The Stress Is Unbearable; I Hope It Lasts: Case Studies in Reversal Theory

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ABSTRACT

The relationship between stress and performance in sport is a central topic of investigation for sport psychology and has been quantitatively explored in depth over the last 3 decades. The ability to cope effectively with stress is suggested to be one of the most important determinants in athletic performance (Patmore, 1990). Stress, however, means different things to different people. Apart from individual differences in preferred arousal levels, or the conditions and circumstances one athlete finds stressful in comparison to another athlete, psychological responses to stress contribute to athletes' perceptions about what is happening to them, and within them, during sports performance. Looking at the way athletes experience the dynamic shifts of emotions in sport may contribute to understanding the stress-performance relationship. This research uses a qualitative case-study approach to examine the competitive lives of five elite triathletes, with particular attention being paid to the perceptions the athletes have of their levels of control over their stress experiences. The concepts of reversal theory are used as one way of analysing and interpreting the data.

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DEDICATION

To El, for all my lessons.

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Thank you sincerely to Dr. Mark Andersen who has guided me personally and professionally through this thesis and my doctoral study. His commitment and dedication is a lesson in itself, but it is his incredible well of knowledge that makes it all worthwhile. My thanks also go to Chris, Archer, and Riley O'Brien for their love and patience throughout.

CHAPTER 1

INTRODUCTION

The sport environment, with its high visibility, competitive essence, confrontation, and in some cases hostility, coupled with inherent social comparisons, can provide many of the ingredients that create stress in those who participate (Kerr, 1997, King, Stanley, & Burrows, 1997;). Further, Patmore (1986) has described sport at the highest levels as an experiment in which the central factor determining the quality of the performance is the individual's ability to cope with stress.

Accurately modelling the stress-performance relationship is an important precursor to determining how anxiety and other arousal variables affect sport behaviour. Until quite recently, the psychological study of sport has generally been based on behaviour and its affect on performance. Kerr (1999) argued that sport itself represents an attempt to measure human competition, so that success and failure, winning and losing, can be quantified. Modern sport and psychology both have a history of putting human behaviour to the test, quite literally. There is still a need to understand something of the way sport is experienced by participants. Whether considering stress-performance relationships from a unidimensional, multidimensional, mathematical, behavioural, state, or trait perspective, the same premise exists: The way performers experiences stress will determine their responses to it.

Precise determination of the stress-performance relationship, however, remains elusive. Jones and Hardy (1995) noted that this inconclusivity is because of a lack of exactitude in defining and distinguishing between concepts such as arousal, anxiety, and stress and the consideration of the stress-performance relationship from a unidimensional perspective.

Stress, as a multidimensional construct, is not easy to define. Borrowing from McGrath's (1976) definition, not restricted to the sports context, stress can be described as "the result of the interaction of an individual with his or her environment, which forces upon the person a demand, a constraint, or an opportunity for behaviour" (p37). In these terms, McGrath concluded that an imbalance or mismatch between the perceived environmental demand and the perceived capability of the individual to cope could be stressful. What was unusual about McGrath's definition is that he suggested this mismatch could be stressful in either direction–overload or underload. He also suggested that the perception of stress will influence the performer's responses. That the perception of stress and responses to it vary a great deal from person to person is a central element in the reversal theory approach to stress.

Reversal theory is a model of the structure of mental life. Developed by Apter (1982; 1989), reversal theory emphasises the complexity, changeability, and inconsistency of behaviour, and proposes that individuals can, and regularly do, reverse or switch between psychological states, depending upon the meaning and motives felt by that individual. Reversal theory describes the quality of an experience in terms of the enjoyment or discomfort felt (hedonic tone), and whether the transactions with other people are seen to have a good outcome (felt transactional outcome). It is the structure of persons' experiences, which states they are in, that will dictate the way they view what is going on at any given moment, and ultimately, how they assign meaning to their experiences. In the current study, for example, a triathlete standing on the beach waiting for the siren before she races might start to pay attention to her rapid heart beat, the adrenaline coursing through her body, and the dryness in her mouth. She might notice the white caps and swell in the water and realise it is much choppier out there than last time she raced. She might catch a glimpse of the competitor to her

left whom she beat by the smallest of margins last month. She might hear her name called from the crowd; she might have expectations about her performance once that siren goes. The athlete with a dominant and salient telic (serious) state in this scenario sees it through a particular phenomenological frame, and may experience the physical symptoms as unpleasant and far removed from what she prefers to feel. She may see it as a negative and unpleasant sign of debilitating anxiety. In the paratelic (playful) state, this same set of physical symptoms could be seen as a rush of energy and readiness, a sign of the excitement the athlete feels just before the race. The phenomenological frame of perception picks up, or highlights meaning in the experience. Apter (1989) has used the analogy of a frame around a painting that picks out particular colours or textures. The painting itself does not change, but the audience's perception and interpretation of it does. The series of case studies in this research examines what more the discipline of sport psychology can learn about the way individuals experience and manage stress, using reversal theory with emotion and perception as its conceptual platform.

Several stress-performance specific studies have come out of the reversal theory literature. Research into dominance-based differences in the stress-response to sport has provided evidence to support reversal theory arguments about motivational states and the experience of stress (Bellew & Thatcher (2002); Blaydon, Lindner, & Kerr 2002; Hudson & Walker (2002). Studies have largely reported that among telic dominant individuals there is a positive linear relationship between the severity of stressors and mood disturbance, whereas with paratelic dominant individuals a curvilinear relationship exists between these two variables (Summers & Stewart, 1993; Martin et al., 1987). Research has also highlighted differences in terms of the stress responses elicited for different sports (Kerr & Svebak, 1994),

using specific psychometric measures (e.g., Tension and Effort Stress Inventory, TESI; Apter & Svebak, 1989).

Males and Kerr (1996) found differences in individuals' experiences of stress for elite slalom canoeists using the TESI stress and effort scores and a qualitative methodology. Better performances were associated with a low discrepancy between preferred and felt levels of arousal in varying levels of competition.

Males (1999) has suggested that three factors remain critical in future reversal theory research to further understanding of its application to sport:

1. That studies should take place during real, elite level competition rather than in experimentally manipulated settings, which should elicit a "truer" emotional investment from the athlete than a staged event such as Kerr and Cox's (1988) squash studies.

2. That research should focus on individuals as well as groups, and move away from group-based statistical analyses, large groups, and the search for statistical power, and focus more on individual case studies and relevant changes over time, allowing group patterns to emerge where appropriate.

3. That qualitative, rather than quantitative, methods should take precedence.

Males and Kerr (1996) and Males, Kerr, and Gerkovich (1998) in the slalom canoe studies have combined both quantitative and qualitative methods by using psychometric instruments (i.e., the TESI with time-series analysis) to measure individual changes over time, plus in-depth interviews. Nevertheless, at the time of writing, there are not any published studies using wholly qualitative methods in the area. For a full review of reversal theory research in sport, see Kerr (2000).

There are a limited number of studies specific to the stress–performance relationship that examine the way stress is experienced by an athlete. Reversal theory is an established, comprehensive theory used in psychological research and practice across sport and other areas, such as clinical, social and counselling psychology. That the theory is established in other domains also may lend credibility to, and foster progress in, the relatively young discipline of sport psychology.

Qualitative research approaches are likely to raise issues about comparability. On the one hand, it may be helpful to compare athletes' experiences in order to find what they have in common. Also, it may be helpful to use a method of research that supports the exploration of individual experiences and the recognition of different viewpoints (see Sparkes, 2002). The choice of a qualitative research method in this study was informed by the questions I wished to ask, specifically around the construction and interpretation of the stress experience. This method is grounded in an interpretative phenomenological epistemology. I was interested in the data collected as stories and descriptions of experiences, which may then relate to theory, rather than forcing responses into predetermined, standardised categories. At the outset of this research, the concerns that motivated Males (1999) to call for methodologies that gave more meaningful reflections of a person's experience seemed difficult to manage. Reversal theory is a general model in psychology rather than an approach to practice, and it is structured and rule-bound. The language and terminology in reversal theory can be restrictive and cumbersome, and at times, both at the design, interview, and analysis stages of the study, this rigidity felt confining. For the current thesis, the solution was to relinquish initial preconceptions of working with theory-led induction; rather I let the stories of each athlete

evolve naturally and then determined if reversal theory offered insights around the questions I wished to ask. This natural emergence of themes and stories, and the interactions between myself and the athletes were prominent in the case studies. To recognise and make use of these relationship data, the stories are presented to a degree as confessional tales. As Sparkes (2002) described, confessional tales are ones "that foregrounds the voice and concerns of the researcher in a way that takes us behind the scenes of the 'cleaned up' methodological discussions so often provided in realist tales". For a comprehensive discussion of confessional tales, see Sparkes.

Exploring stress experiences at a deep, personal level intimately tied to context may offer a new, helpful perspective on managing stress for elite performers. The examinations of the competitive lives of the athletes in this study brought up questions such as: What is actually stressful for the individual (determined by hedonic tone and transactional outcome)? Do athletes see themselves as having any control over their responses to stress? Are they able to manage their experiences during performance? Do they demonstrate insight into the ways that their frames of mind interact with their performances? Do they focus on cognition and affect, or on behaviour, or all three? Do they employ any useful ways of controlling their states? What is working for them and what is not working for them in the ways they perceive and handle stress?

What I expected to find was a group of triathletes who became stressed when they were out of control, and who, on the whole, did not know how to manage that stress. What I found, and what this thesis reflects, were individuals with an incredible array of techniques to manage themselves and with great insights about what they preferred to feel when they were

performing. The inconsistencies of moods and emotions were also demonstrated well, and that reversal theory does present a useful way of viewing the how, rather than the why, of the stress-performance relationship.

CHAPTER 2

REVIEW OF LITERATURE

Anxiety, Performance Research, and Theories

One of the major goals of many athletes striving for peak performance is to reach a facilitating psychological state. Situational stress factors, such as competition, may be thought of as imposing a mental load or cognitive demand on the individual that has to be met in order to produce effective performance (Fisher, 1984). Athletes' evaluations of the demands placed upon them, of their coping resources, and of the personal meanings that success or failure in their efforts to perform may have, may produce an overall experience of stress.

Stress in sport has been widely studied, and Gould, Greenleaf, and Krane (2002) noted that virtually every contemporary academic sport psychology text (e.g., Cox, 1998; Gill, 2000; Gould, Hardy & Jones, 1996; Gould & Weinberg, 1999; Williams, 2001) has devoted considerable attention to the interrelated topics of arousal, anxiety, and stress.

The research into stress and sport can be broadly categorised into three main areas: stress responses in athletes, stress management/self-regulation, and the relationship between stress and performance outcomes. The issues of terminology and conceptualisations of arousal, anxiety, and stress span all three research areas and still receive attention in the literature.

Defining Arousal, Anxiety, and Stress

Definitional disagreements have been a long-standing issue in the study of stress, anxiety, and arousal and their interrelationships with performance. The lack of precision or uniformity in defining stress within the research has been a problem, especially in generalising and interpreting findings. The terms stress, arousal, and anxiety have been used

interchangeably, although they are conceptually distinct (Gould, Greenleaf, & Krane, 2002). Researchers have typically approached arousal as a unitary construct that involves both physiological and psychological systems. Landers and Boutcher (1989) viewed arousal on a continuum and defined it as an "energizing function that is responsible for harnessing of the body's resources for intense and vigorous activity" (p. 198). Physiological arousal measures can include, among others, electrophysiological, respiratory, cardiovascular, and biochemical (Hackfort & Schwenkmezger, 1989). Hardy et al. (1996) challenged the unitary notion of arousal and proposed that arousal and activation are not the same, even though both activation and arousal involve psychological activity of the organism. Hardy and his colleagues suggested that arousal refers to the organism's immediate response to a new stimuli or input, whereas activation was seen as a more complex multidimensional state that reflects the organism's readiness to respond. Peak performance then, comes when the athlete is appropriately activated and arousal does not interfere with the needed task-specific activation level. Changes to arousal itself do not change performance. Alterations in performance come through the initiation of more or less adaptive activation patterns.

In other research, the term *competitive anxiety* is used to describe negative stress responses (Jones & Hardy, 1995). Martens (1977) viewed anxiety as feelings of nervousness and tension associated with activation or arousal of the organism, and he been divided competitive anxiety into state and trait indicators, as well as cognitive, somatic, and behavioural responses as discussed in the following section. Hanin (1989) included emotional reactions and the social environment into his conceptualisation of competitive state anxiety. Hanin described performance anxiety as an emotional reaction experienced while working on a specific task, and divided this response further into descriptions of interpersonal state anxiety

(emotional reactions experienced as a function of a person's involvement with another person/partner) and intragroup state anxiety (emotional reactions as a function of the team environment). Although Hanin's definitions are appealing, little empirical research exists to date to validate his distinctions (Gould et al. 2002). Jones and Swain (1992, 1995) and Jones (1995) have put forward definitions of anxiety that qualify the emotional reactions as either facilitative or debilitative, depending on one's cognitive appraisals. In view of other anxiety work (in particular Kerr's, 1999, application of reversal theory to sport), the proposal that states of high arousal may be helpful rather than a hindrance to some athletes seems to hold merit. The term anxiety, although having one meaning of "desire, or intense eagerness," has usually been associated with negative emotional responses in the literature, and may actually add to the terminology problems if used in this way.

Another perspective on the concept of anxiety in sport psychology comes from Nesti's (2004) work on existential psychology and sport. Existential psychology, like other psychological approaches, is concerned with investigating the current emotions experienced by people. From the existential-phenomenological viewpoint, what matters is what the person experiences and describes rather than what the researcher chooses to measure and define. This viewpoint implies that one does not experience pure or discrete categories of emotion, and that emotion cannot be understood apart from the whole being – one cannot analyse anxiety as something beyond oneself. Like Freudian psychology, existentialism emphasises that we experience anxiety as a part of the human condition, throughout our lives, and how we deal with anxiety will influence how much joy or despair we encounter. Existential phenomenology focuses more on anxiety than stress, and describes the anxiety state as involving diffuse apprehension and being somewhat vague as opposed to fear, which

existentialists considered to be a psychological, physiological, and behavioural reaction to specific danger. As far back as 1844, Kierkegaard studied the concept of dread, and suggested that anxiety was an important part of the self and vital to the growth of a person. Being able to face fear and move through it gives people the belief and courage that they can face it again, because every person will face anxiety many times. Kierkegaard described anxiety as something that is both feared and desired. Putting this philosophy into the sporting context, Ravizza (2002) stated that "if the athlete seeks to perform at an elite level, he/she must recognise that adversity and challenges are part of the process." (p. 5). Obviously there is a difference between existential angst and the sport and competitive anxiety as described and studied in the sport psychology literature, but the breadth of definitions and meanings across psychology and philosophy highlights the difficulty in clearly defining and labelling constructs as complex as stress, anxiety, and arousal. In the current thesis the participants were asked to identify stress for themselves, and then talk about how it makes them feel and how it may or may not influence their competitive performances. The following sections review how some researchers in sport psychology have approached the study of stress in sport.

Stress as an Experience in Sport

Martens (1977) noted that the term stress has been defined in three ways – as a stimulus variable, as an intervening variable, or as a response variable. The term stress in common language is used to describe environmental factors (stressors) and emotional responses. Many researchers have also used stress to describe a process (Gould, 1987; Kane & Greenleaf, 1999), which is based on McGrath's (1970) four-stage process model of stress (demand, perception of threat and coping resources, response, and behaviour).

Gould et al. (2002) attempted to alleviate the confusion in the use of arousal terminology by creating a conceptual model for integrating pertinent terminology, starting with arousal/activation and separating the concepts further into the multiple components of anxiety. The model does not use the word stress at all. Although stress may be the most ambiguous of the terms in the literature, athletes can relate readily to the term, and it is part of common sport language. Perhaps one of the research challenges in the area is finding ways to articulate clearly what is meant by stress, and also to ask athletes what it means to them.

Stress Responses

Recent research in this area has been characterised by a move towards a cognitive-based interactional model in which stress occurs as a result of cognitive appraisals that one's coping resources will be taxed or even inadequate to meet the demands imposed by a particular situation (Jones & Hardy, 1995). The consideration of cognitive appraisal of a situation obviously means that competition can no longer be considered as uniformly stressful or unpleasant for individuals or across competitive circumstances.

There has been a strong focus on the competitive stress response in the pre-competition period for athletes. Silva and Hardy (1994) suggested this focus is due to the belief that athletes can exert some control over their mental preparation during pre-competition periods, but less so during competition, and that the mental set of athletes at this stage is most likely to affect subsequent performance. Effective interventions may be most likely happen at this stage. There are logistical constraints also, for both researcher and applied sport psychologist, in accessing the athlete during competition without interference to the athlete's performance or psychological state.

Multidimensional Aspects of Anxiety

The concept of multidimensionality in competitive anxiety has two central perspectives. First, there is the notion of anxiety as both a mood state and a personality trait, which is reflected in the use of state-trait anxiety inventories (Spielberger, 1966, 1972, 1989). The state-trait theory of anxiety predicts that high trait-anxious individuals will perceive more situations as threatening and react with greater state anxiety in a greater variety of situations than low trait-anxious individuals. State anxiety is typically associated with heightened physiological arousal as a result of increased sympathetic nervous system activity and is defined as a transitory state. Trait anxiety is defined as more of a relatively stable predisposition to perceive a wide range of situations as threatening and to respond to these with state anxiety. Second, competitive state anxiety is a multidimensional concept itself, with two subcomponents of cognitive and somatic anxiety responses (Gould, Petlichkoff, & Weinberg, 1984; Jones & Hardy, 1989; Krane & Williams, 1987; Martens et al., 1990; Smith, Smoll, & Schutz, 1990). This distinction originally came from the work of Borkovec (1976) and Davidson and Schwartz (1976; see section on stress management in this chapter). Borkovec proposed that there were three response components of anxiety: cognitive, physiological, and overt behavioural. Cognitive anxiety is characterised by negative expectations, images of failure, lack of concentration, worrying, and attentional narrowing, whereas somatic anxiety refers to the perception of physiological symptoms such as shortness of breath, butterflies in the stomach, shakiness, sweating, or increased heart rate. Hackfort and Schwenkmezger (1989) classified these physiological indicators of anxiety into the areas of respiratory and cardiovascular responses (e.g., heart rate increases), biomechanical factors (e.g., generalised muscle tension), and electrophysiological changes (e.g., GSR changes). The

third indicator of state anxiety within the multidimensional construct is the behavioural response, which may manifest through facial expressions, restlessness, pacing, or changes in communication patterns (Gould & Hanson, 1988). The combination of indicators of anxiety has led to a call from some researchers for research efforts that use self-report methodology and observation in combination (Males, 1998).

