High Altitude Climbers as Ethnomethodologists Making Sense of Cognitive Dissonance: Ethnographic Insights From an Attempt to Scale Mt. Everest

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This ethnographic study examined how a group of high altitude climbers (N = 6) drew on ethnomethodological principles (the documentary method of interpretation, reflexivity, indexicality, and membership) to interpret their experiences of cognitive dissonance during an attempt to scale Mt. Everest. Data were collected via participant observation, interviews, and a field diary. Each data source was subjected to a content mode of analysis. Results revealed how cognitive dissonance reduction is accomplished from within the interaction between a pattern of self-justification and self-inconsistencies; how the reflexive nature of cognitive dissonance is experienced; how specific features of the setting are inextricably linked to the cognitive dissonance experience; and how climbers draw upon a shared stock of knowledge in their experiences with cognitive dissonance.

Cognitive dissonance has been studied in a variety of contexts. However, there is a marked absence of research on this phenomenon within sport and physical activity in general, and on high-altitude mountaineering in particular. This is a significant omission given the potentially life-threatening environment in which high-altitude climbers place themselves. Only a small percentage of people who set out to climb Mt. Everest successfully reach the summit. Some reasons for failure include high-altitude sickness, extreme weather conditions, injury, fatigue, loss of will, and death. According to Athearn (2005), every season the ratio between the number of climbers attempting the peak of Mt. Everest and the number of climbers who die is approximately one in 30. Operating in such an environment is likely
to generate cognitive dissonance and, therefore, provides an excellent context for researchers in sport psychology wishing to study this phenomenon.

The original statement of cognitive dissonance theory by Festinger (1957) proposed that cognitions are held in dissonant, consonant, or irrelevant relations. The experience of cognitive dissonance, which results from a need for psychological consistency, follows a “non-fitting relation among cognitions” (p. 3). When cognitions are dissonant (i.e., do not fit together) individuals experience a state of psychological discomfort that motivates them to reduce the uncomfortable state in a drive-like manner. The reduction in dissonance is usually driven by the unpleasantness of a negative emotion (Harmon-Jones, 2000). Given that people differ in their ability to tolerate dissonance those with low tolerance tend to show more psychological discomfort in the presence of dissonance and display greater efforts to reduce dissonance than persons who have high tolerance. People can reduce their dissonance in different ways and can also differ in their preferred mode of dissonance reduction. For example, some people may stop thinking (i.e., passive forgetting or active forgetting), whereas others may make the relations between cognitions irrelevant (Hardyck & Kardush, 1968). Festinger suggested that dealing with dissonance occurs via the cognition least resistant to change and may manifest itself in attitude, belief, value, or behavior maintenance or change.

According to Aronson (1999), attitude-discrepant behavior and the psychological discomfort aroused by it are common daily experiences. He described cognitive dissonance theory as being about how people try to “make sense out of their environment and their behavior and, thus, try to lead lives that are (at least in their own mind) sensible and meaningful” (p. 105). For Thibodeau and Aronson (1992), the self-concept is the motivating force underlying cognitive dissonance effects. In their view, cognitive dissonance depends on “the specific cognitive elements that constitute the individual’s self-concept, as well as the expectations for behavior that are derived from these self-relevant cognitions” (p. 592). People experience cognitive dissonance when they act in ways that conflict with how they see themselves. The resolution of cognitive dissonance involves efforts to maintain or restore the threatened elements of the self-concept through justification of the discrepant behavior. Aronson suggested that most people have a favorable sense of self that they strive to uphold and want to see themselves as competent, moral, and able to predict their own behavior. When they act in ways that leave them feeling stupid, immoral or confused, they experience cognitive dissonance. Given that people’s standards for competence and morality derive from the societies and subcultures in which they live, it is possible for people to hold different standards for behavior so that certain events are regarded as dissonant for some but not for others. As Thibodeau and Aronson stated, “it is the psychological significance of a behavior, as it reflects on the self, that carries the potential to arouse dissonance” (p. 594).

In the past, studies into cognitive dissonance have been dominated by quantitative methodologies. Some of these studies have explored the content of this phenomenon and tried to explain the motivations driving the cognitive changes that result when people experience cognitive dissonance (Aronson, 1968, 1992; Cooper, 1999; Steele, 1988). Other quantitative studies have focused on the precise conditions that mediate cognitive dissonance effects (Aronson & Mills, 1959; Brehm, 1956). A number of methodological shortcomings have been noted in this research. For example, Aronson (1999) suggested there were problems proving cognitive
dissonance assumptions and that these issues stemmed from the inability of the experimental operations used to test cognitive dissonance effects. Devine, Tauer, Barron, Elliot, and Vance (1999) held a similar viewpoint and also suggested that outcome measures (i.e., attitude change or bolstering) are limited in what they can reveal about the process assumptions of cognitive dissonance theory.

Devine et al. (1999) proposed that researchers move beyond the static, one-dimensional view produced by conventional quantitative forms of inquiry. They encouraged the use of different methodological approaches to explore the process dynamics of cognitive dissonance in natural settings as opposed to contrived and manipulated environments. In this paper we use an ethnographic approach to examine the cognitive dissonance experience of a small group of climbers attempting to scale Mt. Everest. In choosing this approach, we draw on a recognized and respected research tradition within sports related studies (e.g., see Bolin & Granskog, 2003; Sands, 2002; Sparkes, Partington, & Brown, 2007; Wheaton, 2004), that has also informed a small number of studies in sport psychology (e.g., see Faulkner & Sparkes, 1999; Holt & Sparkes, 2001; Krane & Baird, 2005).

