, could also open up further avenues for studies in the field.

As stated earlier in this report, the field of DP and the sport of rock climbing have a great deal to offer researchers in either one or both fields. From the analysis of the extracts, it has become evident to the researcher that countless opportunities and future directions exist that deserve to be studied and researched in these fields. It is his sincere hope that those who read this report may gain an insight into these two fields, and that they too might become motivated to undertake further research in the future to lay the groundwork for others to follow.

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APPENDIX A

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EXPLORING ROCK CLIMBING DISCOURSES:
A DISCURSIVE PSYCHOLOGY STUDY

The purpose of this study is to explore and to determine what kinds of discursive resources and strategies are employed during rock climbing discourses.

The research will be done over the course of one weekend at The Chosspile climbing crag at the Hartebeespoort Dam, and at the Bronkies Crag in Bronkhorstspruit.

The participants will not be exposed to any form of clinical assessments or questionnaires. They will only be required to go climbing as they would on any other occasion. However for this study it will be necessary to have recordings made of the naturally occurring conversations as these unfold between the participating rock climbers.

Neither the researcher nor the participants will receive any financial benefit from the research project. A fee will however be payable to the sound/recording engineer in order to have the necessary recordings made.

All findings of the study will be made available to all parties concerned, as well as to any other interested party. This will be done to enable future studies on this topic to be made possible and more relevant.

I _____ (sound engineer's name) understand that my participation in this study is of a completely voluntary nature and that I may withdraw from the study at any given time without any negative consequences.

I am also aware and understand that Rock Climbing is an inherently dangerous sport and that the University of Pretoria, its employees, and the researcher cannot be held responsible for any injury, or loss that might occur during the study.

It has also been made clear to me that all information gathered during the study will be treated as confidential and anonymity has been ensured. Only the researcher and his immediate supervisor will have access to the information, and in the case of termination of participation by any of the participants the gathered information relating to said participant must be destroyed.

I also agree that my role in the study will be limited to that of sound recording and that I will not have any access to the gathered data once it has been properly recorded.

I understand that I will at all times have right of access to the researcher should I have any queries or questions related to the study, data , proceedings or findings.

Signed at _____ on this ____(day) of _____(month) of the year 2006.

_____ _____

Signature Name and surname in print

Sound Engineer

_____ _____

Stephan A. Potgieter Dr. L.H. Human

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All findings of the study will be made available to all parties concerned, as well as to any other interested party. This will be done to enable future studies on this topic to be made possible and more relevant.

I _____ (participant's name) understand that my participation in this study is of a completely voluntary nature and that I may withdraw from the study at any given time without any negative consequences.

I am also aware and understand that Rock Climbing is an inherently dangerous sport and that the University of Pretoria, its employees, and the researcher cannot be held responsible for any injury, or loss that might occur during the study.

It has also been made clear to me that all information gathered during the study will be treated as confidential and anonymity has been ensured. Only the researcher and his immediate supervisor will have access to the information, and in the case of my termination of participation the gathered information will be destroyed.

I understand that I will at all times have right of access to the researcher should I have any queries or questions related to the study, data , proceedings or findings.

Signed at _____ on this_____(day) of _____(month) of the year 2006.

_____ _____

Signature Name and surname in print

Participant

_____ _____

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Researcher Supervisor: Counselling Psychology

APPENDIX B

[	A single left bracket indicates the point of overlap onset.
]	A single right bracket indicates the point at which an utterance or utterance-part terminates vis-à-vis another.
=	Equal signs, one at the end of one line and one at the beginning of a next, indicate the absence of a discernable gap.
[ ]	A combined left/right bracket indicate the simultaneous onset of bracketed utterances. It is also used as a substitute for equal signs to indicate the absence of a gap between two utterances.
(0.0)	Numbers in parenthesis indicate elapsed time in silence by tenths of a second.
(.)	A dot in parenthesis indicate a pause within or between utterances, which is noticeable but too short to measure (less than a tenth of a second).
____	Underscoring indicates some form of stress, via pitch and/or amplitude. A short underscore indicates lighter stress than does a long underscore.
: :	Colons indicate prolongation of the immediate prior sound. The length of the colon row indicate the length of the prolongation.
: : and__	Combinations of stress and prolongation markers indicate intonation contours. If the underscore occurs on a letter before a colon, it 'punches up' the letter, i.e. indicates an 'up – down' contour. If the underscore occurs on a colon after a letter, it 'punches up' the colon, i.e. indicates a 'down –up' contour.

↑↓	Arrows indicate shifts into higher or lower pitch than would be indicated by just the combined stress/prolongation markers.
. , ?	Punctuation mark signify normal intonation, not grammar.
.	For downward, ending intonation
,	For continuative intonation
?	For rising, questioning intonation
!	Exclamation marks are used to indicate an animated or emphatic tone.
WORD	Upper case indicate especially loud sounds relative to the surrounding talk.
°	The degree sign is used as a 'softener'. Utterances or utterance parts bracketed by degree signs are relatively quieter than the surrounding talk.
.hhh	A dot-prefixed row of h's indicates an in-breath. Without the dot the h's indicate an out-breath.
wohhrd	A row of h's within a word indicates breathiness.
(h)	A parenthesised h indicates plosiveness. This can be associated with laughter, crying, breathiness, etc.
( )	Empty parenthesis indicate the transcriber's inability to hear what was said. The length of the parenthesis indicate the length of untrancribed talk.
(word)	Parenthesised words are especially dubious hearings or speaker-identifications.