An area within the competitive anxiety literature that has stimulated some research interest is the role of individual differences in the stress response. The most popular individual difference variables that have been investigated include competitive trait anxiety (Martens, 1977; Martens & Gill, 1976), gender (Andersen & Williams, 1987, Jones & Cale, 1989a; Martens et al., 1990), gender role (Wark & Wittig, 1984), skill level (Martens et al., 1990), and type of sport (Hammermeister & Burton, 1995; Krane & Williams, 1987; Martens et al., 1990).

Stress Management and Self-Regulation

Alongside the realisation that stress is a multidimensional construct, researchers have recognised that stress management techniques should be personally tailored to cater for individual differences. Among stress management techniques, self-regulation has become recognised as an important aspect of coping with stress and enhancing the likelihood of peak performance (Hardy & Nelson, 1988). Hardy (1989) has suggested at least four metacognitive skills can be identified throughout the experimental literature that are important determinants of peak performance. These skills are goal setting, imagery, anxiety and activation control, and attentional control. Jones and Hardy (1995) suggested that the relationship between goal-setting, anxiety, and performance is an important area for research in the stress management field. Hardy, Maiden, and Sherry (1986) found that athletes were less likely to accept and

adhere to the goals they had set under conditions of high competitive anxiety. Examining the relationship from another perspective, Cale and Jones (1989) reported that levels of cognitive anxiety and self-confidence were also a function of goal difficulty level. Jones, Swain, and Cale (1990) have reported that cognitive anxiety in a sample of intercollegiate middle-distance runners was predicted by goal difficulty level, and runners' perceptions of whether or not they could achieve their goals. Suinn (1993) has also found imagery to be useful in reducing anxiety, and Bandura (1977) found increasing self-confidence associated with imagery, although there is poor understanding of the precise mechanisms by which imagery exerts its influence (Hardy & Nelson, 1988). The most widely researched method of anxiety control in sport is relaxation (Jones & Hardy, 1995). Relaxation strategies could be broadly categorised into somatic (e.g., progressive muscular relaxation, breathing-based relaxation) and cognitive (e.g., meditation, autogenics, guided imagery), and techniques are best matched with the type of anxiety response experienced.

Hardy and Nelson (1988) have noted that techniques for controlling or enhancing activation are less widely researched, although it appears that increasing general activation levels, or "psyching up," enhance performance in sports where performance requires gross strength, speed, or power, but inhibits performance in skills that require fine motor control.

The fourth metacognitive skill, which Hardy (1989) referred to, was attentional control. Early research evidence suggested that cognitive anxiety can impair performance by disrupting attention (Wine, 1971, 1980). Boutcher and Rotella (1987) proposed a strategy of systematic routinisation of actions and thoughts prior to performance as a means of counteracting dispersed attention.

Burton (1995) noted that increasingly sophisticated stress models are needed to understand and work with the complex process of stress management. Although researchers such as Hardy (1989) and Martens (1990) have done a great deal to bring attention to the multiple components of anxiety, the interactions between these factors and the subtleties of preference, motivation, attribution, and interpretation about what is happening for an anxious athlete, mean that managing anxiety remains an inherently complex process. Conceptual advancements on the transactions between stress and person, which emphasise the role of cognitive appraisal and coping processes (e.g., Lazarus & Folkman, 1984), go some way to unravelling the multiplicity of factors involved in managing stress. Multimodal stress management strategies were pioneered around 30 years ago with the development in 1975 of Meichebaum's multimodal stress management techniques (stress inoculation therapy; SIT). Close on the heels of this development, Davidson and Schwartz (1976) provided theoretical support for multimodal stress management through their psychophysiological relaxation model. Using a meta-analysis of the existing literature, they were able to document that different types of anxiety problems demonstrated differential response rates to particular stress management techniques. Depending on what sort of anxiety one experienced, some techniques worked better than others. Davidson and Schwartz designed a relaxation model that categorised four distinct types of anxiety (based on the differential hemispheric mediation of cognitive and somatic variables) and specified the type of relaxation technique that was predicted to produce the most favourable results (a matching hypothesis). Although Davidson and Schwartz did not discount the possibility of cross-over effects, in which the techniques employed for one type of anxiety may also alleviate other types of anxiety, much of the subsequent research in the area (Burchfield, Stein, & Hamilton, 1985; Martens et al., 1990;

Morris, Davis, & Hutchings, 1981) has suggested that, in practice, the different types of anxiety are difficult to separate (although they do have conceptual independence), and that the situational cues that stimulate one type of anxiety will often elicit other types of anxiety as well (Burton, 1995).

Early empirical findings generally supported the anxiety-performance hypothesis that cognitive anxiety is more consistently and more strongly related to performance in both academic (e.g., Deffenbacher, 1980; Morris, Davis, & Hutchings, 1981) and sport (e.g., Burton, 1988) domains. Later research examining multidimensional anxiety and subcomponents of performance (Parfitt, Jones, & Hardy, 1995) demonstrated that high somatic anxiety is also a predictor of poor performance. The support for both somatic and cognitive hypotheses leaves room for the examination of the effect of what meaning athletes attribute to the symptoms (cognitive or somatic) they experience. If powerful somatic responses have been conditioned to a particular stimulus, for example getting butterflies in the stomach in the locker room pre-game, the response itself may be interpreted by the athlete as a reason to worry, or as evidence that one is ready to compete. Intervention to adjust the interpretation of symptoms at this stage may be enough to lessen the conditioned response and reduce its interference with performance. An adjunct to the discussion of interpretation is the possibility of the potentially deeper meaning of not performing well for the athlete. If the butterflies in the stomach pre-game are perceived as a reason to worry about anxiety getting in the way of performance, then consideration of what poor performance means for the athlete is also viable. Rejection, losing a place on the team, lowered credibility, or alienation may be underlying fears associated with the anxiety response. Although these deeper meanings have not been addressed in the sport psychology literature in relation to stress management, in

applied settings they may provide useful information around which to build interventions involving relaxation, self-talk, and goal-setting.

Research has shown that cognitive anxiety reduction enhances performance in several ways, including the creation of positive expectations of success, eliminating distracting negative thoughts and self-rumination, and preventing excessive self-analysis (Martens et al., 1990; Wine, 1980). Somatic anxiety reduction may be necessary for several reasons, including the possibility that cognitive anxiety reduction techniques will not be possible until physical symptoms (e.g., shortness of breath, shaking) are lessened. Another possibility is that somatic anxiety reduction techniques may occupy cognitive processes with productive activity, thus making worry and over-analysis less likely (Carter, Johnson, & Borkovec, 1986).

Other support for the multimodal stress management model comes from the stress, appraisal, and coping literature. Lazarus and Folkman (1984) emphasised that stress is the product of both primary and secondary cognitive appraisals. Primary appraisal is the amount of threat a person perceives in a particular situation, and secondary appraisal involves the evaluation of whether or not one has the appropriate coping resources to deal with the threat. Although Lazarus and Folkman considered primary appraisal to be largely a cognitive process, they assumed it to be significantly influenced by emotional arousal. Minimal stress accompanies either low or no perceived threat, or high perceived coping resources. Lazarus and Folkman (1984) distinguished between two types of coping: emotion-focused and problem-focused coping. In its simplest form, problem-focused coping is most likely to occur when individuals perceive that they are able to do something to combat the threat, whereas emotion-focused coping is more likely to be a result of perceptions that little can be done to remove the threat. For instance, in studying test-anxiety, Folkman and Lazarus (1985) found

that problem-focused coping was most prominent during preparation for mid-term exams, whereas the emotion-focused strategy of distancing was more prominent following the exam while waiting for grades to be posted. Again, the strategies are clearly not independent, and multiple coping styles are likely to be used simultaneously in addressing stress.

Multimodal Stress Management Models

To date, only two multimodal stress management intervention packages have been developed over the last 3 decades that have been successfully applied to sport, and that meet Burton's (1995) criteria of: (a) alleviating both cognitive and somatic anxiety, preferably in both left and right brain hemispheres; and (b) providing systematic strategies for rehearsal of coping procedures under simulated stressful conditions. These packages are Meichenbaum's (1977) stress inoculation training (SIT), and Smith's (1980) cognitive-affective stress management training, both of which have been well researched in the literature (e.g., Burton, 1995; Smith & Ascough, 1985; Smith & Rohsenow, 1987).

As might be expected with an intervention that has spanned almost 3 decades, SIT has generated a great number of published studies evaluating its general clinical effectiveness. The literature specific to sport psychology contains several empirical studies to date. Meyers and Schleser (1980) used SIT to help a male collegiate basketball player alleviate concentration problems when playing. In this single case study, multiple baseline design, the player significantly improved his performance in four targeted performance areas: points per game, field goal percentage, field goals made per game, and percentage of total team scoring.

In another study with a similar group of participants, DeWitt (1980) randomly assigned six players to either a wait-list control group or a multimodal stress management program, which adhered closely to SIT programming, although DeWitt chose to use EMG biofeedback

to teach physical relaxation. The treatment group went through an 11-session program to develop biofeedback and cognitive restructuring skills and then used imagery to rehearse coping skills under various types of simulated competitive conditions. This particular study has been criticised for poor methodology (Burton, 1995), but the study did suggest significant performance increments in the treatment group.

Hamilton and Fremouw (1985) used three intercollegiate basketball players and a multiple baseline design to measure the effectiveness of SIT on negative cognitions and free throw performance, and found a significant improvement across the board, although it could be argued that this research provided only limited support using a sample of only three people across two measures of performance.

Meyers, Schleser, and Okwumabua (1982) used SIT with two female collegiate basketball players, both experiencing concentration difficulties with different aspects of their shooting game. The study provided mixed results, with one player demonstrating significant performance increments in the targeted behaviour, but the other player experienced little change on one measure and a drop below baseline level on the second measure, in a return-to-baseline design.

In a study with a more robust methodology and a greater number of participants, Mace and Carroll (1985) employed SIT as a technique to help reduce stress experienced by participants making their first abseil descent from the roof of a 70-foot building. Participants were randomly assigned to one of four groups: SIT (including simulated practice from a lower height), self-instruction training alone, simulated practice alone, and a control group. The SIT group had lower scores than the other groups on at least two of the three stress measures employed.

Zeigler, Klinzing, and Williamson (1982) assessed the impact of SIT on the heart rates and oxygen consumption levels of male cross-country runners. Runners received SIT twice weekly for 5.5 weeks, and the results of a submaximal run at a constant workload, equivalent to 50% of each participant's maximal oxygen consumption, revealed that SIT runners demonstrated significantly better cardiorespiratory efficiency than did control participants. The same researchers, in the same study, made a comparison of SIT and Smith's cognitive-affective stress management training (SMT). Those runners in the SMT group (administered at the same level as the SIT program) also showed similar improvements, suggesting that both multimodal stress management programs had similar efficacy.

Crocker, Alderman, and Smith (1988) evaluated the effectiveness of SMT in reducing stress and enhancing performance in male and female elite junior volleyball players. Participants were divided into treatment and control groups, and the treatment group was administered a modified version of SMT over an 8-week period, approximately one treatment session per week. Although the groups did not demonstrate any significant differences on state or trait competitive anxiety, the results indicated that the SMT group reported fewer negative thoughts in response to videotaped simulations of stressful game situations, and had slightly better service reception as a measure of performance in a controlled practice simulation than did the control group. Crocker (1989) also demonstrated that these performance differences were maintained at a 6-month follow-up, although there were significant gender differences. Women maintained or improved more in modifying inner dialogue and reducing negative inner-dialogue compared to men.

The studies published have provided a degree of support for the use of multimodal stress management techniques, although it appears that more research is warranted. There are,

however, some other criticisms of multimodal stress management programs (Burton, 1995). Criticisms have included the suggestion that such strategies are probably most effective with athletes who are high in trait anxiety and may not be as effective with athletes with less anxious predispositions. Kerr's (1989) application of reversal theory to sport would also suggest that stress management techniques designed to reduce stress using relaxation may ignore the issue that low levels of arousal for individuals in the paratelic state may actually be interpreted as unpleasant (boredom), and lowering arousal would not result in a preferred state. Kerr (1989) and Hardy and Fazey (1987) both suggested that relatively high levels of arousal are necessary for peak performance, but accompanying cognitions must be positive so that high arousal states may be appraised as facilitative rather than threatening.

Orlick (1986) has suggested that in order for athletes to find the best recipe for their own peak performance, in addition to being taught stress management skills, they should be encouraged to design their own personal strategies around their competitive plans, which may include energising and relaxing. This strategy could be described as creating the optimal conditions for a *flow frame of mind* (Csikszentmihalyi, 1977; Jackson & Csikszentmihalyi, 1999), or an *optimal performance state* (Orlick, 1986). Burton (1995) has suggested that this approach in his applied practice has greatly increased the receptivity and enthusiasm of most athletes towards skill development and stress-management. Alongside the ability to manipulate muscular tension, arousal level, self-talk, competitive images, and goals according to the demand of the situation, athletes also need to have an understanding of, and pay attention to, what they prefer to feel prior to and during competition. Anxiety may have different antecedents for different people and logic would suggest that stress management

strategies should make room for adjustment of state to preferred levels as described by the athlete, rather than imposed by theory.

The Stress–Performance Relationship

Precise determination of the relationship between stress and performance has proved elusive for many years but still continues to intrigue researchers (Jones, 1995). Advancement in the area has occurred within a general, cognitive psychology framework that has slowly filtered through to sport psychology as a discipline.

Drive Theory

The origins of the discussion in sport psychology about the stress-performance relationship lie with the early models of drive theory (Hull, 1943; Spence & Spence, 1966) and the inverted-U hypothesis (Oxendine, 1970, 1984; Yerkes & Dodson, 1908). Spence and Spence suggested that performance is a product of drive and habit strength. Drive is used here to describe general arousal, and the term *habit strength* is used to refer to how learned or novel the response is. The model expressed a linear arousal-performance relationship. Despite over 20 empirical studies showing support for drive theory (Spence & Spence, 1966), extensive criticisms were levelled against its lack of sophistication. In a meta-analysis of the literature, Martens (1971, 1974) concluded that overly simplistic methodological designs accounted for at least half of the supportive results in the studies conducted on drive theory.

Inverted-U Hypothesis

The inverted-U hypothesis has become a stable conceptual principle in both the academic and sport psychology literature (Sonstroem, 1984). The major assumptions of the theory are that for every type of behaviour there exists an optimal level of arousal, usually of moderate intensity, that produces maximum performance. This optimal level changes

depending on performance complexity. The theory states that if arousal is either below or above optimal levels performance will be lower, and the predicted relationship between arousal and performance is curvilinear (inverted U). Oxendine's (1970) ideas on arousal and performance as a function of sport task characteristics were based on three assumptions: (a) a slight above average level of arousal is preferable to a normal or lower than normal level on all motor tasks; (b) a high level of arousal is essential for optimum performance in gross motor activities involving strength, speed, power, and endurance; and (c) a high level of arousal interferes with performance involving complex skills or fine movements, co-ordination, steadiness, and general concentration. Oxendine classified sport skills based on the optimum level of arousal required for maximum performance. For example, he designated archery as a level 1 skill requiring only slight or moderate arousal, and sprinting as a level 5 skill requiring high levels of arousal.

Empirical support for the inverted-U hypothesis has been fairly consistent (Duffy, 1932; Hebb, 1955; Klavora, 1977; Lowe, 1973; Martens & Landers, 1970; Sonstroem & Bernardo, 1982) although several criticisms can be levelled at Oxendine's hypothesis. Over the last 18 years a number of North American sport psychologists (Gould & Udry, 1994; Martens, 1987a; Weinberg, 1990) have followed suit with European sport psychologists (Hardy & Fazey, 1987; Jones & Hardy, 1989, 1995; Kerr, 1989) in criticising the hypothesis from a number of perspectives. For example, Hockey, Coles, and Gaillard (1986) and Neiss (1988) have argued that no clear supporting evidence has emerged from the vast amount of literature on the inverted-U hypothesis, due to methodological, statistical, interpretative, and conceptual problems. In part, this criticism is associated with the use of arousal as a generalised concept, tied to the idea of inherent neurophysiological mechanisms designed to

create fight or flight responses in humans (Sapolsky, 1998), and to which cognitive, behavioural, and physiological indices were coupled (Malmo, cited in Jones, 1995). Oxendine used the term *arousal* to identify all energised states and made no distinction between those states perceived as negative and those not (Hanin, 1997; Kerr, 1997), nor between somatic and cognitive responses (Burton, Martens, & Vealey, 1990; Gould, Petlichkoff, Simons, & Vevera, 1987). Therefore, it has limited validity in determining what the relationship actually is between negative stress and performance. Boutcher et al. (1998) did point out that the originators of the inverted-U hypothesis never expected to see strictly symmetrical inverted-U relationships between arousal and performance, rather they had created the model to illustrate that optimal arousal produced better performance than lower and higher arousal levels.

The classification of sports into levels of needed arousal is oversimplified in that it assumes one particular arousal level to be appropriate for all skills and all people within a particular sport. Oxendine classified basketball skills, for example, as requiring an intermediate level of arousal, but basketball as a game presents situations that may require high levels of arousal (rebounding) or low levels (free throw shooting). Oxendine also did not consider the cognitive requirements of different sport skills, such as required response time, dynamic versus static environments, information processing time, perceptual requirements of a task, decision-making components, and skill level of participants (Weiner, 1989).

Levi (1972) extended the inverted-U hypothesis by proposing a relationship between arousal and stress. He argued that both high and low levels of arousal are experienced as stressful, with stress increasing as arousal deviates further from the optimal level. This hypothesis results in a rather mechanistic, curvilinear relationship between stress and arousal, with performance efficiency decreasing as stress increases. This model is less sophisticated

than the more recent interactionist models of the stress-performance relationship, such as multidimensional anxiety theory (Martens et al., 1990). In the early models such as Levi's, stress was conceptualised as a phenomenon that just seemed to happen to a person under certain circumstances. In the interactionist models, the active view of the athlete is considered, and the perception of being able to meet the demands of a particular situation will determine whether stress is experienced; cognitive appraisal becomes the crucial factor (Jones, 1995; Sanders, 1983). The interactionist approach permits the possibility that very high levels of arousal can be experienced by some athletes as helpful.

Another limitation of the unidimensional models is that they provide a description for how stress may affect performance, but not for why performance is impaired at levels below or above the suggested optimal levels (Eysenck, 1982, 1984; King, Stanley, & Burrows, 1987). One suggestion from the early work of Easterbrook (1959) is the hypothesis that the individual's breadth of attention narrows as arousal increases. When arousal is moderate, perceptual selectivity increases and irrelevant cues and information are filtered while attention is directed to performance relevant cues. As arousal increases to high levels, perceptual narrowing continues, causing a tunnelling effect, which eventually causes some task-relevant cues to also be eliminated, resulting in performance deterioration.