Our ethnographic study began with a number of foreshadowed problems relating to the issue of cognitive dissonance. An important framing device for addressing these issues was drawn from the field of ethnomethodology as developed by Garfinkel (1967). He was primarily concerned with the everyday social world and the ways in which social actors as members of that world accomplish commonplace activities via constructions of intersubjective meaning. According to Schwandt (1997) this approach involves the study of the everyday practical thinking and the processes whereby rules that preside over interactional settings are constructed. Schwandt argued that ethnomethodology is a family of approaches “concerned with describing and portraying how people construct their own definitions of the social situation or, more broadly with the social construction of knowledge” (p. 44). In our own study, aspects of these approaches are used primarily as a theoretical lens through which to focus on the climbers’ sense-making activities and in particular their methods for reducing cognitive dissonance. We are not seeking to conduct an ‘orthodox’ ethnomethodological study. Rather, we draw on selected ethnomethodological principles and use them as an aid for analyzing the precise ways in which social order is constructed and maintained at the microlevel of social interaction through specific accounting practices that are both observable, and reportable, for the climbers involved.

The use of ethnomethodological principles as a framing device for our ethnographic study of cognitive dissonance experiences in climbers acknowledges the complementary relationships between these two approaches. For example, both ethnomethodologists and ethnographers share a concern with the ways in which social order is actually produced by, and shared between, social actors in natural settings. The focus is predominantly on “how” social actors accomplish regular, everyday, mundane things, rather than on the “why” or the “what” of these accomplishments even though these latter issues are often addressed by ethnographers. Both, therefore, are concerned, with describing and analyzing everyday social
interaction as it is produced, experienced, and accomplished in the consciousness and actions of individuals within a society or subculture.

In contrast, many ethnomethodologists go about their work differently to ethnographers. This is evident in Garfinkel’s (1967) most frequently cited work that involved a series of “breaching experiments” he devised to uncover how precisely people bring a sense of order to their world. In these exercises, his strategy was to “produce and sustain bewilderment, consternation, and confusion; to produce the socially structured affects of anxiety, shame, guilt, and indignation; and to produce disorganized interactions” (p.38). The aim of these exercises was to highlight the ways in which, when the social rhythms of daily life (including taken-for-granted identities, sensibilities, and interactional routines) are interrupted, people are propelled actively and consciously to make sense of the situation. They seek feelings of common understanding with others, even if the underlying sense or purpose of their interaction might be ambiguous, and so are driven to account for the meaning or purpose of their “togethering” and interaction.

Ethnographers do not usually seek to produce and sustain bewilderment, consternation, and confusion in the groups they study. However, if as Garfinkel (1967), argued, we are all practical ethnomethodologists on a daily basis as we go about our routine sense-making activities, then ethnographers would be interested in how members of a specific group might act according to ethnomethodological principles (e.g., the documentary method of interpretation; reflexivity; indexicality; and membership), in making sense of the different situations they find themselves in over time. Of particular theoretical significance are those situations in which the mundane interactional routines that frame an activity are interrupted in ways that lead to feelings of confusion and conflict as this leads people to actively redefine and make sense of the situation so that order is reestablished.

Situations in sport and performance settings that provoke cognitive dissonance for social actors are of particular relevance as they have the potential to oblige participants to engage in explicit accounting practices in relation to their decisions and actions. Attempting to climb Mt. Everest is an activity that is conducive to generating inconsistent cognitions that characterize the cognitive dissonance phenomenon because climbers willingly place themselves in the stressful and demanding environment even though it threatens their “instinctive drive” for continued life, is bad for their physical health, and requires tremendous levels of physical and psychological exertion.

The purpose of our ethnographic study was to examine how the climbers drew on the ethnomethodological principles of the documentary method of interpretation, reflexivity, indexicality, and membership as they sought to reduce the cognitive dissonance produced, in some instances, by the potentially deleterious effect upon their self-concept of failing to attain the summit of Mt. Everest. We emphasize again, this is not an ethnomethodological study of cognitive dissonance but an ethnographic study of how climbers operated ethnomethodologically in making sense of this experience on the mountain (for other ethnomethodologically informed studies see, Allen Collinson & Hockey, 2007; Coates, 1999).
Method

Ethnography

Ethnography, as defined by Creswell (1998) is an approach where a researcher studies the meanings of behavior, language, and interactions of a culture sharing group to provide a description and interpretation of how, and why, that group act in the ways they do. For him, this usually involves prolonged observation of the group, “typically through participant observation in which the researcher is immersed in the day-to-day lives of the people or through one-on-one interviews with members of the group” (p. 58). In a similar fashion Atkinson, Coffey, Delamont, Lofland, and Lofland (2001) noted that, to develop a portrait and establish the cultural rules of a group, the ethnographic tradition is characterized by a commitment to the “first hand experience and exploration of a particular social or cultural setting on the basis of (though not exclusively by) participant observation (according to circumstance and the analytical purpose of the study)” (p. 4).

According to Jorgensen (1989), “the methodology of participant observation is exceptional for studying processes, relationships among people and events, the organization of people and events, continuities over time, and patterns, as well as the immediate sociocultural contexts in which human existence unfolds” (p. 12). For him, participant observation is most appropriate when certain minimal conditions are present. These include the following: The research problem is concerned with human meanings and interactions viewed from the insiders’ perspective; the phenomenon of investigation is observable within an everyday life setting; the researcher is able to gain access to an appropriate setting; the phenomenon is sufficiently limited in size and location to be studied as a case; study questions are appropriate for case study; and the research problem can be addressed by qualitative data gathered by direct observation and other means pertinent to the field setting. Each of these minimal conditions was present in our study of the cognitive dissonance experience of a group of climbers attempting to scale Mt. Everest.