(( ))	Double parenthesis contain transcribers' descriptions rather than, or in addition to, transcriptions.
r*ight	An asterisk following a consonant indicates a 'squeaky', crisp, hard, or dentalised vocal delivery.
ä,ë,ï	Two dots (umlaut, diaeresis) serves as a hardener, as well as a softener.
(b)	A parenthesised italicised letter indicates an incipient sound.
-	A dash indicates a cut-off
><	Right/left carets bracketing an utterance or utterance-part indicate speeding up.
<>	Left/right carets bracketing an utterance or utterance-part indicate slowing down.
£	The pound-sterling sign indicates a certain quality of voice, which conveys suppressed laughter.
(φ)	A null sign indicates that there may or may not be talk occurring in the designated space. What is being heard as possible talk may also be ambient noise.
heh heh	Voiced laughter. Can have other symbols added, such as underlinings, pitch movement etc.
sto(h)p i(h)t	An h in brackets within a word signals laughter within speech.

APPENDIX C

Abseil: The means of descending a rope safely in a controlled fashion, with the speed of descent being controlled by friction of the rope as its passes around the body or through an abseil device of some form.

Anchor: The point of attachment of ropes or slings to the rock; it can be natural (rock spike, flake, or a tree) or placed (a bolt, a peg, or something similar).

Arête: A narrow ridge of rock, ice or snow. On a smaller cliff, this is used to describe a steep, narrow rock ridge.

Balanced move: A climbing move made without a good handhold, where most of the adherence to the rock comes from footwork.

Belay: The 'system' used to stop a fall by means of a rope – includes the anchor, the belayer, and the belay devices or methods. To 'belay' is to hold the rope in such a manner to be able to arrest a fall.

Bolt: A metal expansion bolt, glued or fastened into a predrilled hole in the rock face; used for placing protection.

Bombproof: An anchor belay that is regarded as 'totally safe'.

Bucket: A handhold large enough to fully latch onto, like the handle of a bucket.

Carabiner: Metal / aluminium device which can open on one side (the gate), used to attach protection slings or ropes for general use in climbing where a device that opens is needed.

Ceiling: A large horizontal overhang.

Chicken-head: Fairly large, rounded, protruding lumps of rock which can be used as holds or protection points.

Chimneying: Climbing a fissure or 'chimney' using back- and foot-techniques against opposite walls.

Chockstone: Stone wedged in a crack or chimney.

Clean: To remove all intermediate protection placed during a lead climb; usually done by the second or last climber on a route.

Committing: A route or move where retreat would be difficult or impossible.

Crag: A smallish outcrop of rock, usually with routes of only one or two pitches.

Crimper: A small but positive sharp edge.

Crux: The most difficult part of a route.

Drag: Term used in reference to the resistance created as a rope runs through carabiners.

Dynamic or dyno: A lunge move.

Exposure: A relative situation where a climb has particularly noticeable sheerness.

Flake: A thin piece of protruding rock, suitable for use as a handhold or to drape a sling on for protection.

Gear: The general name used for climbing equipment, but generally used specifically to refer to protection equipment.

Grade: The 'difficulty rating' given to a climb; this is determined by general consensus.

Jam: Wedging hands, feet or other body parts into a crack.

Layback: A method of ascending a crack or edge where the hands grip and pull while the feet are used to provide counterforce.

Lead: To be the first on a route, placing protection to safeguard a fall.

Nose: A protruding mass of rock, varying from tiny (on a crag), to huge (on large mountains).

Off-width: A crack that is too small to accommodate the body, but too large for the hands or feet. This type of crack is usually tricky to climb.

Open book: A corner crack, which allows for bridging with the hands and feet.

Pitch: A section of rock, ice or snow, which is climbed between major belay points.

Pumped: A state of rigor in the forearm muscles, which grow engorged with blood as a result of extreme effort during a climb. It is usually associated with fatigue and an inability to grasp holds.

Runout / Leadout: The distance between two pieces of protection; often referring to a long stretch of climbing without protection.

Screamer: A fall during which the involved climber emits some type of scream or vocalisation.

Sewing-machine leg: A phenomenon that involves a climber's leg shaking involuntarily.

Slab: A large, often featureless, off-vertical inclined sheet of rock. Usually best climbed using balance techniques.

Slack: A climbing call for more rope.

Technical climbing: Complex and difficult moves, requiring skill, thought and technique.

Top-rope: To climb a route without leading it, the rope is attached from above.

Traverse: To climb sideways, without gaining any altitude.