Apter (1989) added several criticisms of the inverted-U hypothesis and the underlying conceptualisation of arousal. First, he noted that on a graph of the inverted-U, excitement and relaxation (defined as pleasant high arousal and pleasant low arousal) would share pretty much the same zone (moving towards and away from the optimal point of arousal, respectively), which implies that excitement is actually lower in arousal than relaxation, which is nonsensical. Second, in the inverted-U model, excitement would be seen as resulting from

only mild or moderate (rather than high) stimulation or arousal. Apter argued that it would surely be possible to feel excitement from intense arousal (such as sexual arousal). The model therefore ignores that it is possible to get into the top right and left hand corners of the inverted-U graph, as drive theory suggests. Third, because anxiety is represented as being associated with very high arousal, the model does not make allowances for feeling mild anxiety or mild boredom, which seems possible at least for short periods of time. Lastly, Apter argued that one does not necessarily pass through all the emotions associated with arousal in uniform order as the inverted-U model suggests in the form of a single curve. Apter's criticisms may provide food for thought in terms of understanding the experience of arousal, but, the inverted-U was intended as a model of the arousal-performance relationship rather than a model of the relationship between emotion and performance. Attempting to insert emotions such as boredom, anxiety, and excitement overestimates what the model was intended to do in the first place, which makes such criticisms less useful. It seems that Apter's introduction of emotion is intended to focus the reader on how the arousal itself is experienced, but emotion cannot act as a substitution for the term arousal in the original model.

Individual Zones of Optimal Functioning Hypothesis

In 1980, Hanin proposed the zone of optimal functioning (ZOF) state anxiety-performance model. This model has subsequently been updated and modified and is now known as the individualised zones of optimal functioning (IZOF). Hanin’s work made a departure from the idea that there is a single optimal point of arousal for each person that facilitates maximum performance. Rather, he suggested that through systematic evaluation and observation of athletes’ states anxiety and performance levels, an IZOF can be identified for

specific tasks. IZOFs are calculated by assessing an athlete's precompetitive state anxiety score on Spielberger and colleagues' (1970a, 1970b) State Anxiety Inventory (SAI). Hanin and Syrja (1995) concluded that an athlete possesses an optimal level of functioning across a range of emotional states including anxiety, and at that optimal level, sports performance will be superior. The original ZOF model and current IZOF models have proved to be practical tools for some sport psychologists (Gould, Greenleaf, & Kane, 2002), and it has received empirical support in the literature. For example, using related measurement tools Morgan, O'Connor, Ellickson, and Bradley (1988) found that optimal ZOFs existed for elite male and female distance runners. Turner and Raglin (1996) looked at a group of track and field athletes' precompetitive state anxiety and performance over three indoor competitions and found support for the ZOF. Krane (1993) has extended the ZOF model to embrace multidimensional models of anxiety, looking at ZOFs for somatic and cognitive anxiety (using the Competitive State Anxiety Inventory 2 [CSAI-2]; Martens, Burton, Vealey, Bump, & Smith, 1990) in soccer players, and found partial support for the theory. Gould, Tuffey, Hardy, and Lockbaum (1993) made similar use of the CSAI-2 in conjunction with the ZOF model with middle distance runners. The researchers found significant correlations (e.g., $r = -.30$) between performance and multidimensional anxiety theory-based ZOF, suggesting that this expansion of the ZOF model, in line with current multidimensional thinking in the field, could increase predictive validity. Against the tide of the reductionist cognitive-psychology thinking, Nesti (2004) argued strongly that the reason the current IZOF represents promise in the area of stress-performance relationships is that it has an idiographic basis, but anxiety is best understood in relation to, and alongside, a broad range of other important emotions. Nesti suggested that to pursue research, which narrowly defines the phenomena of human emotion

with psychometric measures, considerably detracts from the potential of IZOF as a vehicle for understanding the complexities of performance.

Although the IZOF model has drawn considerable attention as a practical tool, it is a description in need of a theory (Gould & Tuffey, 1996). The model is descriptive rather than explanatory, and suggestions for conceptual expansion and the development of stronger theoretical underpinnings have arisen recently, resulting in Hanin (1997) suggesting that the perceptual or interpretative processes that underlie one's experience of anxiety and the relationships between emotions, motivations, cognitions, and energy/effort be examined. Hanin has considered the influence of a variety of functional or performance-facilitating emotions and dysfunctional or performance-debilitating positive and negative emotions (such as laziness, anger, contentedness, and fury) in relation to the IZOF concept. Prapavessis and Grove (1991) supported Hanin's contention in their study of mood states in shooters. They found that when performance was poor, shooters expressed that they were experiencing levels of anger, depression, and confusion that were higher than they felt able to handle. This expanded concept has some similarities to Kerr's (1989) application of reversal theory to sport, in that it looks at the influence of emotion and motivation on the phenomena of the stress experience.

Multidimensional Anxiety Theory

As researchers began to consider the interactions of more factors in the stress-performance relationship (e.g., Eysenck, 1984; Hardy & Fazey, 1987; Hockey & Hamilton, 1983), models that described arousal effects on subcomponents of performance, rather than on global performance, emerged. Multidimensional anxiety theory (MAT; Burton, 1988; Martens et al., 1990) was one of the first and most robust of these theories. The theory predicts that

cognitive and somatic anxiety will differentially influence athletic performance. Specifically, it states that there will be a powerful negative linear relationship between cognitive anxiety and performance, and an inverted-U type relationship between somatic anxiety and performance. Research findings for the theory have been mixed. Burton (1988) found a negative linear relationship between cognitive anxiety and performance and a curvilinear relationship between somatic anxiety and performance for swimmers, thus supporting the predictions of multidimensional anxiety theory. Krane's (1990) work also partially supported the theory with her findings in female collegiate soccer players. Krane found a negative linear relationship between both cognitive and somatic anxiety and performance in this sample. Other research has been equivocal. Gould and colleagues (1987) found somatic anxiety to have a curvilinear relationship with performance on pistol shooting tasks, whereas contrary to predictions, cognitive anxiety was unrelated to performance. Rodrigo et al. (1990) also supported only the inverted-U relationship between somatic anxiety and performance in soccer.

Multidimensional anxiety theory has not been supported in some other studies (Caruso et al., 1990; Gill, 1988; Hammermeister & Burton, 1995; Maynard & Howe, 1987). Hammermeister and Burton examined the effects of precompetitive anxiety on the intraindividual performances of endurance athletes. Results did not suggest that precompetitive anxiety was debilitative to performance and did not support the MAT anxiety-performance hypothesis. The Smith and Burton study is a good example of a reductionist model that was set up to test only negative effects of anxiety without any focus on the possibility of other experiences associated with anxiety or felt arousal. Caruso et al. (1990) looked at anxiety-performance relationships in a laboratory setting involving bicycle

competition. Their results did not support either of the predicted relationships between cognitive and somatic anxiety and performance.

Few studies have attempted to test multidimensional anxiety theory by using intervention research. A series of intervention studies, however, have been conducted to test the matching hypothesis in relation to multidimensional anxiety theory (Maynard & Cotton, 1993; Maynard, Hemmings, & Warwick-Evans, 1995; Maynard, Smith, & Warwick-Evans, 1995). The matching hypothesis (Davidson & Schwartz, 1976) is a common-sense prediction that matching the type of anxiety management technique to the type of anxiety experienced will result in better outcomes. For example, a physical relaxation technique, such as progressive muscular relaxation, would be used for managing somatic anxiety, whereas a cognitive relaxation technique, such as negative thought stopping, may be used for managing cognitive anxiety. Maynard and Cotton found, however, that intervention techniques aimed at reducing one type of anxiety also reduced the other type. In two follow-up studies, Maynard and colleagues examined the effect of anxiety reduction interventions on performance, but neither study found any effect.

In considering the interaction between stress and performance, Jones (1995) drew attention to the distinction between stressors and strain. Strain is the response to an individual's negative cognitive appraisal of their adaptation to the demands of a particular environment (stressor), which may result in avoidance motivation and possible decrements in performance. Another individual's perceptions of the same environment may be positive, thus stimulating approach motivation and possible performance increments. This approach holds that stress effects are situation-specific, and that competitive anxiety, fear, fatigue, and so forth, may all have different effects on different subcomponents of sports performance

(Hockey & Hamilton, 1983; Humphreys & Revelle, 1984; Sanders, 1983). The implications of the interactionist research position are that athletes should train in conditions that specifically simulate the most troubling aspects of the competitive environment. The work of Humphreys and Revelle (1984) has also highlighted that stress effects are individual- and situation-specific. Their model, which attempts to predict the combined effects of selected personality dimensions (achievement motivation, trait anxiety, and impulsivity), situational moderators (i.e. stressors), and motivational states upon information processing on two systems: arousal and on-task effort. On-task effort is referred to as both trying hard and the allocation of resources. Humphreys and Revelle also distinguished between the effects of physiological stressors (e.g., time of day, sleep loss) on arousal, and the effects of cognitive stressors (such as incentives and importance) on on-task effort, in relation to both long-term and short-term memory skills in participants. The major drawback in this model of stress-performance is that the authors have used a general concept of arousal, again not leaving room for individual preferences for arousal intensity. The implication in this model is that stress management training programs and pre-competition preparation should be individualised.

For over a decade, multidimensional anxiety theory has been tested in the sport context, with only limited, inconsistent, or partial support. Gould et al. (2002) argued that the strength of MAT lies in its ability to distinguish between subcomponents of anxiety and the evidence that these subcomponents can differentially influence performance. Like Jones (1995), these authors suggested that greater conceptual clarity is needed, as is greater empirical support for the predictions of MAT. Nesti (2004) argued differently, stating that considerable difficulty remains in that the majority of studies investigating anxiety in sport have focused on pre-competitive anxiety (as have all the noted studies above), and only more

recently have investigators examined athletes' perceptions surrounding anxiety. Nesti argued that many of the studies to date have been largely predictable and somewhat mundane. He asserted that a basic understanding of competitive sport reveals that athletes often get more nervous closer to the event and that experienced performers, or those with high self-confidence levels, tend to be less concerned about their anxiety levels prior to competition. In this respect, the empirical data to date serve little practical use because most of them have been restricted to assessing pre-competitive anxiety intensity (and direction). Jones (1995), though heavily favouring the cognitive-based natural science model, lamented that there has been a general failure in efforts aimed at predicting performance variance from pre-competitive anxiety measures. This failure has been explained as due to inadequate performance measures used in some studies, and the need to consider performance as an ongoing process over time (Edwards & Hardy, 1996). More recently, Jones et al. (1997) investigated the experience of in-event anxiety and its relationship to performance, but as yet the findings from this area of research have been equivocal.

The Catastrophe Model

An alternative to existing theories of the relationship between stress and performance has been Hardy and Fazey's (1987) behavioural application of catastrophe theory (Thom, 1972, 1975; Zeeman, 1976). The inverted-U hypothesis and the catastrophe model are similar in that both predict an increase in arousal will facilitate performance up to an optimal level. The models diverge from there, and the catastrophe model proposes that when the athlete goes beyond the optimal point, there will be a large and dramatic (rather than gradual) decline in performance. Thom argued that few naturally occurring phenomena are symmetrically ordered

and occur in predictable fashion, but are more likely to be characterised by dramatic transformations, shifts, reversals, and discontinuities.

The most commonly applied catastrophe model to phenomena of general social situations is the cusp catastrophe model (Zeeman, 1976). The model is three dimensional and consists of two predictor variables and one dependent variable. Hardy and Fazey (1987) applied this concept to the relationship between arousal and performance in sport by suggesting that the two predictor variables affecting athletic performance (dependent variable) are cognitive state anxiety and physiological arousal. Athletic performance is predicted to be positively associated with increases in physiological arousal. The effects of physiological arousal on performance, however, are moderated by cognitive state anxiety, which is referred to as the splitting factor. The model is interactionist, so that cognitive anxiety and somatic arousal together have an influence on performance. In some conditions the relationship is continuous and unbroken, but in others drastic discontinuous changes are predicted to occur, and this change will depend on the athlete's level of optimal arousal and when that point is reached or past. Hardy (1996b) listed several important predictions coming from the model. The first is that the interaction of cognitive state anxiety and physiological arousal will determine performance more than the single effects of either of these variables. Specifically, high cognitive anxiety will enhance performance at low levels of physiological arousal but will hinder performance when physiological arousal is high. Second, unlike the predictions of MAT, the catastrophe model predicts that cognitive anxiety will not always impair performance. The model suggests that cognitive anxiety can sometimes enhance performance. Under conditions of high cognitive anxiety, best performances should be significantly better, and worst performances should be significantly worse than under conditions of low cognitive

anxiety. Finally, when a performer experiences high cognitive anxiety, the graph of performance against physiological arousal follows a different path under conditions of increasing versus decreasing physiological arousal. This pattern is known as hysteresis, and is not predicted to occur under conditions of low cognitive anxiety.

Despite being a relatively new theory in the literature, empirical support has been consistent. Edwards and Hardy (1996) supported the first prediction in netball players. They reported that a combination of high physiological arousal and high cognitive anxiety led to significantly worse performances than the combinations of high physiological arousal and low cognitive anxiety. Hardy and Parfitt (1991) and Hardy, Parfitt, and Pates (1994) also supported the second prediction looking at heart rates and again, using psychometric measures of cognitive anxiety. Hysteresis effects have also been supported in several studies (Hardy & Parfitt, 1991; Hardy et al., 1994). Hardy and colleagues have noted the difficulty of testing the model statistically, particularly because of the large number of assessments required on the same athlete over time.

Intensity and Direction of Anxiety Symptoms

Jones (1991), Jones and Swain (1992), and Swain and Jones (1992) introduced the concept of anxiety direction into the sport psychology literature. In a departure from the prevalent view of anxiety as a necessarily negative emotional experience, and drawing on a review of the test anxiety literature, they suggested the importance of considering interpretations of arousal symptoms and the direction of the symptoms (positive/facilitative or negative/debilitative), as well as the traditionally considered anxiety intensity. Studies out of the test anxiety literature have suggested previously that for some people, anxiety symptoms can be interpreted as positive and be used to help performance. Using the Achievement

Anxiety Test in 1960, Alpert and Haber demonstrated the relevance of distinguishing between debilitative and facilitative dimensions in academic performance. In sport, Mahoney and Avener (1977) reported that anxiety can be interpreted as facilitative or debilitative. They interviewed athletes who were successful or unsuccessful at making the US Olympic gymnastics team, and found that "the more successful athletes tended to 'use' their anxiety as a stimulant to better performance. The less successful athletes seemed to arouse themselves into near panic states" (p. 140). Mahoney and Avener inferred from these findings that success was correlated with positive interpretation of anxiety symptoms.

The idea of anxiety being a necessarily bad thing can be traced back to the epistemological roots of sport psychology in the natural science approach, and the use of reductionist and deterministic methods to investigate and explain anxiety as a phenomenon. Fisher (1970) noted that Freud viewed anxiety as a negative state (but also as a part of the human condition) and interest since Freud's early conceptualisations, work has been aimed largely at reducing or avoiding the experience of anxiety. The reduction of anxiety has been seen as a central motive in the development of an effective ego (in psychodynamic ego psychology), and yet in sport psychology it seems that what has been lost in translation is the distinction made between normal anxiety and neurotic anxiety. May (1977) described this distinction in saying that normal anxiety is not disproportionate to an objective threat, it involves little repression, and it can be dealt with constructively in most cases. Neurotic anxiety is different, with repression, withdrawal, inhibition, and a disproportionate reaction to threat being characteristic.

Fromm (1994) and Schneider and May (1995) offered a more complex and less negative account of anxiety and its function, from an existential-phenomenological

psychology point of view. These researchers see anxiety as a universal phenomenon that may be viewed favourably by individuals, or at least not always seen as debilitating. This view of directional anxiety in the literature has been embraced by Jones and colleagues, but much earlier, White (1959) contended that rather than avoiding anxiety and novelty, much of our behaviour is motivated by an attempt to stimulate the experience of raised tension and variety. White suggested that moving through these experiences of anxiety successfully creates feelings of self-efficacy. It seems apparent that competitive sport itself could be seen as an attempt to achieve such feelings. Whether these feelings of raised tension and variety are actually anxiety is questionable.

Jones and colleagues (1990, 1995) have looked at multidimensional competitive anxiety symptoms in their studies, and have used modified versions of the CSAI-2, which was used to determine somatic and cognitive anxiety, and self-confidence. Alongside the original CSAI-2 subscales, Jones and colleagues asked participants to rate their anxiety symptoms on nine items on each scale, using a rating scale from +3 (very positive) to -3 (very negative) in keeping with the CSAI-2 Likert scale style ratings. Scores on these subscales are calculated to give a direction score (between +27 and -27). Support was shown for differentiating between the intensity and direction dimensions of, and constructs within, competitive anxiety (Jones, 1996; Jones, Hanton & Swain, 1994; Jones & Swain, 1992; Jones, Swain, & Hardy, 1993). All of the cited studies have used psychometric measures to categorise and determine how a person perceives his or her experience of anxiety. The researchers have included considerations of the influence of mood or positive and negative affect (Jones, Hanton & Swain, 1996), skill level of the athlete (Jones & Swain, 1995), self-confidence, and competitiveness (Jones & Swain, 1992).

Jones (1995) summarised a number of the central findings on directional interpretation of anxiety in his control model of debilitative and facilitative competitive anxiety. The model proposes that anxiety is interpreted as facilitative when a person has positive expectancies of coping and achieving the goal. On the other hand, anxiety is proposed to be debilitative when expectancies with regard to coping and goal attainment are negative.

Gould, Greenleaf, and Krane (2002) suggested some limitations to the current line of research in this area. One limitation, as discussed earlier, centres around terminology, and whether facilitative anxiety would be more appropriately labelled as excitement or motivation (as in reversal theory; see Apter, 1982). The broader question for Jones and colleagues (1995) has been whether facilitative anxiety is really anxiety at all. One response to that is to ask whether the classification of types of anxiety is so important, or whether an examination of the meaning of anxiety to the individual may bear more fruit in expanding our knowledge.

Other criticisms of the directional control model include the lack of validation for the modified CSAI-2, although Burton (1998) added that initial research using the modified CSAI-2 has supported the internal consistency and construct validity of the scale. Edwards and Hardy (1996) have criticised the length of the modified CSAI-2 as excessive with the inclusion of the directional scale. Jones et al. (1993) reported that neither direction nor intensity dimensions (using the CSAI-2) have accounted for much variance in performance. Although the foray into investigating the perception and interpretation of anxiety symptoms is a welcome advance, sport psychologists are still attempting to measure experiential phenomena and reduce complex, fluid, interacting processes to numbers and snap-shot assessments. The current thesis uses a relatively new and conceptually different approach –

structural phenomenology, out of which comes reversal theory, as a way of looking at the stress experiences, performances, and motivations of competitive athletes.