Access and Participants

An average climb to the top of Mt. Everest (8,848 m) takes two months, including periods for rest and acclimatization. It requires about ten days of trekking through the Solu Khumbu region of the Himalaya Mountain Range to reach Base Camp—a protected area at 5,464 m. Once climbers have settled in camp at the base of the mountain, they set out on various acclimatization climbs, to allow their bodies properly to adjust to the ever-decreasing lack of oxygen in the air, where each time they attempt to reach a higher elevation—Camp 1 (6,000 m), Camp 2 (6,400 m), Camp 3 (7,300 m)—before returning to Base Camp. The final push to the summit requires that the climbers wait for a window of opportunity, due to the weather, and attempt to climb directly from Base Camp to the summit in a span of about three days.

During the spring (March through June) climbing season in 2005, I (Shaunna M. Burke), the primary investigator, was part of an Algonquin College Mt. Everest expedition. This provided me with the opportunity to be on the mountain for a sustained period of time and to use this site for research purposes. I am also an
experienced high-altitude mountaineer and member of the prestigious Mt. Everest summit club that is made up of those who have successfully climbed this mountain. Therefore, I am skilled in and familiar with the local practices used by the members of the climbing subculture under study. Given this background I was identifiable to other climbers as one of “them.” Furthermore, as I knew how to act in culturally appropriate ways on the mountain and given that my behavior, appearance, and speech were acceptable to other climbers, I was afforded “insider status.” This allowed me to adopt the role of participant observer and granted me access to people, sites, and situations that may not have been available to an “outsider.”

At the start of the climbing season on Mt. Everest, I recruited six climbers who agreed to participate in my study. The mean age of the participants was 50 years (range 39–61 years). Five of the participants were men and one was a woman. Four participants identified themselves as North American (Janette, Nate, Allen, Gordie), one as British (Steven), and one as Jordanian (Sayeed). All were attempting to climb Mt. Everest for the first time but only Nate made it to the summit. Each was a member of two commercially run expeditions (Expedition 1 and Expedition 2) and were amateur rather than professional climbers. They were selected for various reasons. For example, five out of the six participants belonged to Expedition 1 and their climbing schedule approximated my own as a member of the Algonquin College Mt. Everest expedition. This enabled me to adhere to their climbing schedule and climb on the mountain at the same time as these participants. Expedition 1 and Expedition 2’s Base Camps were ideally located in the same area of the Khumbu glacier beside my own Base Camp. All three Camps stood within a 100 m walk of one another. This proximity allowed for ease of access to all six participants for interview and observation purposes.

Upon the arrival of the Expedition 1 team at Base Camp, I established face-to-face contact with them, introduced myself and my background, and fully described the nature of my inquiry in terms of wishing to understand their experiences of attempting to achieve the summit of Mt. Everest. Five out of the 12 Expedition 1 members expressed interest in taking part. The same procedures were used to gain access to the participant from Expedition 2 except the interaction took place on the trail to Base Camp. The participants from Expeditions 1 and 2 who showed interest were subsequently provided again with the information required regarding their involvement and purpose of the study in order that they could make an informed decision to participate or not. They signed a consent form explaining that they had the option of withdrawing from the study at any point and that confidentiality would be respected by omitting any information that may identify them as participants in this research and by using pseudonyms in any reports of the study.

**Data Collection**

During field work, ethnographers can draw on a diverse repertoire of data collection techniques (Krane & Baird, 2005). As part of my immersion in the field during the climbing season, I was involved in multiple activities with the six participants that ranged from climbing on the mountain with them to sharing meals at various camps. I was able to spend time with the participants in both formal and informal settings, observing their behavior and interactions as well as taking part in events unique to the climbing season. This brought me close to the participants and their
experiences with cognitive dissonance. Relationships developed, based on a shared experience and an understanding of the other involved in the struggles, frustrations, and hardships of climbing the mountain. This worked to foster trust and rapport as well as enhance my ability to access deeper levels of meaning pertinent to the challenges the participants faced on a daily basis. As part of this process, data were generated in the form of in-depth interviews captured on videotape and detailed observations recorded as field notes.

**Formal Interviews.** An average of five in-depth interviews was conducted with each participant to explore their experiences of attempting to climb Mt. Everest. Interviews were undertaken throughout the duration of the expedition, and also one month after the participants returned home from the mountain. The interviews, of between 45- to 60-min duration, allowed the participants to share their experiences, including those relating to cognitive dissonance, and took place at different areas on and off the mountain. Questions in the interview guide were generated around specific topic areas to reflect both the manifestation and resolution of cognitive dissonance. Examples of topic areas developed to gain insight into how the climbers’ cognitive dissonance came about included challenges faced, regrets, frustrations, difficult decisions made, and inner conflicts experienced. Topic areas developed to explore the ways in which the climbers resolved their cognitive dissonance included coping strategies and sense-making practices.

The first interview was conducted a few days after the participants arrived at Base Camp. The second interview was held at Camp 2, a day after the climbers arrived there and a few days before they set out on their acclimatization climb to Camp 3. The third interview took place at Base Camp after the climbers returned from their acclimatization climb to Camp 3. The fourth interview took place at Base Camp one week before the summit push. The fifth was a telephone interview one month after they returned home from Nepal.

During the interviews, my own experiences as a high-altitude climber and my feelings about this particular ascent were shared only when it was considered to be appropriate and when I was invited to do so. This sharing of experiences helped me to develop a more trusting and open relationship with the participants and encouraged them to talk more freely about their own experiences. Except for the last interview, which was conducted over the telephone, all of the interviews were captured on videotape. The purpose of the videotaped interviews was to help me reconnect with the lived reality (e.g., displays of emotion, tiredness) of the participants in preparation for, and during, the data analysis process. According to Sands (2002) visual images help in recalling an event or witnessing a phenomenon. More than bringing to mind what the climbers said, the videotaped interviews served to put forward the feeling of the moment while I was working to analyze the transcribed interviews. Importantly, video recording can provide more detail of certain kinds (i.e., movement, emotion, nonverbal behavior) than does audio recording.

**Observations.** The observation sessions occurred naturally and took place at Base Camp, Camp 2, and at various elevations on the mountain while I climbed with the participants. Given that the participants were fully aware that I was making notes on any aspect of the climb I felt relevant to my study, then all the observations can be classified as overt rather than covert in nature. My observations focused *inter alia* on their cognitive dissonance experience including challenges faced, difficult
decisions taken, expectations, regrets, feelings expressed, and interpretations of different situations. After each observation session a field diary was used to record what was seen and heard. The data collected through observations complemented and informed those gained in interviews by providing discussion points regarding events as they occurred in the field. The following extract from my field diary illustrates this point.

During my rest day at Camp 2 I had lunch with the climbers from Expedition 1. As I looked at the group sitting around the dining table I noticed Sayeed sat away from the table somewhat set apart from his team mates. He sat slouched over his plate of untouched food and as the group chatted with one another about the events of the day and the upcoming climb to Camp 3, Sayeed remained quiet. He did not partake in the group discussion and when the team leader talked about the need to drink, eat, and rest in order to have the required energy to perform on the mountain the next day Sayeed’s head lowered and his gaze shifted to the ground. The prospect of continuing the climb seemed to be bothering him. His body language was reflecting the comments he made in his last interview with me about feeling he might not be able to reach his goal of becoming the first Jordanian to stand on the summit. (Field Observation, Camp 2).

According to Holt and Sparkes (2001), one of the problems for the ethnographic insider studying a culture that they are familiar with is to make the familiar strange to maintain analytical distance. Therefore, the field diary was also used critically to examine and reflect on my own experiences, including cognitive dissonance, at various stages throughout the climb, and the effects I might be having on the setting. This process helped me move back and forth between full involvement with the participants and then adopting a position of analytical distance from them, as well as also providing me with a resource to challenge my own preconceptions of events.

Analysis

The data generated in this study were subjected to a content mode of analysis (Sparkes, 2005). This entailed me sifting through the data several times to immerse myself in it and understand, interpret, and report the participants’ experiences from an empathetic position. The first step involved reading the interview transcripts and field diary with a view to identifying where, when, and under what circumstances the phenomenon of cognitive dissonance was alluded to in the participants’ experiences. This included situations in which participants became aware of falling short of their expectations of being a capable climber, of enduring a great deal of physical discomfort without the reward of reaching the summit, of spending large amounts of money to endure a great deal of physical discomfort, and placing the personal goal of climbing the mountain before their family.

Next, the identification of similarities in the data was undertaken to examine the ways in which the participants experienced cognitive dissonance and how this related to their sense of self and the situations they found themselves in. Connections across the data were explored in an attempt to identify patterns as they emerged in the participants’ accounts of their experiences on the mountain. As part of this
process, emerging themes and categories were noted. Analytic memos were also used as I made preliminary and tentative connections to various ethnomethodological processes that I identified the participants using to make sense of their cognitive dissonance experience. The four key processes used by them were as follows: the documentary method of interpretation, reflexivity, indexicality, and membership. These processes operated in an interrelated and over-lapping manner rather than as independent and discrete categories of action. Therefore, the data provided to illuminate each of these processes in action are necessarily connected and, at times, can be interchanged—as is consonant with the ethnomethodological perspective. Details of these processes will now be provided in the form of a realist telling as described by Sparkes (2002).

According to Sparkes (2002) the realist tale, when well crafted, is useful and able to make a significant contribution to our understanding by building knowledge about the contours of the social world in a compelling manner. For him, it does so by connecting theory to data in a way that “creates spaces for participant voices to be heard in a coherent text, and with specific points in mind . . . data-rich realist tales can provide compelling, detailed, and complex descriptions of a social world” (p. 55). Given that ethnographic studies are capable of producing a large mass of rich data careful thought needs to be given to what is included as supporting evidence. For example, in the Results section that follows where it is indicated that all six of the climbers used a specific strategy to deal with cognitive dissonance, space does not allow for the presentation of supporting data from all the climbers to support this claim. Rather, quotations from interviews with, or field observations of, one or two of the climbers are included as illustrative of the kinds of things that the climbers said or did. As part of this data selection process not all the climbers are represented equally in the Results section. For example, six data segments are used from Janette, three from Sayeed, three from Steven, two from Gordie, two from Allan, and one from Nate. The contextual nature of ethnographic interpretation also means that the data segments from each climber may be located differently within the results. For example, of Janette’s six data segments in the results, five appear together in the first section as these were linked together around a specific situation that confronted her. It was deemed appropriate to cluster these data segments to give a sense of the coherence that framed Janette’s perceptions of the situation as well as to provide evidence of the ethnomethodological strategy she called upon to cope with cognitive dissonance. Such decisions are informed by a desire to convey the thoughts, feelings, and experiences of the climbers in their own words and actions wherever possible, while recognizing the necessary limiting of space that is associated with a journal article of this kind.