Reversal Theory and Sport

Theoretical Underpinnings of Reversal Theory

Reversal theory is concerned primarily with motivation, or the needs and desires that guide a person's behaviour, and how these needs and desires change from one mood state to another. It is also concerned with experience, which is defined as the way one interprets and responds emotionally to a given situation (Frey, 1999). The theory is generalist and has been applied to a range of human activities and phenomena, including addiction (Brown, 1987, 1988, 1993; Doherty & Matthews, 1988), aggression (Kerr, 2004), religious devotion (Apter, 1985; Hyers, 1985), sexual behaviour (Apter, 1978, 1979b, 1985), humour (Apter, 1982b; Apter & Smith, 1977; Martin, 1984; Murgatroyd, 1987b), family relations (Apter, 1979b), and sport (Kerr, 1985a, 1985b, 1987a, 1987d, 1988b, 2000, 2004).

The basic ideas for reversal theory were put forward by Michael Apter and child psychiatrist K. C .P. Smith in the mid 1970s, but the first full account of the theory was set out in *The Experience of Motivation* (Apter, 1982a). Reversal theory is derived from the approach known as structural phenomenology (Apter, 1981a, 1982a). The phenomenology component of the term *structural phenomenology* implies a rejection of any approach that attempts to explain human behaviour without any reference to experience, or that sees experience as not much more than a by-product of behaviour. Reversal theory concerns action, as opposed to behaviour, with action being viewed as behaviour plus subjective meaning. Apter (1989) was explicit in his rejection of behaviourism, describing it as "methodological vandalism" (p. 2),

and asserts that reversal theory is directly opposed to it. Apter (1989) presented the example of a truant child to highlight the importance of considering subjective meaning:

> For some children it turned out that this was an escape from the threat which school represented for them, for others it was an escape from the monotony of the classroom. In one case, the meaning of the action for the child was that of flight from danger, in the other that of search for stimulation and challenge and risk. Clearly the appropriate therapy for one would be likely to be counterproductive for the other. It would be no good taking the nervous, frightened child and convincing him that there were sources of risk and challenge of which he had not previously been aware in the school context; neither would it be likely to be particularly helpful to persuade the more ebullient adventure-seeker that there was nothing to fear in the safety of the classroom, or to teach her techniques for overcoming anxiety (p. 2).

The structural component of the term structural phenomenology relates to the basic underpinning belief that human experience has structure. Experience is not so much seen as a jumble of competing variables and emotions. Rather, human experience operates in a complex, multi-layered structure. Although the term structuralism is specific to the early work of Wundt, from Apter's point of view, it is about the way in which features of experience relate to each other, how they are cohesive, or how experience itself is structured. Like Gestalt psychology, there is a focus on the content of experience, but in addition there is also a focus on the form or structure of experience. For example, human experience has a focus and a fringe (Apter, 1989). On the one hand, there is whatever we are interested in and focused on at a given moment, and on the other there is the rest of the experience, which is more peripheral. The figure-ground example of looking at a picture and seeing the figure in the foreground and paying less attention to the background landscape detail highlights this perspective well. One is able to shift one's perception and focus on the landscape and move the figure to the background. Using a sporting analogy, an athlete may be standing at the free-throw line in basketball, about to make a shot. His attention may be on the feel of the ball in his hands, and

the basketball ring, but he may also be aware of his general body position, maybe a pain in his right knee, and the mutterings of an opposition player in the background. In normal experience one focuses on something and relegates the rest to the background. It is always possible, however, that what is in the background will suddenly come into the foreground and cause a shift in perception and attention, if, for example, the talk from the opposition player gets louder and more personal. This focus on structure presents the distinction between the form and the content of experience. In reversal theory, experience is seen as structured but also as dynamic, and it is therefore described as a system. The system comprises both the way structures maintain themselves, and the way in which transformations occur from one structure to another within a balanced and homeostatic environment (in this case, by way of reversals between psychological states).

Reversal theory departs dramatically from the major trend in psychology over the last three decades in that motivation, rather than cognition, is primary in understanding human action, and emotion follows closely on the heels of motivation. Apter (1989) suggested that reversal theory has traditionally been researched using a *top-down* approach in which theory drives the search for evidence, but also reversal theory uses an *inside-out* approach, that starts with subjective experience and then interprets behaviour and physiological processes in light of it. Reversal theory is opposed to the trend in psychology of starting with external observation and measurement and then making inferences about the experiences, which may lie behind those measured observations.

Reversal Theory and the Experience of Arousal

One of the most salient aspects of motivation is the feeling of arousal (Apter, 1989). Arousal in this context is seen to be the degree to which one feels oneself to be worked up, or

emotionally intense about what one is doing. The term arousal is not used to describe levels of energy, or alertness/sleepiness, but it describes feelings of being emotional, or conversely, being calm. In criticism of Apter's description, using arousal to denote emotional intensity suggests that being deeply depressed or highly jubilant are both states of high arousal. To a degree this definition further confounds the terminological difficulties faced throughout the stress-performance literature in sport psychology. Apter explicitly uses arousal as a term depicting emotion, whereas authors such as Oxendine (1970) use the term arousal to describe levels of energy and physiological response. Comparing one model to another becomes impossible if the phenomena that the models are supposed to describe are actually different.

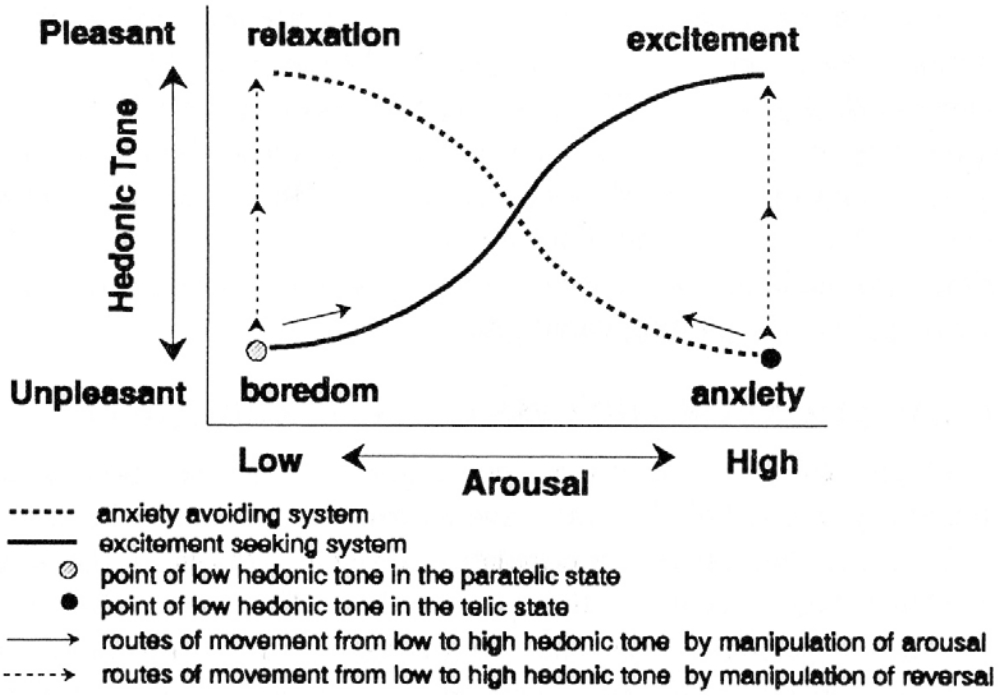
In reversal theory, arousal is seen to have two dimensions – intensity (how worked up one feels) and hedonic tone (whether the arousal is pleasant or unpleasant). These dimensions produce four combinations of arousal: anxiety (unpleasant high arousal), excitement (pleasant high arousal), relaxation (pleasant low arousal), and boredom (unpleasant low arousal). Obviously none of these dimensions account for the emotionally intense feelings of depression, as noted above. Reversal theory suggests that excitement and boredom are related by being opposite to each other, and anxiety and relaxation are also an opposite pair. In structural terms, the pairs would be binary opposites. A person is motivated to feel excitement when bored (and one feels bored when unable to feel excitement), or a person is motivated to feel relaxed when anxious (and one feels anxious when unable to feel relaxed). The theory posits that there are two contrasting ways of feeling arousal – one in which arousal becomes increasingly pleasant, and one in which arousal becomes increasingly unpleasant. Which one of the preferred levels of arousal a person feels will be determined by which metamotivational variable (telic or paratelic, see section below) is salient. The idea that there are two distinctive

states in which one experiences arousal in diametrically opposed, mutually exclusive, and exhaustive ways is fundamental to reversal theory. One can be in one state or another, and reverse between states frequently and involuntarily, but one cannot be in both states at once, like a light switch in the on or off position. The electricity may still flow but whether there is light or not will depend on which way the switch is flicked.

Figures

The models below depict the relationship between the arousal emotions.

Figure 1.



Metamotivational Pairs in Reversal Theory

Figure 2.

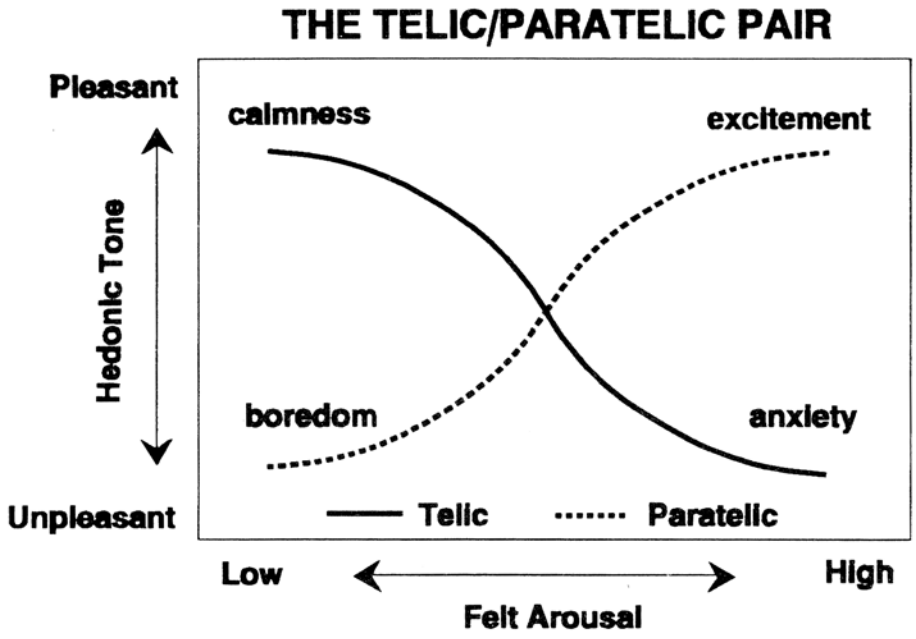


Figure 3.

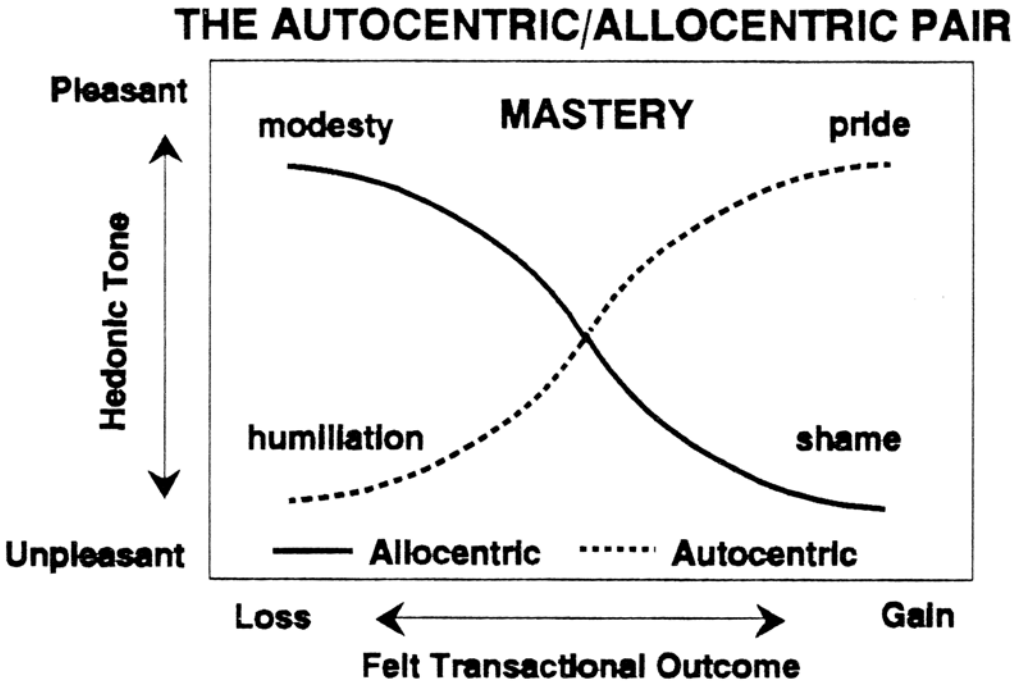


Figure 4.

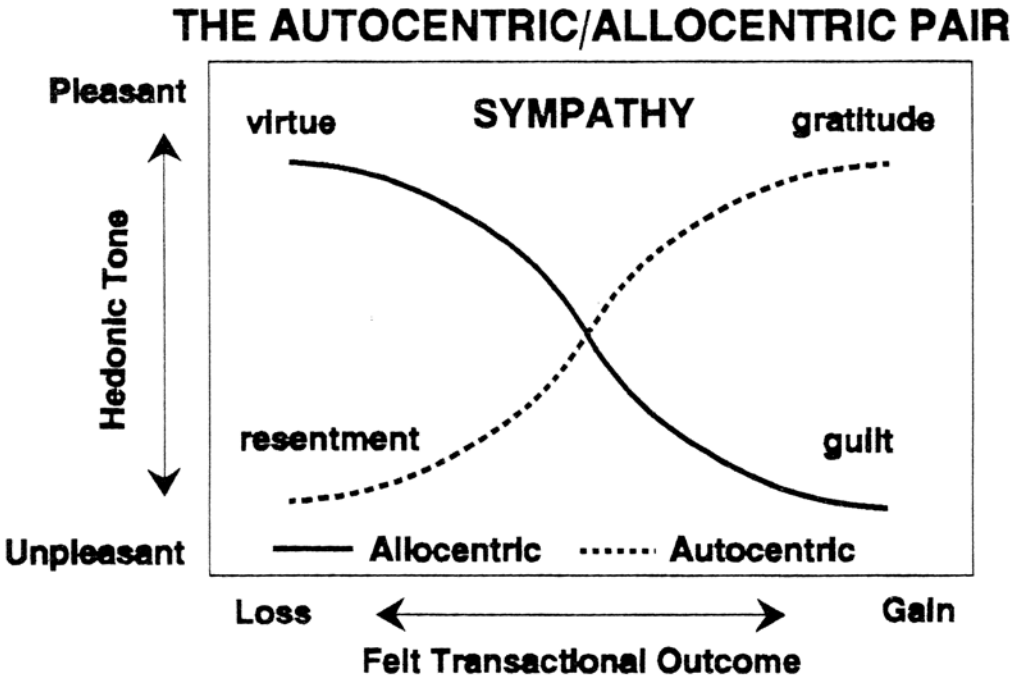

THE AUTOCENTRIC/ALLOCENTRIC PAIR
Pleasant
Hedonic Tone
Unpleasant
virtue
SYMPATHY
gratitude
resentment
guilt
Allocentric
Autocentric
Loss
Gain
Felt Transactional Outcome

Figure 5.

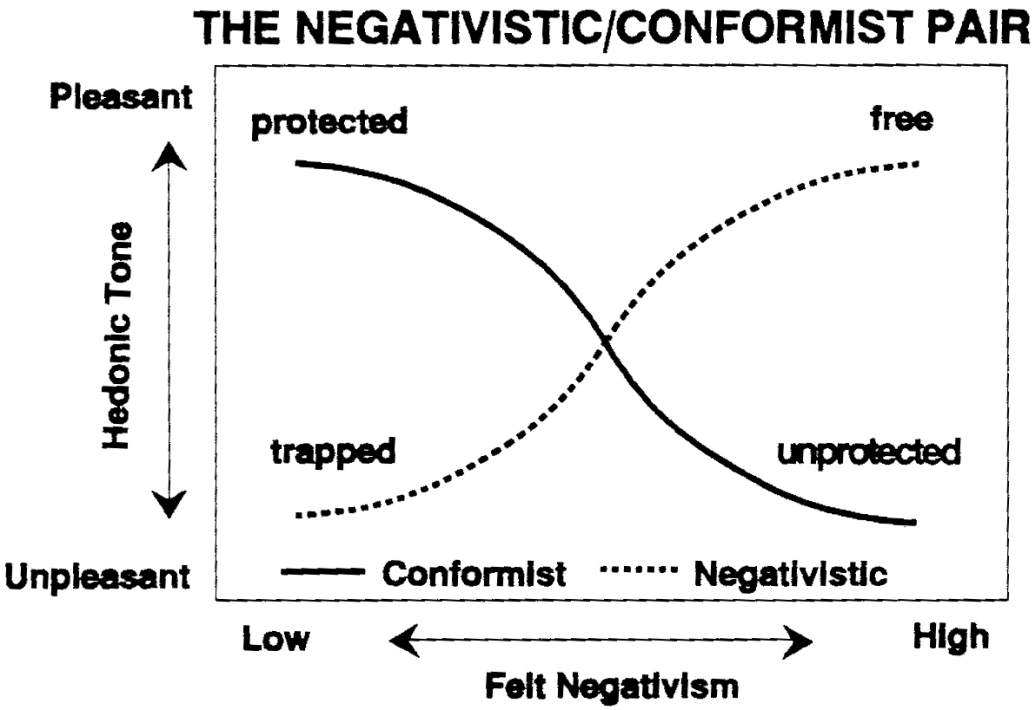

THE NEGATIVISTIC/CONFORMIST PAIR
Pleasant
Hedonic Tone
Unpleasant
protected
free
trapped
unprotected
Conformist
Negativistic
Low
High
Felt Negativism

Figure Captions

Figure 1. An integrated feedback system involving two metamotivational variables (adapted from Apter, 1982, Figure 4.1, p. 84).

Figure 2. The relationship between felt arousal and hedonic tone for the telic and paratelic states.

Figure 3. The relationship between hedonic tone and felt transactional outcome for autocentric and allocentric states when they are experienced in combination with the mastery state.

Figure 4. The relationship between hedonic tone and felt transactional outcome for autocentric and allocentric states when they are experienced in combination with the sympathy state.

Figure 5. The relationship between felt negativism and hedonic tone for the conformist and negativistic states.

These figures are modified and simplified from the originals (see Kerr, J.H; Murgatroyd, S. & Apter, M.J.(1993) *Advances in Reversal Theory*. Amsterdam: Swets & Zeitlinger.