Results

Documentary Method of Interpretation

Garfinkel (1967) believed that the way in which people make sense of their world was through a psychological process that he called the documentary method of interpretation. According to him, people treated “an actual appearance as ‘the document of,’ as ‘pointing to,’ as ‘standing on behalf of’ a presupposed underlying pattern. Not only is the underlying pattern derived from its individual documentary
evidences, but the individual documentary evidences, in their turn, are interpreted on the basis of ““what is known” about the underlying pattern” (p. 78). For example, people are always seeking to find patterns in their daily lives and actions, and in those of others. In a circular process, people are engaged in continuous interpretation of actions in terms of their contexts (X likes to show off at parties), and the contexts themselves are then understood via their relationship to those actions (this is a party, so X will probably be showing off). Further, as Coulon (1995) noted, “This is what enables us to retrospectively reinterpret some scenes and to modify our judgment about things and events” (p. 33).

The documentary method of interpretation was evident in all six of the climbers’ experiences with cognitive dissonance. Reducing cognitive dissonance was a pattern of everyday behavior that the climbers experienced when they encountered a threat to their self-concept. In this way, self-discrepant or conflicting behaviors and thoughts served as standards in the climbers’ experiences with cognitive dissonance and acted as guideposts for evaluating the meaning and significance of behavior. They also ‘pointed to’ or were the guiding phenomena underlying the pattern of self-justification that the climbers used to bring order to their world. This process is displayed in the following comment by Janette who, at the end of the climbing expedition was in conflict regarding her decision to stay on the mountain, try and wait out the weather and hopefully get a chance to attempt climbing to the summit, or to go home and be with her children:

What the heck am I doing here? I’ve had it. Mothers should not be climbing 8,000 meter peaks. It is just so selfish of me. I should go home. I should stay. I should go home. I talk to my kids on the phone and I am leaving. I talk to someone else and I am staying. (Interview 4, Base Camp).

It was evident that at this point in the expedition Janette was experiencing dissonance.

Field notes revealed that Janette did not wish to face the realization that she was falling short of her expectations of reaching the summit, but also that she did not want to feel guilty any longer about not being at home with her children: “I know that I am starting to really struggle but I don’t want to give up now. I won’t give up on my dream even though I am fed up feeling guilty about not being around for my kids.” (Field observation, Base Camp).

Notes from my field diary also revealed that striving to reach the summit of the mountain conflicted with Janette’s self-concept as a “good” mother: “Whenever I am in the mountains I think about my children and I feel bad because I am not the mother I want to be.” (Field observation, Base Camp). In this instance, her self-conflicting thoughts characterized her direction of attention and triggered a pattern of self-justification. After making the decision to call off the climb and return home to be with her children Janette took steps to reduce or eliminate the psychological discomfort she was experiencing in a way that allowed her to uphold her preformed notion of self as a responsible mother:

I would have been two weeks late and that was not an acceptable option. I told my kids that I would be home by June 1st and so I did what I had to do as a mom. If I had stayed, my kids would have hated me. What is more important, an Everest summit or your kids not trusting you? Had it been any other
responsibility I would have blown it off. (Interview 5 by telephone, Home of the participant).

Selected events provided self-confirmation regarding Janette’s decision as illustrated in the following notes from my field diary.

During the descent from Camp 2 to the base of the mountain I came across Janette at the scene of the aftermath of an avalanche that released from the East Ridge of the mountain and completely destroyed Camp 1. She stood on the crest of a knoll alongside several of her teammates looking out over the multitude of tents smashed to smithereens and hurried climbers making rescue attempts for the seriously injured. I watched her reaction and took note that she stood upright with her arms folded and pressed firmly against her chest. She shifted her weight back and forth from one foot to the other in what appeared to be a sign of distress. As I approached the group and talked with Janette I noticed a stunned and distant look in her eyes. She immediately asked me if she could borrow my satellite phone to call home and let her kids know that she was okay and not a victim of the avalanche. To that end, I lent her my phone to make the call and in returning it she commented that climbing the mountain was no longer worth the risk. (Field observation, Camp 1).

The same psychological process drawn on by Janette was used by Sayeed who, part way through the expedition, began suffering from stomach aches and experienced psychological discomfort in relation to his decision to abandon the climb. Failing to match his expectations of reaching the summit threatened his self-concept: “You know, sometimes I feel like I am a loser for not doing it.” (Interview 4, Base Camp). This self-conflicting thought propelled Sayeed to engage in a process of self-justification that entailed rescuing the threatened element of his self-concept:

But in the end I won because I was not feeling well. You can’t beat a mountain this size. You can run a marathon if you have stomach problems because you know it will only last about 2 or 3 hours, but you can’t beat something like this. I believe in God so much and think that whatever happens is meant to happen. If you really give your heart to God completely then things will happen for you. And I think I did not do that. (Interview 4, Base Camp).

Sayeed’s self-conflicting thought as a “loser” pointed to the presupposed underlying pattern that was used to rescue his threatened self-concept and make sense of a senseless encounter. He produced a sense of order surrounding his decision to abandon the climb by reconfirming his preformed notion of self as capable and triumphant. This strategy is consistent with the ethnomethodological view that, when they try to make sense of their behavior and the world around them, people search for “an identical homologous pattern underlying a vast variety of totally different realizations of meaning” (Handel, 1982, p. 57). In this way, a connection is forged between the surface document (self-conflicting thoughts) and the underlying pattern of self-justification used to interpret reality and bring order to one’s world as commensurate with the documentary method of interpretation.
Reflexivity

Ethnomethodologists propose that interpretations about society and its workings are reflexive. This concept relates to those social practices that implicitly take for granted the conditions of their production, so that in the everyday world, people rarely have to think actively about the production of their mundane activities, such as sense-making. This is done tacitly so that the activity appears automatic and natural. Once we define a situation or a person, it/they become in our subjectivity the very thing we have defined. For example, if a climber constructs as natural or sensible the decision to abandon a climb in relation to taking unnecessary risks in a dangerous environment, then those deleterious environmental conditions are subsequently constructed as constituting too high a risk due to the fact that any ‘sensible’ person could be understood to abandon the climb because of them.