In line with Kierkegaard (1844) and Nesti (2004), Apter argued that some people do things deliberately to confront themselves with real danger in order to raise their arousal levels as high as possible, probably experiencing anxiety in the process, but then master the danger to gain control of the situation. Eysenck's work on the extroversion and introversion personality constructs would also offer an explanation for people seeking out behaviour that confronts them with danger. He suggested that extroverts have low levels of cortical arousal and seek to raise their arousal levels to more optimal levels. This arousal seeking seems readily observable in some sports, particularly sports that are extreme or dangerous (boxing, karate, superbike riding, skydiving, base-jumping, aerial skiing). The ability to gain control switches the athlete between the two curves of the model, thus the degree to which an individual felt anxiety before control will now be the degree of excitement they feel.

Apter (1989) emphasised that it is not necessarily possible to see from the outside what mode a person is operating in because behaviour may be ambiguous or misleading; the subjective meaning of the experience to the individual will always be central. He explained that far from being reductionist, the use of emotional labels to describe experience is intended to be seen as a gateway, or labels to boxes in which reside other words that describe different degrees of intensity of emotions, duration of emotions, causation, context, and so forth. For example, in the excitement "box" would reside other experiences such as passion, thrill, fascination, exhilaration, elation, ecstasy, or euphoria. In the anxiety "box" one might find experienced such as apprehension, fear, terror, panic, or worry.

Metamotivation

Metamotivation describes the way in which a person's motives can fluctuate and change in the course of daily life. A person's salient state is described as metamotivational, in the sense that it sets what the person wants or desires for the moment. People can be motivated to seek out fun and excitement and feel bored if they are unable to do so, or they can be motivated to seek out opportunities to meet their goals and feel anxious about their performance and aware of their progress to that end.

As noted earlier, reversal theory suggests that metamotivational states occur in bistable pairs of opposites. When one state is active, the opposite state is inactive. The theory suggests that there are four pairs of opposite metamotivational states. This understanding means that at any one time an individual is experiencing a total of four states, one from each pair, even though it is suggested that one or two will be most salient at a time. Frey (1999) suggested that the four active metamotivational states will determine the person's *temporary personality*: what the person wants, how he behaves and thinks, and what she is likely to experience emotionally. The metamotivational states are divided into somatic states (primarily concerned with how one experiences one's own bodily arousal, referred to as felt arousal), and transactional states (primarily concerned with one's interactions with other people or objects, referred to as felt transactional outcome).

Somatic States: Telic and Paratelic.

Apter conceptualised the telic and paratelic states first (1982), and this pair has received the most attention in the literature. A person in the telic state is primarily goal-oriented, and any action or activity is a means to an end. Although telic people may be

active and energised towards the achievement of a goal, they do not necessarily wish to be worked up, and most likely any source of unnecessary arousal will be perceived negatively and seen as, at least, distraction. In the paratelic state, people are much more interested in the means than the ends, or in the activity rather than the outcome or end result. People in the paratelic state might be described as playful, spontaneous; they may revel in sensations of bodily arousal and enjoy unpredictable situations. In this state, Apter (1993) suggested that a person may feel somewhat protected or encapsulated - unaware of, or unconcerned with, any significant negative outcomes.

One of the differences between the paratelic and telic modes is the tendency of people in the telic mode to connect with real and important life problems, whereas in the paratelic mode people seem cut off from these same problems. High arousal that would be felt as unpleasant emotions in the telic mode can be enjoyed in the paratelic mode. Such emotions are known as parapathic emotions (Apter, 1989). If a person is removed or detached enough from the outcomes of his or her actions, even anger or anxiety can be enjoyed.

Somatic States: Conformist and Negativistic.

Whereas the telic and paratelic pair have to do with emphasising ends versus means, the conformist and negativistic pair have to do with how one temporarily regards restrictions to one's behaviour, such as rules, norms, traditions, or others' expectations. A person in the conformist state wants to maintain the status quo, adhere closely to rules and respect others' wishes. In contrast, a person in the negativistic state is inclined to rock the boat; he or she wishes to be free of restrictions and constraints, to ignore or mock rules, and to defy expectations. People in the negativistic state tend to behave as if they

are exempt from personal restrictions (Apter, 1993) and may make deliberate efforts to flaunt the rules or be rebellious. There are two ways of experiencing the perception that one is in some way violating the rules (felt negativism). The conformist person would be likely to find it an unpleasant experience (low hedonic tone) and try to avoid it, whereas the negativistic person may be more inclined to enjoy it, or feel excited by it. The conformist state results in the four emotions of relaxation, anxiety, excitement, and boredom, and the negativistic state results in the four emotions of placidity, anger, provocativeness, and sullenness.

When both pairs of somatic states are blended, they produce metamotivation. Frey (1999) gave the example of being in the telic-conformist state and nervously demonstrating a skill before judges, and conversely being in the telic-negativistic state and suddenly feeling a rush of anger after finding oneself in a threatening competitive situation. In the paratelic-conformist state one might indulge in an sporting activity just for leisure, but stick to the rules and etiquette anyway, and the paratelic-negativistic state might be expressed as being mischievous or cheeky at a serious moment in sport in order to raise a laugh.

Transactional States: Mastery and Sympathy.

The person in the mastery state views an interaction as a kind of power struggle, and it often involves objectifying others – seeing the other as an object to be overcome, beaten, dominated, or better than. Apter (1993) suggested that those in the mastery state may be inclined to manipulate or attempt to control another in order to gain advantage. The mastery state reflects a strong desire to win at all costs and enjoyment is associated

with being successful in competing against another person and proving oneself superior by beating them.

Conversely, the person in the sympathy state is concerned with the way others see them and perceives interaction as an opportunity to be generous and considerate or to gain intimacy with another. Rather than feeling satisfaction in beating another person, the person in the sympathy state is more likely to seek out the camaraderie and friendship between them and others.

Transactional States: Autic and Alloic States

The person in the autic state is concerned primarily with his or her own outcomes in an interaction, otherwise described as motivationally self-centred. Gain will be felt as pride in having done well, whereas loss will be experienced as some kind of humiliation or embarrassment. A person in the alloic state is concerned more with the other's outcome, or is motivationally other-centred, so a gain at the expense of another will be felt as some degree of shame, and loss will be felt as modesty.

As with the somatic states, reversal theory suggests that one is always experiencing one state from each pair of transactional states, with reversals between these pairs occurring more or less frequently. An example to highlight the frequency with which reversals occur would be the heavyweight champion Muhammad Ali (Ali & Durham, 1975), who described a switch between the autic-mastery state, to the alloic-sympathy state in his description of his fight against Henry Cooper in London in 1965:

> The extra minute gave me new vigour, and I came out shooting jabs and hard, straight, slashing rights across to the head. The cut above Cooper's eye opened again, and in the clinches I could see the blood pumping out, gushing out. It was a

> warm night and the odour of blood was everywhere. It splattered on my chest and trunks, across his face. I looked around for the ref to stop it… No human being should take that kind of beating just to please a bloodthirsty crowd (p. 122).

The metamotivational state combinations for the transactional pairs are: autic-mastery (resulting in emotions of either humiliation or pride), autic-sympathy (resulting in resentment or gratitude), alloic-mastery (resulting in modesty or shame), and alloic-sympathy (resulting in either virtue or guilt).

Reversals

As discussed, a reversal involves moving from one curve to another, or in some cases to a different set of pairs as salient, for example, from anxiety to anger when a conformist to negativistic reversal occurs. Reversals are most dramatic and easily observed when they occur at the end of a particular dimension, for example, when one reverses from extreme anxiety to extreme excitement. Svebak and Murgatroyd (1985) suggested that despite reversal theory being primarily concerned with differences within an individual over time, it also allows for comparisons between people. Metamotivational dominance implies that people have an inherent bias for one or the other state in a given pair of states and this preference may influence their choices of activity. Reversals into the individual's preferred state will occur more easily and more frequently, and it is likely to take longer to satiate in the dominant state.

Apter (1989) proposed three mechanisms by which a reversal can occur, given they are considered involuntary (although environments can be manipulated to induce a reversal; Kerr, 2001). A common cause of reversal is contingency, where something occurs in the environment that instigates a reversal between states. Frey (1999) provided

an example of contingency-induced reversal when he described the antics of Michael Jordan playing NBA basketball, and playfully attempting to hold the hand of the player who was trying to guard him. The player, most likely in the telic mode, initially rebuffed Jordan, but then suddenly began to laugh, indicating a reversal into the paratelic state. Another example would be Malcolm Bradbury, Olympic gold medallist in the short course speed skiing, 2002, who switched from serious and focused telic mode into paratelic excitement at the unexpected prospect of winning as all of his competitors fell in the race. A second mechanism of reversals, which Apter describes, is frustration. When a person is unable to achieve satisfaction in a particular state over a sustained period, he or she may switch into the opposite state. Frustration is sometimes evident when a player switches from the conformist to negativistic state in football after a series of forced errors or poor calls from the officials, and subsequently engages in foul play. The final mechanism for reversals is satiation. This mechanism of reversal can occur in the absence of any external stimulation or internal feeling of frustration, just as a matter of course as time elapses in one state. This third condition in particular detracts from the theoretical weight of reversal theory as a useful way of predicting or modelling a relationship between stress and performance, because it basically proposes that a reversal can occur at any time, with the only prompt or initiating condition being that the state has reached its (unpredictable) satiation point.

Protective Frames

In the arousal-avoiding states, individuals are clearly aware of the world around them and the possibility of threats or danger. If there is a strong focus on the increase of such threat or danger, anxiety may result, but, if the danger is distant or easily managed, the individual may feel relaxed. In the arousal-seeking states however, a person is less associated with, and focused on, the realities around them in terms of potential dangers or threats. In reversal theory terms, this distancing is described as putting a protective frame around the experience (Apter, 1992; Kerr, 1993), so that dangers and threats can be seen as not dangerous or threatening at all. The protective frame does not remove threats, but it filters out the unpleasant quality of the threat and leaves the quality of high arousal, which can be perceived as a source of potential enjoyment. Protective frames come in three distinguishable types: confidence frames (confidence that danger can be overcome or managed and that there is sufficient protection available to you), safety-zone frames (the feeling that there is no real danger in this space, with these people, or at this time), and detachment frames (any danger cannot affect you personally as you are just an observer).

The Experience of Stress

Apter (1989) conceptualised two types of stress: arousal-seeking / arousal avoiding stress (the stress that comes with unpleasant feelings of anxiety or boredom for example), and the stress that comes with work and effort to reduce these unpleasant feelings. The first type of stress arises as a result of tension, which is the discrepancy between preferred and actual levels of a variable (e.g., felt arousal). This type is known as tension-stress, and could be induced by demands that are perceived as too high (telic

tension-stress, leading to anxiety), or too low (paratelic tension-stress, leading to boredom). Other forms of tension-stress are possible and would result in mismatches between the preferred and actual levels of other variables such as felt negativism, felt toughness, or felt transactional outcome. In each case, tension stress has its own affective quality (e.g., worry, fear, anxiety).

Effort extended by the individual to compensate for the unpleasant feelings associated with tension-stress, is effort-stress. For the individual experiencing telic tension-stress, effort-stress may take the form of making efforts to cope with, or minimise stressors, whereas for the individual experiencing paratelic-tension stress, effort-stress may involve setting up attempts to create a challenge (Apter & Svebak, 1989) or raise the stakes. In this respect, the performer may actually enjoy the effort-stress. Effort-stress can be extended to reduce the possibility of tension-stress before it ever arises. Thus, it can be seen as a preventative action. Effort-stress is felt as either desperate coping (in the extreme), or joyous striving, and the experience will depend primarily on the telic-paratelic pair rather than other salient states. The interaction between the two types of stress in reversal theory can be seen as a choice to some degree. Apter (1989) suggested that one is able to substitute get-up-and-go effort stress with sit-and-suffer tension stress. He commented that telic-dominant people are more likely to take problem-focused coping strategies involving direct action against sources of stress, whereas paratelic dominant individuals are more likely to use other methods such as wishful thinking or distraction.

Reversal Theory Research in Sport

Considering the relative youth of reversal theory as framework for understanding the relationship between stress and performance in sport, it is not surprising that there is only a small (but growing) amount of literature in the area. There have been a number of studies that have explored performance from a reversal theory perspective. Kerr's (1989) work on anxiety, appraisal, and sport performance linked reversal theory's paratelic states with Csikszentmihalyi's flow states, suggesting that the telic state was not concomitant with flow experiences. Kerr's (1993) study of reversal problems (maladaptive reversal into negative anxious states and reversal inhibition) suggested that learning to induce a reversal may be just as important an aid to sports performers as arousal modulation.

Published research into reversal theory in sporting contexts can be broadly categorised into two approaches: those that explored motivational preference, and those that measured a range of indices before and after physical activity or sport participation. The first category has focused on metamotivational dominance in relation to individual differences in sports experiences, sport participation choices, group differences (professional/amateur/recreational), sports-specific differences (type of sport, level of risk in sport), task-specific differences (explosive action), and gender.

One research group, Martin and colleagues (Martin, 1985; Martin et al., 1987) conducted three studies looking at the responses of paratelic and telic dominant individuals to increasing levels of arousal. Overall the studies demonstrated that paratelic dominant individuals were more adversely affected by the absence of stressors in their everyday lives and displayed greater dysphoria at low levels of arousal than did telic dominant individuals, but, they thrived on moderate amounts of stress. Subjecting results

from the Telic Dominance Scale (TDS; Murgatroyd, Rushton, Apter, & Ray 1978), the Profile of Moods States (POMS; McNair, Lorr, & Dropplemann, 1971), The Daily Hassles Scale (DHS; Kanner, Coyne, Schaefer, & Lazarus, 1981), and The Life Events of College Students Scale (LECS; Sandler & Lakey, 1984) to a hierarchical multiple regression analysis in the first study, Martin predicted that high levels of arousal would be more stressful for telic dominant people, and claimed to show a positive interaction between telic dominance, stress, and mood disturbance. Initially, for paratelic dominant individuals, as the frequency of negative life events increased, a corresponding decrease in mood disturbance was observed (suggesting that the negative life events were experienced as pleasant), up to a point. When the frequency of negative life events continued to rise, however, the paratelic dominant subjects also experienced them as unpleasant, which Martin and colleagues suggested showed a reversal into the telic mode. Up to a certain range of stress/arousal, the effects were opposite in the telic and paratelic individuals. In the subsequent studies Martin and colleagues (1987) used the Recent Stressful Events Questionnaire (Martin et al. 1987) in conjunction with the TDS and The Beck Depression Inventory (Beck et al., 1961). Martin et al. found that telic dominant individuals experienced greater dysphoria where issues remained unresolved than did paratelic individuals. Finally, the researchers showed that under conditions of evaluation stress (being monitored and scored on a video game exercise), paratelic dominant participants remained relatively unaffected by the moderately stressful condition, whereas telic dominant subjects were more adversely affected by the moderately stressful conditions than the low stress conditions. Telic dominant performers reported feeling more unpleasant and more dissatisfied with their performance, perceived the

experimenter as more hostile, critical, and disapproving, and exhibited a stronger galvanic skin response. The researchers suggested that increased social evaluation stress might have interfered with the performance of telic dominant individuals, but enhanced the performance of paratelic dominant individuals. Another possibility, not mentioned in the study, may be that factors of introversion or extraversion may have been just as influential, if not more so, than the metamotivational dominance influence in regard to being socially evaluated. The set of studies by Martin and colleagues was an ambitious attempt to demonstrate the range of outcomes, conclusions, and indices discussed here using quantitative methodology.

Kerr (1987b, 1989) investigated the utility of matching cognitive intervention strategies designed to manage stress (increase or decrease levels of arousal and/or induce a reversal to the opposite state) around metamotivational dominance and salient states. His work has drawn attention to the importance of assessing how the individual perceives stress before embarking on stress management programs that ostensibly aim to reduce stress. Baker (1988) has also reported that telic and paratelic dominance plays an important role in stress appraisal and coping style.

Some of the most well-known reversal theory research on metamotivational dominance in sport was a series of studies that looked at the effects of telic dominance and metamotivational state on squash task performance (Kerr, 1988; Kerr & Cox, 1988; 1990) first within a laboratory type squash setting, and then in a more ecologically valid environment of simulated squash tournaments. No significant differences in telic dominance were found between skilled, average, and novice players in the laboratory setting, but the hypothesised differences in high or low hedonic tone for paratelic or telic

dominant individuals, respectively, in conditions of high arousal were reported. The simulated squash tournament study showed that although there was no significant difference in the number of paratelic winners versus telic winners, winners did not appear to change frequently from their preferred and dominant state, compared to losers. If the theory is correct, tension-stress experienced by winners was, therefore, likely to have been minimal and the consequent effort-stress not realised (Apter & Svebak, 1990). A further finding from the study was that losers' arousal levels fell dramatically (although stress continued to increase) once it became apparent that a win was highly unlikely, which may provide insights into the patterning of arousal levels during poor performance.

Reversal theory researchers have developed psychometric measures that are specific to the theory and on the whole, the studies have largely used methodologies that were originally developed in sport psychology to test conventional personality trait theories. Quantitative methods such as regression analysis or the application of correlations have been used to test for relationships between some aspect of performance or participation and questionnaire scores. That relationships did occur, such as a relationship between arousal seeking preference and sport preference, gave face validity to reversal theory constructs such as the telic-paratelic dimension, yet the results provided little insight into the subjective experiences of the sports performers, and whether the experiences were influenced by their metamotivational dominance.

The second category of research used metamotivational state measures completed before and after real sporting activities. For example, Wilson (1993) measured male and female tennis players before and after competition and found greater post-competition tension-stress and higher arousal in females. Kerr (1997) has produced a review of six

studies that have used the reversal theory approach to investigate winning and losing in various sports including rugby (Wilson & Kerr, 1999), canoeing (Males & Kerr, 1996), gymnastics (Kerr & Pos, 1994), and the squash studies by Kerr and Cox (1989, 1990), cited above. These studies have almost exclusively used pre-and post-event measures to chart emotional changes associated with task performance and outcome. Wilson (1999) noted that for the individual sports, there is a single winner, two place getters, and the rest of the field (losers). In order to win the aim is not simply to beat an opponent or a specific other competitor, but rather the competition involves optimising one's own performance, score, luck, preparation, and one's psychological state on the day. The competition is impersonal and is almost entirely focused on self and the performance of self; therefore winning or losing may not be the only gain or loss experienced on the day. Wilson suggested that the emotional states experienced prior to and during competitive sport and responses to winning and losing are generally consistent with the predictions derived from reversal theory. Sport is entered into and performed in the pleasant mastery emotions, and high arousal somatic emotions dominate (with some exceptions for feeling relaxed prior to competition, which were seen in the squash studies).

These pre-post studies did give more insight into the performers' reported changes in mood and arousal, and to an extent, supported Apter's (1982) claim that individuals will experience a range of metamotivational states that may change rapidly, yet still at a relatively broad, unrefined level of detail. Studies were generally group based and comparisons were not made between individuals.

Some of the psychometric self-report measures designed and used for such early research, and also later work, have included: the Daily Hassles Scale (DHS; Kanner,

Coyne, Shaefer, & Lazarus, 1981); Life Events of College Students (LECS; Sandler & Lakey, 1984); Negativism Dominance Scale (NDS; McDermott, & Apter, 1988); the Profile of Mood States (POMS; McNair, Lorr & Dropplemann, 1971); the Somatic State Questionnaire (SSQ; Cook, Gerkovich, O'Connell, & Potocky, 1993); the State of Mind Indicator for Athletes (SOMIFA; Kerr, & Apter, 2000); the Stress/Arousal Checklist (SACL; Mackay et al., 1978, see also Cox & McKay, 1985); the Telic Dominance Scale (TDS; Murgatroyd, Rushton, Apter, & Ray 1978); the Telic State Measure (TSM; Svebak, & Murgatroyd, 1985); the Tension and Effort Stress Inventory (TESI – state version; Svebak, 1993); and the Telic/Paratelic State Instrument (T/PSI; Calhoun, 1995; Calhoun & O'Connell, 1995).

Several stress-performance specific studies have come out of the reversal theory literature. Research into dominance-based differences in the stress-response to sport has provided evidence to support reversal theory arguments about motivational style and the experience of stress. Studies have largely reported that telic dominant individuals exhibit a positive linear relationship between the severity of stressors and mood disturbance, whereas paratelic dominant individuals have been found to exhibit a curvilinear relationship between these two variables (Martin et al., 1987; Summers & Stewart 1993), thus affirming the different responses to stress by telic and paratelic dominant sports individuals. Differences have also been highlighted in terms of the stress responses of participants in different sports. Kerr and Svebak (1994) undertook a study examining stress responses and possible changes in emotions for male students ($N = 109$) participating in three different sports: rugby, basketball, and running in small groups. The activities were chosen on the basis of their "antagonistic physical interaction" (API,

which is how much physical contact is involved in each sport and the intensity of that contact) and the individual's interpretation of associated cognitive and social consequences of each sport activity. A significant relationship between level of API (rugby being the highest level of API and running the lowest) and stress was found. The results (using the TESI) showed that levels of tension stress and effort stress in sport may depend on the type of sport, perceived consequences, and the type of the activity within the sport.

Males and Kerr (1996) found differences in individuals' experience of stress for elite slalom canoeists, also using the TESI stress and effort scores and qualitative methodology of coding athletes interview responses using the Metamotivational State Coding Schedule (MSCS; O'Connell et al., 1990; Potocky, Cook, & O'Connell, 1993). Intra-individual score analyses showed that better performances were associated with low discrepancies between preferred and felt levels of arousal in varying levels of competition. Males, Kerr, and Gerkovich (1998) followed this study by conducting season-long interviews with nine male elite slalom canoeists. All canoeists were interviewed within 24 hours of all competitions across a season and asked what affective responses they had just before and during a competition. There were no reported differences in above versus below-average performances (as determined by an index for assessing performance using racing results) in the precompetition frequency of telic or paratelic states. Nevertheless, three competitors reported paratelic states during above average performances, and one competitor during below average performances. The researchers also reported that combinations of paratelic conformity and telic mastery metamotivational states were reported more during above average versus below average

performances. The result suggests that there was an optimal state combination for the participants involved.

LeGrand (2003) examined the relationship between mood profile, competitive affective experience and athletic performance for an elite male javelin thrower at seven track and field events, using a time-series model for single-subject designs. Levels of pleasant emotions were found to be consistently higher for the athlete in this study regardless of his performances, some of which were good and some not so good, thus suggesting to LeGrand that the hedonic tone of precompetitive emotions is ineffective in differentiating between good and poor achievement. Nevertheless, when considering individual moods instead of emotional groupings, placidity, anger, boredom, and provocativeness scales were found to fluctuate significantly between best and worst performances of the season. The athlete preferred to feel angry and rebellious (negativistic state of mind), and the induction of this state was adaptive for him. He described getting into "a malicious way of being," withdrawing from contact with others, and shooting "black looks" at his opponents prior to and during competition, then returning to his more conformist state once competition was over. When he could achieve this state, his tension-stress was recorded as being low.

Kerr et al. (1997) investigated the effects of different combinations of metamotivational states (telic or paratelic) and felt arousal (high or low) on archery performance. They hypothesised that the combined high hedonic tone group (telic-low, paratelic-high) would perform better than the combined low hedonic tone group (telic-high, paratelic-low). That is to say, the archers who perceived their arousal (low or high) as pleasant would perform better. The hypothesis was not supported in the research

findings, which suggests that good performance relies on more factors than whether athletes are enjoying themselves. Woodman and Hardy (2001) suggested that reversal theory presents a good method for examining the effects of hedonic tone on performance, but the question still remains, why should hedonic tone affect performance? Woodman and Hardy argued that there is no theoretical reason to suggest pleasant feelings about one's level of physiological arousal should lead to better performance, and reversal theory does not offer a great deal in explaining how and why anxiety might affect motor performance.

Measurement Challenges and the Path Forward

Males (1996) has suggested that three factors remain critical in future reversal theory research to further understanding of its application to sport: (a) that studies should take place during real, elite level competition rather than experimental manipulation settings, which should elicit a "truer" emotional investment from the athlete than a staged event such as Kerr and Cox's (1988) squash studies; (b) that research should focus on individuals as well as groups, and thus move away from group-based statistical analysis, large groups, and the search for statistical power, and focus more on individual case studies and relevant changes over time, allowing group patterns to emerge at times; and (c) that qualitative rather than quantitative methods should take precedence, because the more important research questions are more idiographic and qualitative. Nesti (2004) also proposed that anxiety in-event rather than pre and post-event is likely to prove more important in influencing performance;

In contrast, Jones and Hardy (1997) argued that many of the valuable empirical findings in stress research in sport were obtained from quasi-experimental or even true

experimental paradigms in which at least some control was maintained over the independent variables. In opposition to Jones' view that researchers have a sound understanding of the stress-performance relationship based on conceptual clarity and empirical evidence, Rennie (1994) and Dale (2000) pointed out that the dominant reductionist paradigm of general psychology has held an exclusive and almost untouchable position in sport psychology. Despite there being many qualitative studies in sport psychology, most are still influenced by quantitative paradigms. Dale stated that the discipline has followed a narrow focus of identifying behaviour in line with the hegemony of the natural science approach, and eschewed interest in exploring the meanings associated with such behaviours, which is more in line with the existential and phenomenological approaches. In his view, this rigidity leaves a gap in what we can understand, and therefore, how we can help athletes.

Studies using qualitative methodologies (e.g., Dale, 2000) and alternative approaches (e.g., Gould et al., 1993) on individual athletes in the study of anxiety in sport are beginning to draw attention. Research methodology issues have begun to be addressed in some quarters, (e.g., LeGrand 2003; Males & Kerr, 1996; Sparkes, 2002). Nesti (2004) argued that this expansion and evolution of methodologies in studying anxiety in sport has not necessarily meant a parallel shift away from the dominant natural scientific orthodoxy of mechanical determinism and the study of cause and effect relationships, towards a more human science where the participants are both the objects and the subjects of inquiry. Calls for improvements in ecological validity and integration through the use of qualitative and combined methodologies for case studies, and for the

consideration of mood and emotion (Gill, 1994), suggest a broadening of the approach to the study of stress and performance in sport.

CHAPTER 3

METHODS

Participants

Participants in the study were a mixed-gender group of six triathletes on athletic scholarship at a State institute of sport in Australia. The age range of participants was between 19 and 25 years old. The length of time the participant had been involved in triathlon ranged from 3 to 9 years at the time of the interviews, although all but one of the participants had migrated from another sport associated with triathlon (swimming, cycling, or running). As scholarship holders, all participants were regularly competing at regional and national levels during the season. In all cases, the participants had vocations outside of their sport, including part-time work or study. Five of the athletes lived at home with their families; the other one had recently relocated for training purposes and lived with extended family members. All of the participants were Anglo-Saxon, and they had completed a minimum of 14 years of education.

Procedures

Initial contact was made with the head coach of a State institute triathlon program in Australia to outline the study and ask for expressions of interest in participation from his coaching group. I presented an outline of the proposed study to the coach and discussed possible outcomes from a research perspective, such as providing a contribution to the understanding of the stress – performance relationship in sport. We also discussed some possible outcomes for the participant group, such as increased insight and awareness into their own behaviours and responses to stressful events during competition, and how this knowledge might be useful for the athletes. The identification

of emotional or behavioural patterns that may inhibit or help the athlete to cope effectively with stress would be an example of a possible research outcome for the participant. Such pattern or theme identification may encourage the athlete to review and move away from negative behaviours, or to recruit helpful behaviours during the competition period.

I also discussed with the coach some of the ethical considerations within the research process. Particular considerations included protecting athlete confidentiality and the steps I would take to maintain the anonymity of participants, such as changing names and personal references within the text, and coding any transcripts that may need to be reviewed externally by examiners or advisers.

Even at this point of initial contact, as a neophyte researcher I found myself on seemingly shaky ground. I felt uncomfortable on several counts, but primarily with the flow of information from the coach about the athletes in the group. As a coach working in close proximity with these individuals, he had a unique vantage point for assessing the relationship between stress and performance in the athletes, their responses to stressful stimuli, and their coping strategies. This information was appealing to me at the outset of my in-depth study of these people, yet I was concerned that the coach's often robust opinions might colour my view of the athletes, and that I might surreptitiously absorb his opinions about the athletic potential, strengths, and weaknesses of each group member. I wondered how I could file all these data away and not let them contaminate my interviews with the athletes. I was looking for purity in the research process. This personal demand for objectivity was, in part, a perfect opportunity for me to recognise my unrealistic view of myself as a neutral, impartial agent in the research, a passive

observer in the interviews, rather than a person with biases and preconceptions. I needed to acknowledge that, although I would try to relate to the athletes as openly as possible, I would undeniably influence and shape the data presented. Despite having made a choice to pursue a qualitative methodology, I still felt the pull towards the cleaner, "more scientific" methodology employed in so much of the research I was familiar with in the field. It was a constant struggle to remind myself that the scientist, with academically credible and linear methodology, most likely experienced much the same challenges as the less structured, confessional storyteller. 'Science' for me had always been spelled in upper case letters. My tertiary education had been in the 'hard' sport sciences and I had made the mistake of believing science to be objective and clean, because that made me more comfortable.

A second concern arose for me in managing expectations about what the research could and could not be expected to achieve. I was fortunate in that the coach was supportive and co-operative with regard to the research work. He had a multitude of questions about sport psychology as an applied discipline, and we engaged in discussions about the research into the stress and performance relationship at length. There were times when I suspected that the two topics became merged into one stream of thought. The research was designed to explore the athletes' experiences, and although this exploration could lead to insight and ultimately to change, it might change nothing at all. The research was not an intervention, and I found myself at pains to explain this no-change possibility. As a novice researcher, keen to please and eager to have the coach on side, this process of setting expectations felt at times like letting him down. A part of me wanted him to think it would facilitate all sorts of positive outcomes and create world-

beaters in his ranks. Alas, in my endeavours to promote the research and ask for his co-operation, I was at risk of forgetting what a small piece of the puzzle this study was likely to represent.

Participant Recruitment

The gap between my preference for a method of research that shared power and responsibility, and the reality of conducting a study emerged again with regard to participant recruitment. I had stated in my written communication to the athletes and the coach, and in my university ethics application, that participation in the research would be voluntary. In his enthusiasm for the research and for sport psychology overall, however, the coach had strongly recommended that certain athletes volunteer for the study. He had noted to me that these athletes would provide interesting case studies, and that others may be less interesting. I was becoming aware of the possibility that the coach's encouragement to participate might be perceived as coercion by the athletes, thus making participation seem involuntary. On the other hand, this helpful person was being invaluable in getting my study underway. To address my discomfort, I accepted an invitation to speak to the whole athlete group about the research at a sports science lecture night. I emphasised the voluntary nature of participation in the study, including the right to withdraw at any point. I emphasised that a decision to participate or not, would not be related in any way to selection decisions or scholarship, and was in no way compulsory. I also noted that the information shared would be edited where necessary in order to protect participant confidentiality, and that at no time would information be passed back to the coach unless the athlete specifically requested me to do so. I explained how information would be stored, and who would have access to this information and why. Athletes were invited to respond to me directly via telephone or e-mail. Following this presentation, six athletes responded that they would like to participate and were sent written information via e-mail.

Pilot Interviews

A series of pilot interviews were conducted with the coach as a participant. These interviews allowed me to get used to the process of recording on tape, as well as providing an opportunity to rehearse the interview process. A secondary benefit of these interviews was that it gave the coach an opportunity to comprehend more fully the personal nature of the interviews, and to offer comments and feedback on the process.

Interviews

Participants were asked to nominate three races over the competitive season in which they felt they had a high emotional investment, and after which they could be interviewed face-to-face. Of the six participants, three were only able to offer two races for review. In all but one case, interviews took place within 48 hours of the race. The exception was for an athlete who had decided to stay on for 2 days after an interstate race. This participant was interviewed 4 days after his race. Another athlete sustained an injury during the season and was unable to compete in her last race. I interviewed this athlete after her third scheduled race nonetheless, as I felt that the topics of stress and performance were still highly relevant.

The majority of interviews took place in the offices of the sporting institute with which the athletes were affiliated. Several interviews were conducted in cafes where this was more convenient for, or preferred, by the athletes. The period during which interviews were conducted covered approximately 14 weeks. Interviews lasted between 35 and 90 minutes. The five case studies which I felt were richest in detail were written up as part of the thesis.

Challenges Using Qualitative Methods in the Field

As with using any methodology, there were some difficulties using the qualitative method. In one long interview in which I was particularly engaged, I did not notice when the tape ended and consequently failed to record the last 20 minutes of the conversation between me and the athlete. This segment of our discussion had represented an important component of the interview, and I was irritated and embarrassed on realising my error the next day as I transcribed the tape. I paced the room, unsure whether it would be worse to call my supervisor or the athlete to confess my incompetence. I decided to go straight to the athlete. I wrote down all that I could recall from the last part of our conversation, referred to my interview guide (which in reality had been largely abandoned by that stage of the conversation), and selected what I considered the key points. I contacted the athlete and explained what had happened. We shared our recollections, and we agreed what I would record as part of the interview notes. Despite this consensus, however, this particular transcription is not a true reflection of the words spoken between us at interview. The inaccuracy of the record initially felt like an inaccuracy in the story. Notwithstanding this feeling, the situation provided me with a different viewpoint, as the athlete had reflected on and added to what had come up at interview by the time we spoke again. The error was actually a reminder that perception about events and feelings shift and change even through the expression of those perceptions.

Methodological Development

Collating the Data

All interviews were transcribed by hand and reviewed several times as part of the thematic analysis process. Through these reviews, I evaluated key features of the stress-performance relationship for the athletes. Examples of key features included: mood and attitude pre-race, during the race, and post-race for the athletes; environmental factors of the race (conditions, location, competitors, and crowd); coping strategies employed to deal with stress; outcome expectations; and responses to stress during the race in terms of performance. I subsequently evaluated each transcript for reversal theory themes. Reversal theory themes included examples of metamotivational state reversals, metamotivational arousal, metamotivational dominance, paratelic protective frames, tension and effort stress, and responses.

Initially, I employed an elaborate system of reversal theory coding whereby I charted all reversal theory type responses from the transcripts onto a huge individual map for each athlete. I gathered evidence to support my beliefs about the metamotivational states and journeys of each person. Once again, I realised that I was minimising the data by doing so, and that the process I was using was filtering out the sense of the individual. My method was getting in the way of my results. Time and time again, I needed to come back to the original questions of the research and to move away from the vortex of methodology and my own desire for credibility as a researcher. Perhaps this striving for methodological credibility mirrored the greater striving of applied sports psychology, as a young discipline, to be credible as psychology and sports science. To research and not conclude, to analyse and not present objective outcomes, felt flimsy in the face of years

of academic research in the positivistic tradition. Yet I remain convinced that the things that stay with me through my own learning are the details of a person - their thoughts, feelings, behaviours, and conation. I reverted back to my original questions, read, listened to, and re-read the interviews, and wrote notes in the margins of the transcripts. These notes were primarily about my impressions, my relationship with the participants, the key factors noted earlier in this section, and finally about how reversal theory might be used to the data.

Representing Participants Using Their Language

On several occasions, I consulted with authorities in the reversal theory field to ask for opinions, or to discuss issues such as local or colloquial differences in languages that are associated with reversal theory. I also consulted with peers and colleagues in the sporting field (athletes, administrators, and coaches). For example, an affective descriptor used for the paratelic-negativistic state in reversal theory is sullenness. It is hard to imagine an Australian triathlete in their early twenties using that descriptor. Words such as down, and blue, also seemed to describe the state. For the telic-negativistic state, the traditional reversal theory descriptor of placid also fell short for the audience in question on most occasions. Descriptors such as “having no worries” “accepting,” or “easy-going” seemed more relevant. Developing a group-specific lexicon that was broad enough to encompass common local language but also narrow enough to stay true to reversal theory was an important part of the methodology.

Initially, my intention had been to use a questionnaire-based psychometric measure as part of the research design. The aforementioned language issue was a factor in deciding not to use such a tool (on the original Consent Form in Appendix A it states that

these data would be collected, but the design changed to a totally qualitative one, and such data were never collected). As the process developed, I also felt less inclined towards using reversal theory specific tools, as I became more uncomfortable with trying to fit what I heard into a reversal theory box. It seemed that I would be likely to find specific evidence if I used specific tools. Observing phenomena validates a theory of phenomenology, but I questioned how I could achieve this independently without interfering with, or creating, the phenomena through language-specific and manipulative questioning. I wanted the themes I reported on to emerge naturally out of the stories that athletes told. I have tried to achieve this through focusing my attention on the relationship between myself as the researcher and the athlete as participant, and giving the participants room to explore their experiences with me, rather than asking them for concrete or factual descriptions.

Dual Roles

At the end of the interview with Tyson, he asked directly for my advice and guidance as a sport psychologist regarding a performance slump and an issue that he viewed as a lack of confidence within an aspect of his racing. By this time, we had spent a couple of hours one-on-one, talking intimately about his racing, what he finds stressful and the effect that stress can have on his performance. The question itself was a reflection of a growing relationship and rapport between us, and I did not think it an unreasonable adjunct to our conversation. The question did, however, bring up the issue of dual roles for me. In my relationship with Tyson I was acting as a researcher and he as a participant; it was not a counselling relationship. Two issues seemed pertinent. First, if I ventured down the path of working with him in an applied way in regard to his confidence, how

would that influence his responses towards me in future discussions? Would it shift the power dynamic away from what I hoped to achieve: an even distribution of power in the interactions, and then become a client-service provider dynamic? Second, and almost in contrast to this last point, I wanted to take the opportunity to even up the balance that inherently exists in the exploitative researcher-participant relationship. This athlete was voluntarily giving me his time and his insights, with the only stated outcome being the completion of my thesis and qualification. I felt tempted to instate a fairer transaction. The outcome was that I responded to Tyson with some initial thoughts about his issue, and offered to refer him to another sport psychologist locally. He did not take up that offer, but we did touch on the confidence issue again in the next interview.