For all six of the climbers in this study, the manifestation and resolution of cognitive dissonance was a reflexive process. The climbers’ experiences with cognitive dissonance simultaneously described and constituted their respective realities. To arrive at a certain interpretation or account of a self-discrepant thought or situation in a way that appeared to them as normal, natural, and real, all six of the climbers engaged in a process that involved reconstructing the past. They provided retrospective self-justifications for actions or decisions they had already taken to try and help them reduce or eliminate the threats to their self-concept. For example, five out of the six climbers made the decision to call off the climb before making the final push to the summit and subsequently experienced psychological discomfort. The interviews revealed that Steven struggled after making his decision to turn around:

I keep reliving the moment when I turned back. What if I hadn’t turned around and I could have done it? Of course, it does not help that my compatriots did make it after I turned back. I keep on reliving that decision. What if I hadn’t, could I have made it? The doubt haunts me. (Interview 5, Home of the participant).

In a similar way, all of the climbers tried reconstructing the past so that their decision no longer conflicted with their self-concept. They reconstructed their understanding of events leading to their final decision to convince themselves that calling off the climb was guided by the same judgment from the beginning. For example, Steven convinced himself, one month after he abandoned the climb, that he had made a sensible decision by giving greater emphasis to the declining condition of the icefall, his difficulty with his breathing, his concern that the Sherpas were accurate in their belief that the mountain was angry, and the issues that caused the dynamic within his team to breakdown. However, these judgments were not emphasized before making his decision while he was on the mountain. Notes from my field diary revealed that Steven tried reconstructing the past so as to convince himself that he made the right decision: “I think I made a sensible decision. In these conditions it did not make sense to me. If the conditions had been good and you go quickly and come back, and everything works out O.K., that’s fine.” (Field observation, Base Camp). This method or process for making sense of his actions...
not only existed in relation to his prior understanding of the situation but is also used to explain and constitute his perception of reality:

I was concerned with going over 8,000 meters with the way my breathing was going. I was also concerned with coming back through the icefall because to me it was sort of getting a bit too late. There were other problems as well. I had mixed feelings about how the Sherpas were feeling because in previous years they never came back so late through the icefall and the icefall doctor seemed to be a bit nervous about keeping it open so late. So, there were a lot of things to weigh up. I have retreated many times on past climbs and I always stop when I know that it is not a good idea to continue climbing. And maybe that is why I have survived so long because I think you have to have the courage to make those decisions. (Interview 5, Home of the participant).

Steven’s method for understanding his decision to call off the climb as sensible and courageous simultaneously explains and constitutes his reality. His words illuminate how cognitive dissonance is a reflexive process that involves the active explaining away of discrepancies to adhere to previously held self-assumptions.

Resolving cognitive dissonance implicitly involves the placing of faith in one’s system of self-knowledge or “stock of knowledge at hand,” and subsequently reconstructing competing systems into its beliefs with the goal of affirming, once-again, the self-assumption. Each time the climbers interpreted some act of self-discrepancy, it sharpened the authority of the discrepant act and reestablished the boundaries of the self-concept. Furthermore, because the self-concept derives from “the conventional morals and prevailing values of society” (Aronson, 1968, p. 17), and is connected specifically to the subculture to which an individual belongs, then interpreting acts as self-discrepant strengthens the norms and reestablishes the boundaries of the group. Consequently, the rationality, and authority, of the norm is not deemed a topic of inquiry but assumed as a given. It is in this sense that reflexivity highlights the self-validating circle involved for the climbers in the cognitive dissonance phenomenon.

Indexicality

The concept of indexicality relates to the idea that words and expressions are ambiguous, pointing to multiple interpretations and, therefore, require contextual information in order for people to understand their meaning. For Garfinkel (1967), natural language has no meaning independent of specific context, and the sense of an utterance is always local and contingent upon the situation and the biographies of those partaking in the conversation. Reality, for him, like language, is constructed intra the social environment in which it occurs. Denoting local, time-bound and situational aspects of actions, and making sense of the world around them is the product of people’s personal biographies and the contingent elements of any given situation in which they find themselves.

All the climbers in this study incorporated their personal backgrounds, interactions with others, and the contingent elements of the situation in their experiences with cognitive dissonance. For example, the cognitive dissonance that Gordie
experienced in relation to his decision to abandon the climb involved a process of social comparison:

Having found out later that Jerry and Martin did make it on the 30th I began to question my decision. On the one hand I am happy for them, but it also makes me more jealous to know that I could have. (Interview 5, Home of the participant).

The psychological discomfort that he experienced was intertwined with thoughts of his teammates. In Allan’s case, he attributed not reaching the summit to the poor weather reports unique to the spring 2005, Mt. Everest season:

If I felt it was a failure on my part then I would have had a tough time with it. But all you can do is analyze the data you have at the time and make the best decision. Barry, Steven, and I analyzed everything. (Interview 4, Base Camp).