A Crisis of Representation

About a month after the completion of the interviews, Tyson contacted me to ask if he could refer a friend to me for consultation, which I accepted. This referred athlete, my client, occasionally spoke about Tyson and how she viewed him. It had not occurred to me that an outside view might further colour my perceptions of Tyson, and I grappled with keeping the third party impressions out of his stories as I wrote them up. It seemed challenging enough to try to represent him as he saw himself, let alone to reflect on the influence my analysis had on the presentation of his story.

Another participant, Ella, contacted me about 8 months after the completion of interviews and asked if she could do some applied work with me. At that stage, my research was not fully written up, and the issue of dual roles arose again. Before I could work with her, I needed to have fully completed her case study and shared it with her, making sure that I had addressed any feedback she had and that we had reached

consensus about how she was represented. I found this situation challenging, because I did not necessarily view myself as an authority on Ella, yet I was representing her to my audience in written words and images. Who was I to tell the story of this athlete? How would I explain to her the way I had interpreted her story and why I may have focused on some aspects over others? Worst of all, what if she did not like it? In Ella's case, no such issues were expressed, but it highlighted to me the level of my involvement in the relationship through doing the research, and also, that scientific objectivity was, at best, elusive.

After transcription of each interview, I sent copies to the participants and followed up with a phone call or e-mail to see if what had been transcribed represented the interview well enough in terms of what they had wished to get across. Each participant also received a copy of his or her completed case study for review. Further to this review, I invited feedback and clearly communicated that I was happy to change any aspects that did not feel comfortable. On reaching this stage, we also discussed how the athlete had found the experience of participation.

CHAPTER 4

FIVE ATHLETES' STORIES

Case Study 1

Ella's Story

Introduction. My first impressions of Ella were of a statuesque, attractive young woman with a quiet strength and presence. Her demeanour was cautious, and she stepped through her stories and experiences slowly, often fixing me with an intense stare. I got the feeling she had substantial reserves in terms of her willpower and resilience, but that she did not reveal herself readily, or trust me, without caution. At the same time, there seemed to be an innocence about Ella that sat outside this intensity. She seemed surprised to be experiencing her current level of success as a relative newcomer in triathlon. She also seemed genuinely unaccustomed to the positive feedback from her coach and others.

At the time of interview, Ella was 19 years old. She had recently relocated from a small town to the city in order to pursue her sport and train regularly with the State triathlon squad and her coach. She has also just started a university degree, which she said she was enjoying. Ella had one older sister, and she reported a sound relationship with both parents, who were still married. Ella stated that her mother was more involved in her sports career, although her father also demonstrated interest and occasionally came to support her at competitions.

After our first interview, Ella sustained a foot injury that ruled her out for the second of the races we had planned to review. We met only twice, and the second session

was delayed for over a week post event. There were two brief telephone conversations in between the first and second interviews.

Ella's involvement with sport spans a period of over ten years. It started with junior athletics competition for middle-distance running, cross-country, and swimming club, where she advanced fairly well. After being approached by a coach at an invitation triathlon day, Ella decided to give triathlon a go. At the time of interview, she was a scholarship athlete with an Australian State sport institute, racing both sprint distance and Olympic distance triathlon competitions.

Ella appeared to be able to identify and report her thoughts much more easily than her feelings. On occasions throughout the interview sequence when I asked her to describe the way she felt or her mood, she seemed to find it difficult to articulate. It seemed that although she could readily recount her thoughts or behaviours throughout her race experiences, she struggled to seek out or recollect the way she felt, even in regard to events that she found stressful. It occurred to me that she might be cautious about revealing her emotional side to me. It was, of course, reasonable not to trust me and my probing questions at the outset. I was an unknown quantity, a student researcher talking with her about stress and her competitive life, asking her to tell me when she felt vulnerable and how she responded under pressure. As our relationship grew, however, and Ella and I had the opportunity to become more comfortable with each other, I noticed that she became increasingly forthcoming and spontaneous in her responses. She even seemed to enjoy the recounting of her experiences, a conclusion I drew from the increased level of animation in her discourse, her positive affect, her smiles, the use of her hands to gesticulate and add emphasis to what she was saying, and the softening of

her gaze. In the second interview, Ella was readily talking about the underpinning stresses she felt around core issues such as self-belief, identity, and the expectations of others, as well as her needs and stresses within competitive racing situations. With some participants trust and rapport seemed to come easily as a function of complementary personalities and ease of conversation on both our parts. Ella was more cautious and trust seemed to develop more as a function of me passing her interpersonal tests and moving at her pace rather than mine.

When Ella introspected and was describing negative emotions, she used words like disappointed, angry or frustrated. On later reflection, I felt that there was hesitation in expressing these things, as if Ella felt that it was less acceptable to describe low hedonic tone and displeasure, than to present an attitude of coping and resilience. Particularly, this hesitation was apparent where Ella presented contradictory emotions at the same time, for example:

1. It was better than I expected. Some parts were worse. The swim was terrible.
2. I was feeling a bit anxious at first, but not so much.
3. Erm, I mean, I was quite happy. But at the same time, I was a bit disappointed as well.

As Ella seemed to grow more comfortable with me, and with the interview process, there seemed to be less contradiction in her descriptions of her experiences and her motivations.

Stress and coping. For Ella, there was evidence of stress in several areas. Probably the most noticeable area was her need for control and her discomfort when she was unable to feel her preferred level of control:

P: Anything else that you can think of that might cause you stress in a race?

E: Yeah, if I'm not in control of the race, that's probably the thing that stresses me.

P: In control of the race as you had planned it? Or in control in terms of winning?

E: No, it's not always winning. More as I had planned it.

Ella provides an example of stress working for or against a person. She described situations where she felt unpleasant levels of stress that had a negative impact on her, but she also described situations in which she deliberately added stressors to her life and got some sort of thrill out of doing so, up to a point of saturation, as the following passage from the interview highlights:

P: You like it when there is a big challenge, something that you have to take a big bite of rather than just nibbles of?

E: Yeah, usually I do. It seems to go OK for a while, then I usually crash. That's usually when I need to go back home. I've had a few times when everything builds up, then I crash. I think sometimes I take on more than I can do.

P: OK, so you mean when you take on a harder challenge, it gets to a point where you said you crash. What happens?

E: I get fairly depressed and upset, then I start to feel homesick and emotional.

P: When you get to that point where you're building and building and building, are you aware that you're getting close to it being too much?

E: Um, I think so.

P: You know before when you said you kind of like that level of challenge, you like it when things are tough? Are you still enjoying it?

E: I'm not enjoying it when it's at the out of control stage, but if it's just a little at the controlled level, that's good.

This pattern of behaviour as Ella described it seemed to be cyclical, with momentum up to a peak level and then a drop off in positive affect and a jump in negative affect, as this later passage shows:

E: I generally think I'm pretty controlled, but every couple of months or so it gets out of proportion.

P: But when you've had a tantrum, as you were saying, and you've expressed it all and felt teary and depressed, what happens then?

E: I calm right down again and go back to the starting point again.

P: OK, you go back to the start again and your motivation for taking on tough things comes back?

E: I guess so.

Although this pattern repeated itself for Ella, her emotional climbs and descents affected her greatly. When things did get out of control, she described depressed affect and overwhelming anxiety. The rest of the time, I felt she wanted to show stoicism in her coping, but there was something punishing about the way she controlled herself, perhaps a strong perfectionism that meant it was not OK to cope imperfectly.

On a macro (life) level, Ella expressed feelings of stress around her potential, her ability, and the way other people saw her. She expressed a restlessness about where she was in her athletic career, but rather than this restlessness being about an urgency to move up the ranks, it was more like a kind of surprise about how she had come to where she was currently. In talking about identifying with the role of being an athlete, Ella made the following observations:

1. P: Feels like a big step?

   E: The scariest thing is that I don't know exactly what I have to do to get to a position where I'll be travelling overseas. Like I knew about athletes being overseas, but it seems a long way away

2. E: If someone asks me what I do, I usually say the university. I don't like saying, 'Oh, I'm a triathlete.' I don't know whether I should or what?

   P: What sticks in your throat about it? What do you think that's about?

> E: Because I'm not competing overseas, I feel like I'm not good enough, so I can't say I'm a professional athlete or elite athlete. At uni, people say, 'Do you play sport?' and I just say, 'Yeah, a little bit of it.' I don't know.
>
> P: I listened to the tape of our last chat. You came across as really confident about your sport, but you didn't feel very comfortable about describing yourself as an athlete, [and you seemed] uncomfortable with the idea that you were that good.
>
> E: I was a little bit. It's hard because [coach] said something the other day and I sort of got shocked, like, 'Why are you getting these expectations? Are you talking to me?'

Possibly this sense of confusion suggests that Ella does not yet have a very strong or resilient sense of her athletic identity. Considering that she is also at the stage of embarking on a university degree and may have other developmental milestones in her life (in an Eriksonian sense), and is a relative newcomer in the sport, this response is not surprising.

Reversal theory purports that there is a distinction between tension stress – the stress that exists because there is a discrepancy between the felt and preferred levels of arousal (or some other variable) ─ and effort stress, that comes from the individual's efforts to diminish or rebalance tension stress. Responses to external events most likely fit into the category of tension stress, and control over self seems to fit more cleanly into the category of effort stress. Some of Ella's story suggests that she experiences tension stress when she feels diminished levels of control over external events (e.g. being injured and performing below par, having a tyre blow out on the bike leg of a race, not having support from other competitors in the ride). Ultimately, Ella's responses to these experiences are tied to her perceptions about her ability and her desire to control outcomes, and her experiences, sense of coping, and emotional stability may be tied to this (Burger, 1992; Friedman & Lackey, 1991). The question underpinning some of her

responses seemed to be in the vein of, "If I deviate from my plan, will I cope?" The distinction between tension-stress and effort-stress in reversal theory terms is apparent in Ella's descriptions of her emotional experiences within a race. Overall, it seems that most often Ella actively copes with and controls stress through effort. She gave examples of maintaining a technical focus and preventing her mind from wandering during races. Even when describing the race where she was carrying a debilitating injury, which caused her substantial pain, part of her coping was to feel like she had an outcome that she could control and move towards, rather than being overwhelmed by the experience:

> E: I got to a stage where I was wondering whether I should even keep running, because I was probably in too much pain. I was pretty much hobbling along (pauses) I just sort of like to finish even if it's not going to be great for me.

> Ella noted that she tended not to think about anything but the race while she was racing, and she would bring her attention down to physical or technical aspects of her performance such as breathing:

> P: Did you notice yourself physically? You were talking about being aware of it on the beach, your heart racing and stuff. Do you notice that in a race?

> E: I was thinking about my breathing a lot, because in the past I have had trouble breathing when I get a bit stressed and stuffed in a race. So I was really focusing on some of the things I've been shown and taught over the last few weeks.

In training she was more inclined to use the long hours in repetitive motion, such as cycling as "think-time" and try to actively process her life issues. It seems that Ella pays more attention to effort-stress during racing, and to tension-stress in training.

Ella described a range of strong emotions during our interviews including shock, anger, boredom, frustration, disappointment, anxiety, and calmness, but the term *stress* was used more as an umbrella term for her emotional responses to challenges.

Metamotivational states and dominance. Ella's descriptions throughout the interviews suggest that she is inclined to be telic-dominant during her races and her pre-race preparation, as evidenced in the following passages:

> P: Would you normally describe yourself as quite a planned person when you are racing?
>
> E: Yes.
>
> P: So sort of thinking ahead?
>
> E: Yes, pretty sort of structured, I guess.
>
> P: Yeah. What is a pre-performance routine for you? What do you do?
>
> E: I like to get up early. Just (pause) I hate rushing around. There is nothing worse. I'd much prefer to get there early and sit back for a while. And then just make sure everything is ready, have a good warm up, and try and stay relaxed before it.

Her preference for the telic state was, however, not as strong as some of the other athletes with whom I spoke. She also described a type of paratelic excitement and a sense of enjoying what she was doing for the sake of the experience itself, and not just the outcome. Some of Ella's story strongly suggested reversals into the telic-negativistic state and the salience of anger as a somatic emotion during her performances. I felt that anger was an emotion that Ella experienced quite regularly. She gave examples of how her anger was a response associated with stress, for example:

> P: OK, so when, as you said, the swim was horrible, when you were experiencing the things you described, like you couldn't see the buoy in front of you, you couldn't see the feet of the girl in front, all those normal markers you look for, when they weren't there, what was happening then?
>
> E: Erm, I got a bit angry (laughs).
>
> P: Angry? Yes.

> E: Just because I was thinking more … I definitely didn't think before I started, 'What if I can't see the buoy, what do I do?' Like I just didn't think I'd be in that position. I guess I started to stress a bit, because I didn't know what to do.

In our conversation, Ella recounted another story in an angry and frustrated tone (although she remained controlled), when she described a reversal from the alloic-sympathy to the autic-mastery state. The situation involved Ella asking another competitor to work with her in the cycling leg and share the load, but the competitor was unwilling and made her excuses to sit in behind Ella and draft. Ella described her response at the time as shock and frustration, but her countenance on relaying the story to me also showed anger and irritation at what she thought might have been uncharitable tactics from the other athlete.

Ella describes a telic preference but, as mentioned, she also clearly expresses some emotions that fit more with paratelic states, in particular provocativeness. Her stories about her responses to unexpected, unplanned, and challenging situations, and her desire to raise the stakes and force or bait herself, spoke of shifts in attitude towards fierce determination and provocativeness. For example:

1. P: Can you think of occasions where, say, things have gone wrong and you haven't been able to follow the plan, but you've had a good result?

   E: Yeah, sometimes I do the opposite. Like sometimes I talk myself down, then I'll go against it to spur myself on. Like, I like it when other people (pause, makes eye contact with me) when someone thinks I can't do it, I'll do it.

   P: Can you explain that a little bit more to me? Sounds interesting

   E: OK, well, even within a training session, if I have a particular time to do and if I'm thinking, "I don't know if I can do that," another part of me is thinking, "Well, I'm going to do it anyway" (suppresses a grin). And I'll make sure I break the time that is set.

   P: OK, so it kind of sets a challenge for you?

E: Yeah, I love a challenge. I sort of like to do better sometimes than what they expect of me (makes eye contact, her expression is serious). Even if I've been sick, or I've had something wrong, and they think I can't do it, then I'd like to sort of prove them wrong and do really well.

2. P: Can you think of occasions in a race where you thought, "Oh, I'm not going to get near her," or where you've been able to exceed your goals in some way?

E: (long pause) Not really. I can't think of a particular one that stands out. I feel that actually one of my first triathlons that I did a few years ago when I had only just started, it was my first sprint distance, and I remember thinking that it was such a long way, how am I going to get through it? And the other thing was that it was a terrible day, really windy and pouring with rain, the bay was really choppy and the waves were like (pause, rolls her eyes). I remember my mum saying that I didn't have to do this if I didn't want to because a lot of people were getting rescued, as the bay was so choppy, so she was probably a little bit concerned as well. I was fairly young. But then that made me want to do it more. She said I didn't have to, but I went in the opposite direction. I wanted to do it, and I ended up winning the race. I can remember that pretty well.

Not only did Ella seem to enjoy performing under stressful conditions, she demonstrated enough insight to recognise that on occasion she needed this type of energy (be it fear or anger as described earlier, for example) to perform optimally, and she was able to manipulate circumstances to achieve it. The following passage is an example of her skill at work:

P: Sometimes it sounds like being "fired-up'" can work for you too. Being relaxed and in control can work, but then if there are certain contingencies, like being sick or someone presenting you with a challenge, as you said, you can kind of fire-up and go the other way.

E: Yes!

P: So when you are stimulated by something that looks like a challenge, it can work as well.

E: Yes. Yep. Sometimes I feel I do better when it's more of a challenge.

P: When it's harder.

E: Yeah.

P: OK, that's interesting. Have you ever tried to use that deliberately? I mean, have you ever set difficult challenges for yourself?

E: Oh, sometimes I used to get my Dad to come (looks down), to come with me. Because my Mum knows, my mum has been with me all the way, like, she used to take me to all of my meets, whereas Dad used to (pause) not usually, only sometimes come. So my Mum knows me much better. When I'd race, she'd stay away from me. She knew I like to be on my own. She'd know what I needed and wanted. Whereas Dad would do things that would really annoy me.

P: Yes?

E: Like, leading up to a race, I could be on the race morning, and he'd go and get a pie or whatever, and say, "Do you want a sausage roll?" and I'd be like, "Yeah, right, like I'm going to eat that before I race" (grimaces).

P: (laughs)

E: It would just really annoy me. And I think, if I can get annoyed or angry, sometimes it would help.

P: So when your energy actually lifts, I guess anger requires a fair bit of energy right?, So when your energy lifts that way, you can kind of use it?

E: Yes.

P: So you deliberately put your Dad with his pie in the way to fire you up?

E: (both laugh) Sometimes.

P: OK.

E: Sometimes I had Dad come because I knew he would annoy me.

Apter (1983) describes the relationship between negativism (in Ella's case telic-negativism) and a poor sense of identity, whereby anger, as a somatic emotion, is felt in response to being unsure or uncomfortable with where one fits. Ella's angry responses illustrate this possibility well.

Our relationship and the research process. A reflective observation I had with regard to my own behaviour as an interviewer was my need to reassure Ella. Early, Ella appeared to detach from the affective side of her story, I felt the need to bring it back into focus and point out how well she had done. The following passage from the first interview highlights my cheerleading:

P: If I remember rightly, you won the series if you won that race, is that right?

E: Yeah.

P: How did you feel about that?

E: (smiles) Well, I finished. Yeah.

P: But it's still a massive effort, considering you were injured in the last race.

This cheerleading is not a useful thing to do, in terms of helping Ella to tell her story well and to allow the points of difficulty and stress to surface naturally. My move to soothe or reassure her may have actually taken her off course. As in therapy, as my supervisor constantly reminds me, when one finds the point of pain, press it, do not move away because of my own discomfort. With reflective evaluation, I see that these experiences are some of the vagaries of being a neophyte researcher, wading through countertransference and keen to make a good impression on my participant. As Andersen (2005) noted, a key difference between research and therapy is that as a researcher I do not necessarily have agreement to look at and stay with my participants' painful experiences. The blurring of these lines can cause confusion and damage trust. What may be more useful is to listen and question in a client-centred, therapeutic manner in order to help Ella tell her story as a participant.