The self-justification given by Allan made sense to him based on the information made available to him in the moment. All six of the climbers reduced their psychological discomfort through a process of contextual (or indexical) interpretation of a self-discrepant thought or situation. Rather than suggesting that context had a cause and effect relationship with how they made sense of their actions, the climbers constructed their reality through the setting in which it occurred and meaning was handled contextually. The climbers made sense of their behaviors in situ denoting a ‘reflexive’ relationship between “singular actions and the relevant specifications of identity, place, time, and meaning implicated by the intelligibility of those actions” (Lynch & Peyrot, 1992, p. 114).

The sense and meaning not only of indexical expressions like ‘these,’ ‘those,’ or ‘they,’ but of all expressions and actions is for the most part vague and situationally-contingent (Garfinkel & Sacks, 1970). The climbers’ experiences with cognitive dissonance in this study support this viewpoint. Without knowing the particulars of the culture and environment in which the climbers were performing, the quotes given by them are ambiguous. Take, for example, the words of Janette:

I am disappointed in myself. I expected to be so much stronger. But I feel completely drained all the time and I struggle with my breathing. I often feel like I am drowning. I have always been strong in the past so I am not used to feeling this way. (Interview 2, Camp 2).

A person who is not familiar with the activity of high altitude mountaineering may be at a loss to comprehend the meaning of this expression. Conversely, however, high altitude climbers (who know what it feels like to perform in an environment with a lack of oxygen) would have no trouble knowing exactly what Janette is talking about. In this manner, the reasoning and language used by the climbers in relation to their experiences with cognitive dissonance are indexical in the sense of being meaningfully rooted in a lived local context. Their experiences with cognitive dissonance were produced by when, where, and with whom on the mountain they thought about themselves in the framework of having experienced a self-discrepant act.
Membership

The concept of membership refers to the competencies involved in being a bona fide member of a collective, especially in relation to language. This term refers to “capacities to speak, to know, to understand, to act in ways that are sensible in that society and in the situation in which people find themselves” (Have, 2004, p. 8). According to Garfinkel (1967), people embody the social competencies of the particular social groups that they belong to as these give them a sense of the surrounding social world. In the current study, both the climbers and myself demonstrated ourselves to be members of the subculture of high altitude mountaineering, and Mt. Everest mountaineering in particular. We embodied and exhibited the social competencies required of that group, and were thus recognized and accepted by the group as members. In this regard, climbing on the mountain with the participants throughout the duration of the expedition and submitting myself in their company to the daily challenges and struggles that they were subjected to, allowed me to gain an in-depth understanding of how they used the social competencies of the Mt. Everest culture to order their sense making activities of daily life in relation to their experiences with cognitive dissonance.

All six of the climbers’ experiences with cognitive dissonance provided opportunities to interpret and produce a shared understanding of daily life. Reconstructing their understanding of self-discrepant situations so that their self-concept mirrored their preformed notion of self helped create a collective understanding and sharing of their subcultural normative framework. For example, all of the climbers appeared to have socially organized risk-taking behaviors and prolonged physical discomfort as a commonplace activity by sharing, through their talk with others, their belief that climbing the mountain was a valuable and meaningful experience. Sayeed’s comment reflects this point:

I really want to do it. I want to do it because I am here and I have been here for a long time enduring so much shit. That is why I want to do it. It must be a massive teacher for anybody who gets to the top and suffers that much to get to that point. (Interview 2, Camp 2).

In this instance, enduring tremendous levels of discomfort was manifested in Sayeed’s interpretation of the outcome as being worthwhile and advantageous. To cope with the cognition that the environment was difficult and demanding, which conflicted with the cognition that they chose to endure it, all of the climbers shared a positive outlook surrounding the effort they expended to complete the task at hand. Gordie, who was finding the climb to be a lot harder than he had anticipated, stated: “I don’t care who you are. Anyone has got to feel really satisfied with reaching the summit because of the arduousness of it all.” (Interview 3, Base Camp). Similar views were expressed by Allan who in the early stages of the climb began experiencing high levels of physical discomfort due to the effects of high altitude and the energy he expended on the mountain: “I think that anytime you put yourself in harm’s way or push yourself past your limits, you have to feel better about yourself as a person and climber.” (Interview 2, Camp 2). For both climbers, the return for their efforts was justified by experiencing positive self-directed feelings.

The ongoing interpretational processes relating to cognitive dissonance helped the climbers as members of the Mt. Everest culture to sustain their understanding
in relation to a shared stock of knowledge. Through specific forms of language and reasoning the climbers constructed and reconstructed their understanding of a situation based on the collective values of the culture of high altitude mountaineering. The conventional morals and prevailing values of the Mt. Everest culture created a negotiated reality and through its negotiations members produced a sense of an orderly and shared world (Garfinkel, 1967). The climbers used language in their interpretation of their behaviors allowing them to produce ongoing stories of specific behaviors within the context of particular situations. For example, after swearing at his expedition leader on the summit, Nate reconstructed the past to no longer feel like he acted childishly by focusing on the perceived irresponsible conduct of his leader. Interpreting the situation in this manner allowed him to reconstruct a sense that his expedition leader’s actions were outside the norm of acceptable behavior from the onset, thus producing a shared understanding of the reality of acceptable behavior.

**Discussion**

The traditional investigative approach used in cognitive dissonance studies has been limited to the confines of a laboratory using quantitative methodologies and has focused almost exclusively on the content of this experience. Adopting an ethnographic approach to explore how a group of Mt. Everest climbers operated as ethnomethodologists utilizing the principles of the documentary method of interpretation, reflexivity, indexicality, and membership to make sense of their experiences of cognitive dissonance has opened an additional window on our understanding of this phenomenon. Immersion as a participant observer in the culture under study and climbing on the mountain with the participants to chart their lived experiences of cognitive dissonance, including their sense making processes, enabled the generation of rich data about this phenomenon within a natural context. Such data have the potential to lead toward a more complex understanding of the theory of cognitive dissonance in action by revealing the underlying processes involved in the manifestation and resolution of cognitive dissonance and how this experience is internalized in the subjective consciousness of participants.

By embracing the ethnographic tradition and combining it with questions framed by an ethnomethodological perspective, this study has enabled the taken-for-granted processes underlying the cognitive dissonance experience of a small group of climbers to be made visible in a way that more typical cognitive dissonance measures are unable to accomplish. The findings may be incorporated into the original theory of cognitive dissonance as advocated by Festinger (1957), and Aronson’s (1968, 1992) development of this work through his self-consistency perspective, in ways that support and add to the theoretical processes suggested by these scholars. By focusing on how this phenomenon was actually produced by, and shared between climbers in their natural setting this study confirms Festinger’s (1957) original statement that if people hold two cognitions that are inconsistent they experience psychological discomfort and attempt to reduce it by changing one or more of the elements involved in dissonant relations so they are no longer inconsistent; adding new cognitive elements that are consonant with existing cognition to outweigh the dissonant beliefs, or; decreasing the importance of the
dissonant element(s). Our findings also support Aronson’s (1968, 1992) suggestion that the self-concept is at the core of the cognitive dissonance experience. That is, when the climbers behaved in ways that were inconsistent with their expectancies or beliefs about themselves dissonance resulted and attempts were made to reduce it through a process of self-justification.

An area of cognitive dissonance theory that has been underresearched is the identification of the precise methods that are involved in the organization of cognitive dissonance. Attempts by researchers to identify how the manifestation and resolution of cognitive dissonance is experienced at the microlevel of social interaction have been rare. By focusing on how the climbers drew on selected ethnomethodological principles to organize and make sense of their experiences with cognitive dissonance, this study provides much needed data for this under researched area. Furthermore, the findings make a significant contribution to the existing literature by revealing the dynamics of the cognitive dissonance process for the climbers with regard to the following: how cognitive dissonance involves a mutually elaborative process in which meaning is accomplished from within the interaction between a pattern of self-justification and self-inconsistencies; the ways in which the reflexive nature of cognitive dissonance is experienced; how specific features of the setting (i.e., time, space, place, etc.) are inextricably linked to the cognitive dissonance experience in a way that incorporates complex, local-specific meanings; and the ways in which people draw upon the shared stock of knowledge of the cultures to which they belong in making sense of their experiences with cognitive dissonance.

Given that this study provides a first qualitative glance at the cognitive dissonance experience from the perspective of high altitude mountaineers, the insights gained may be of practical value for sport psychologists and expedition leaders who are involved in fostering performance excellence by helping climbers learn how to prepare for, and deal with, challenges they may face on the mountain. Opening a window on where, when, and under what circumstances the climbers in this study experienced cognitive dissonance, may help sport psychologists better understand, for example, the types of situations that cause psychological distress for climbers both on and off the mountain. This study has shown that climbers are apt to experience psychological discomfort and engage in strategies to reduce or eliminate it when they make decisions that prevent them from reaching their goal. It is possible that performers in a wide variety of sporting domains experience this same psychological process when they act in ways that cause them to fall short of meeting their objectives. Furthermore, by investigating the ways in which the climbers reduced or eliminated their cognitive dissonance both on and off the mountain, this study has shed light on how this group coped with psychologically distressing situations including how they interpreted their reality when under psychological duress. The insights gained may help sport psychologists increase their knowledge, for example, of how to help climbers and other performers implement strategies for dealing with their psychological discomfort and restoring a sense of psychological consistency.

Given the emphasis within ethnography on understanding the specific, local, and the particular, the potential applications of our findings to other performers and performance settings need to be balanced against a limitation of the study in terms of its generalizability. Clearly, ethnography does not set out to enumerate frequencies
and so cannot establish statistical generalizations. In contrast, by providing sufficient
detail about the circumstances and context of the group of climbers in our study,
via what Geertz (1983) called thick description, we hope the reader is able to make
an informed judgment as to whether the findings are applicable and transferable
to other cases and situations. Geertz also argued that the strength of ethnographic
findings is in their complex specificalness and their circumstantiality as these are the
characteristics that make it possible to think “realistically and concretely about”
social scientific concepts and theories and to “work creatively and imaginatively
with them” (p. 23). Therefore, in terms of developing analytic generalizations from
our study we invite other researchers to take our findings and use them as starting
point for exploring the phenomenon of cognitive dissonance in other performance
settings in creative and imaginative ways.

Future research might investigate the cognitive dissonance phenomenon with
performers across the sporting spectrum to identify the conditions under which they
are prone to experiencing its manifestation. Research is also required on how the
resolution of cognitive dissonance affects outcomes and whether some strategies
for resolving it are better suited than others for enhancing performance. Likewise,
questions need to be addressed regarding differences between levels of climbing
experience. In particular, it would be important to explore whether elite climbers
experience cognitive dissonance in the same way and under the same circumstances
as those who are less skilled. Questions remain regarding how cognitive dissonance
is experienced by climbers from different cultures and from different social groups
in terms of, for example, age, gender, social class, and ethnicity. There is also a
need to better understand the temporal dimensions that appear to be involved in
the cognitive dissonance experience of climbers.

Given that this article only presents qualitative data from a small group of high
altitude mountaineers, the findings in relation to the cognitive dissonance experi-
ence remain tentative in nature. However, it is hoped that this study provides a
starting point for further questions and investigation into the cognitive dissonance
phenomenon utilizing an ethnographic approach and incorporating a variety of
theoretical concepts from various disciplines.

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