I also asked some leading questions, and at times, on reading the transcripts, I feel I was putting words in her mouth. When I decided upon this research topic initially, I was focussed on reversal theory as a way of understanding the information presented through athletes' stories on the stress experience. Reversal theory appealed on many levels, not least because it is phenomenological and deals with perception and the experience of motivation. I wanted to know how people felt stress, not just why. But as I considered the topic further, I began to feel that questions that were specific to reversal theory would get answers that fit neatly into reversal theory! This self-fulfilling questioning missed the point, and may have also missed the richness of their stories. I had the experience of liking the underpinning tenets of the reversal theory approach, but being uncomfortable trying to fit what I heard into a box. This gap could be described as the difference between a preference for theory-led induction and the phenomenological emergence of themes. My supervisor, and the readings of Sparkes (2002), had advised me that I should first concentrate on the quality of the relationship with my participant that listening came before analysis. My concerns regarding my credibility as a qualitative researcher, and as a reversal theory researcher, were significant. I had not read anything in reversal theory that approached the interview in this way. The major researchers of the field (e.g. Apter, Kerr, Males) may not approve. Surely they would do something cleverer with the information? Surely their representation of Ella's story would be so much more meaningful to Ella, to sport psychology, and to the world at large? Was I not supposed to *do* something? Eventually, with guidance, the light at the end of the tunnel went on, and I realised I was having the normal symptoms of a crisis of representation in qualitative research. Who was I to tell Ella's story as Ella told it to me? I began to understand that approaching my

relationship with Ella as a means to an end, as Grange (2005), was not as useful as approaching that relationship more openly. I began to understand that bringing my experience in communicating and interacting therapeutically, and accepting that the story that unfolded in the transcripts was as much about the relationship between Ella and me as it was about the way I interviewed or the way she spoke about her experiences, was the key. So some of my questions were leading and clumsy, such as asking specifically about whether Ella found certain things stressful. But after some of the considerations described above, and in the methods section of this paper, I would like to suggest that my mistakes and inexperience are an element of the story rather that a detraction from it. The research comes from the position that there is no true theory, and no singular reality for experiencing stress, just more or less useful versions of explaining it. To quote Kahlil Gibram (1926) "Say not 'I have found the truth,' but rather, 'I have found a truth'."(p.15).

Case Study 2

Tyson's Story

Introduction. Tyson is a male elite Australian triathlete who was competing in the domestic season at the time of the research interviews. He is in his early twenties and has enjoyed a measure of success over the 10 years he has competed in triathlon. Currently his goal is to improve his competitive standard on the international stage in order to get a world ranking and move towards international competition such as the World Championships and the Commonwealth Games. He is a scholarship holder at a State sports institute and a full-time athlete. Tyson grew up in the city where he still lives at home with both parents. At the time of the interview, Tyson was no longer in contention for Olympic selection and had missed out on the upcoming World Championships due to inadequate qualifying points.

My initial impressions of Tyson were of an engaging, appealing person with a warm and approachable manner. When he first entered the interview room, Tyson went to great lengths to explain why he was still in his training gear, apologising the whole time. He was probably one of the better presented of the many athletes I encountered. He is quite self-effacing; he uses humour and apology often, particularly where he seems uncomfortable and wishes to deflect attention away from the source of the discomfort. For example, at one point, he and I were talking about his anxiety levels while on the beach, waiting for the race start. He was describing the field, noting there were some very strong swimmers in the group, and he suspected that he would fall short of what was needed to be in the front pack on the swim. As he became more animated and, it seemed, more attached to his anxiety about not being competitive, he quickly turned to humour

and told the story of being afraid of a jellyfish which was sauntering right across his chosen path. This aquatic menace was the substitute (and safe) source of his real anxiety about not measuring up.

I felt that Tyson made an effort to make me comfortable. He was open and willing to offer his stories and insights. He talked freely and quickly, and readily offered agreement. As a new researcher, this felt good and put me at ease. As I got to know Tyson better, I thought that his accommodating and even acquiescent style may have been a reflection of his desire for acceptance from others. As the examples through this text highlight, it mattered to Tyson what others thought of him.

Tyson seemed keen to appear confident and even unsentimental. There were times when I sensed resistance from him in talking about areas of vulnerability and his responses to stress. His resistance was not so surprising considering that we were newly acquainted and the topics of conversation were sensitive. He described some of his race responses as *soft*, and not reflective of his *tough* sport. I felt that on occasion, when Tyson showed more of his emotions he moved quickly to manage the impression of himself as confident and competent. He was sometimes quite hard on himself and expressed very high, non-negotiable, personal expectations. Several times I noted his concreteness in this respect; he was either satisfactory or bad. He admitted that since being a professional athlete had he not considered any performance as good enough to not need any fixing or improving for next time. Tyson presented as quite an anxious person, at least in reference to his sport. Looking at anxiety from the existential perspective, as a combination of desire and fear, then his desire to be a successful professional triathlete alongside the fear of not being able to measure up or sustain the performances necessary to make this goal a

reality, made worrying a way of life for Tyson. In two of the three interview sessions, Tyson was experiencing a performance slump and expressed feeling pessimistic and negative. It was no doubt a stressful time for him, and in the second interview particularly he was frustrated and disappointed.

Tyson's story is filled with themes of achievement goal and evaluation anxiety. From a dynamic perspective it was possibly more complex than some of the other athletes in this thesis and a deeper analysis of Tyson would be beyond the scope of this thesis. I have chosen to present a limited interpretation of Tyson and his personal and competitive world with a focus on reversal theory.

Stress and coping. At a macro level, my interpretation was that Tyson was an athlete in limbo. He saw himself as a career athlete, a person whose vocational purpose was to win races and to earn money and credibility as an international triathlete. He invested a great deal of time and energy in this view of himself, and made sacrifices and compromises to meet this end, both financial and in terms of other vocational paths. Yet his results were not supporting this view of himself in a consistent or stable manner, and I wondered whether there was a growing discrepancy between his perceived preferred self and his perceived actual self. Tyson's athletic identity seemed seriously threatened by his performance slump (and previous performance slumps). Comments such as "this is what I do, it's my thing" and "it's everything to me, it's my whole life" and "getting good results kind of justifies all the time I spend training and not doing other things," supported the strength of Tyson's identification with the athlete role, and the possibility of him feeling stressed when his performances did not match his expectations. Tyson also pays a lot of attention to the opinions of others. It seemed that when he felt he was under-

performing, he experienced humiliation and embarrassment and that, in his opinion, he was not fulfilling the requirements of the athlete role. My thought was that Tyson was asking himself the question, "If I do not make it as an elite triathlete, what am I doing with my life?" (in other words "If I am not an athlete, who am I?") Despite the improvements in form that he described to me and the length of his successful involvement in triathlon, when it came to the next step of being successful in the international ranks there seemed to be anxiety about wanting to belong but not quite believing that he did.

Tyson may have had an external locus of control in relation to his performance outcomes. He talked about what he needed to do, his confidence levels and mood states, but when he reflected what had actually happened in a race, he used *it* language rather than *I* language, and he described himself as the passive recipient of events rather than a causal agent. This style of attribution may have been ego-protective to an extent, functioning as a coping strategy.

Tyson's future sponsorship and funding were also an underlying stressor, and became more so as his goals for the year fell away, such as qualifying for the World Cup. His plans to live and compete in Europe later in the year required significant financial backing, and the reality of having to save, earn, train, and rely on others was also mentioned as stressors. In the final interview, Tyson expressed relief that his improved performance should get him back into the scholarship program at his sporting institute, which took the pressure off a little bit.

At the micro level, much of the stress that Tyson described was centred on things going to plan in his races. He described himself as a very analytical, evaluative person,

and he had made decisions about exactly where he needed to be placed in the field in order to win or be in contention to win. His evaluation sometimes depended on the field he was racing against, but more commonly was based on his own performance goals, such as his efforts to be in the middle or at the front of the pack in the swim, and on rules he had made for himself, e.g. to always lead into transition and to transition quickly. Whichever bunch he came out of the water with, he wanted to lead them into transition. Tyson acknowledged that his expectations of himself were particularly high this year, as the following passage illustrates:

> T: I think I expected to race a lot better than I have this year. I've never been dropped on the bike in anything before, even, you know, just bike races. I race A-grade around here, and they never drop me, so it's pretty destroying, as you can imagine.
>
> P: A new experience for you
>
> T: Yeah, that's right, and I don't like pulling out. As I say, I think it's pretty soft, really, but it's just, I have an expectation of performance, and when you see a bunch riding away from you, that's all out of the window. I just almost felt (uneasy laugh), "What's the point even finishing?"

Tyson described feeling good in a race only when he was in front (on a run), or in the front bunch when swimming or cycling if he knew that his competitors were not stronger than him on the run. The process of racing was one of constant evaluation and calculation of his position and merit at any point. When things were going to plan, this rigidity worked well. When things were not going to plan, or there was a contingency of some kind, Tyson's mood changed significantly, and his experiences were unpleasant and overwhelming at times, even leading him to pull out or give up, as in the second race we discussed. The following passage highlights his negativity, culminating in a sense of resignation that he cannot win:

> P: It sounds like you were sort of analysing it as you went, and when you acknowledged, "Oh, OK, there is the blue swim cap, and there is the guy I normally out-swim," what is happening to your mood then?
>
> T: Pretty negative. I don't like (pause) I notice that it's pretty negative, I recognise that it is negative, and I sort of try to get rid of that (laughs) and think, "Oh, just keep going, got to go faster." Like it's hard to get back, [to get] that negative train of thought out of your mind, you just, it just kind of goes on and on. It's a pretty significant thing at that point of the race, where you know it's crucial. You know that pretty much makes the rest of the race.

Even where the result was not as dramatic as a did not finish (DNF), when Tyson had reason to believe that his plan would not unfold well, his hedonic tone was low and he perceived he had low control over what he was feeling and what was happening. In contrast, it seemed Tyson was oriented towards action in his coping. It could be argued that dropping out of the race was actually a way of coping with his overwhelming anxiety at the time. A reversal theory perspective might be that through frustration, Tyson reversed into the paratelic state and experienced apathy (boredom) enough to stop him from pursuing his goals and continuing to exert effort. It seems more likely that he experienced frustration, probably anger directed inwards, and possibly a depressed mood. The following passages from the interviews illustrate this:

> P: I remember clearly us having that conversation about [race destination] and about points where you were thinking, "I'm just going to finish" (Tyson interrupts.)
>
> T: Yeah, I did. I didn't even have that in my mind on Saturday. When I got dropped from that bunch, I thought, "Well, this is just stupid." And the problem is, even finishing with that bunch wouldn't have been a bad result. That's why I'm so disappointed with myself for pulling out. Like it wouldn't have been an awful result, it just wouldn't have been good. And I'm just sick of having mediocre results.
>
> P: Are you saying that you think you deliberately sabotaged a mediocre result?
>
> T: Yeah, almost, yes. Sometimes the mindset with the short course races is almost like, you've got to be racing really well or not at all. There is not a huge point in

> finishing 35th or something like that. Who cares? (Laughs.) I thought, "I've seen this situation before, I've been in this situation before, I don't want to be here again," so that's when I just stopped.

Tyson also showed evidence of taking action to cope with stress and boost his confidence, such as adding local races to his calendar when he was lacking self-belief, because he knew he would be a competent performer in these races, and it allowed him to get a win under his belt.

Metamotivational states and dominance. Tyson's self-reports strongly suggest that he is telic dominant, and most of his race descriptions suggest a salient telic-state. He used language such as: working towards, managing, not getting anywhere, geared towards that, preparing for, planning ahead, and what is going to happen. He described a strong focus on planning and avoiding surprises, preferring familiar territory and predictable experiences. The following quotes from our first interview highlight Tyson's telic preference:

1. P: When you are racing, how do you like your energy level to be? Do you like to feel keyed up or calm, or

   T: Ah, I just like to feel confident. You know, not really nervous or jumpy, and not too flat. I just want to feel like I'm in control of everything. When you are racing really strong, that's how you feel. You just feel like you know you are in control of your own race, but you're almost in control of everyone else's as well, because you can hurt them more than they can do it to you.

2. P: Looking back at the race now, what have you taken away from it?

   T: Well, I've got a lot more work to do on my running, and I don't think I've got too much to do on my swimming, perhaps be a bit more consistent. I know it's almost there, just a little bit more to do to make sure I'm always in that front bunch. My running I know, like, just from this season I've got a lot more work to do on it. Other than that, yeah, I don't think I took too much away from it. I just always look at races, even if I race really well, I don't feel so much (pause), I have the same feeling in any race. It's probably just more what I can fix next time rather than just being satisfied with that particular result.

3. P: When you were starting the race, what sort of mood were you in?

   T: Well, I've got a pretty structured plan leading into a race. I work with, what I've done with my coach is that we've worked out a pretty structured warm-up. So I know from about an hour out from the start, I kind of know what I've got to be doing all the time. My mind is pretty much on that all the time. I was kind of surprised that my mind wasn't on the fact it was a World Championship selection, like, I didn't actually think about that too much, which was probably good because I would probably have got more nervous.

4. P: Some athletes at that point describe feeling really in the moment, and focused on what is happening right now. Others describe feeling more inclined to be thinking ahead and planning what is about to happen in the race. How would you describe yourself?

   T: I definitely think more planning ahead, particularly if it's a dive start. You know, there are 50 or, well, 35 people lined up in one line. I just sort of think, from the dive, what is going to happen, like, what will happen. Do you go hard, straight through the dive, or do I let them go and get in behind someone.

5. T: I got to about 6k and I thought, "Oh, maybe just do another k or two, and at least it will be decent training for me." You feel like you have wasted your taper if you just go and have all this time off training and then just do nothing.

Much of what Tyson described in terms of his approach to racing and the situations which created stress for him were explained in telic terms: his ability to predict outcomes, keep his momentum towards his tangible goals, and remain on target. For example:

P: What normally would stress mean to you in a race setting?

T: (pause.) Sort of the worst stress is when something happens, when something doesn't go right for me. You know, for example, in the swim, that bunch getting away from me is not a normal thing. So, yeah, that was pretty stressful.

P: So something out of the ordinary?

T: Yeah, or something like a technical problem. Like your bike has fallen over when you get to it, which would cause a bit of stress. Otherwise, in local races, not being at the front would stress me, because you just, in a local race, as a professional athlete you're meant to be at the front. That's what you've got to do (laughs).

Tyson took a serious approach to racing, and had a strong focus throughout on his performance in relation to others. I felt that Tyson races for the feeling he gets at the end of a successful race, but he does not enjoy anything much in between the hooter and the finishing tape. When things are not going according to plan, generally Tyson's anxiety is high and his hedonic tone is low. His perceived control over what he is experiencing is also low, and he describes being inclined to give up (in part at least), which obviously negatively influences performance. This sense of failure had become pervasive for Tyson, and his anxiety remained high and overwhelming after the race. For example:

> T: By the time I was on [the bike pack] again, I was kind of a bit demoralised about losing the first one. All my work has been to get into that first one. I don't know, I shouldn't have done it, but I just spat the dummy and stopped. It's pretty (pause), yeah, I don't like doing that, but I'm pretty annoyed with myself both for losing and for pulling out.
>
> P: You sound pissed off.
>
> T: Yeah, really angry. But, you know, I can't get anything right at the moment.

Anger was another somatic emotion that Tyson described as being salient and which reversal theory proposes is generated by the telic-negativistic state. In several examples, Tyson described his emotional response to racing below his expectations as anger, which was quickly followed by giving up, either mentally or physically. He also described an experience of being able to use his anger positively as energy:

> P: Are there times when you can recall something going wrong within the race, and you have been able to recover and get back to a balance within the race?
>
> T: Yeah, the first race of last season was a local race. I hadn't raced too much, and I swam particularly poorly and was quite a way out of the back. Pretty much everyone was in front on the bike, people who would never swim past me normally. I was pretty angry about that, but I just fixed it. I just rode so hard, I rode to the front of the race, so (laughs), you know, I guess I fixed that.

Tyson was keenly aware of others when he raced, both competitors and spectators, and he made a number of self-other comparisons. He used terms such as embarrassed, disappointed in himself, and humiliated, and expressed anxiety at looking foolish or disappointing other people. This concern with how he was perceived was pervasive at both the macro (life) and micro (racing) levels, and is described in reversal theory terms as the negative felt transactional outcomes (autic-mastery state). In his descriptions of his race performances, Tyson referenced himself constantly against others, suggesting that a great deal of this attention was on his fellow competitors and his position in the field in relation to them, both when he was losing and doing well. His primary race focus seemed to be about the consistent and exact execution of his plan and the performance of other competitors, neither of which was wholly in his control.

Tyson described being sick of having to explain to others how and why he had raced badly, and how he really wanted to come home and say to others that he had done well. It seemed important to him that other people thought favourably of him, as the following examples highlight:

1. P: You mentioned before about a home crowd, feeling embarrassed if you're not going as well as you'd like to. How does the crowd normally affect you?

   T: If I'm racing well, I don't notice them too much. I hear people call out my name or something like that, but I don't notice too much. I just sort of, your focus is pretty internal I guess. You're just thinking about yourself, whereas if you're not racing so well, you're probably not hurting quite as much. I start to hear what people are saying, and I recognise people in the crowd. I don't like that because I don't like (pause), you almost feel you are disappointing these people who have come down to see you. A lot of them are your friends and things, and that's no good. If I'm putting in the work, I'd like to at least show them what I can do.

2. T: A friend came down to watch me do an open water swim, and she asked if I like having people down to watch the race. And like, in a local race, it's good because it's all pretty relaxed, and I can relax and talk to whoever has come down or whatever. But in a bigger race, it's probably better if it's people I don't know,

because then I don't feel like, not disappointed in my results, more disappointed that I'm not giving them any attention, and I'm just looking after myself.

3. P: That's interesting. You were describing that your mood was really flat and you felt a bit slow and dead and stuff, and then you had some sort of shift, where you thought, "No, I'm actually going to finish." What happened there?

T: Yeah, I don't know, I just thought about it a bit more and thought, well, I'm probably going to feel worse if I don't finish than if I do. Like, it's definitely worse telling someone that you didn't finish than that you did. So, even though I don't like being that far back, I do find it a bit embarrassing, there are two thousand people still there cheering for you when you are coming last, like, that's not a great thing (laughs).

In his descriptions of his third race, which had been a strong performance and a much more positive experience, Tyson expressed the more pleasant emotion of pride in his association and shared effort with a fellow scholarship holder whom he worked strongly with throughout the race. Tyson had a great deal of respect for the other athlete and, alongside feeling deeply relieved at having had a decent race outcome and being able to execute his plan effectively, he also displayed modesty and gratitude, which are reflective of the alloic-mastery state. In evaluating Tyson's descriptions of this race, the difference to his prior, poorer performances was that he was able to execute his plan, with support from another person, and that he said he "didn't sort of have any particular expectations" of the race. There were also glimpses of a reversal into the paratelic state in this final race and an example of Tyson using a paratelic protective frame in managing the attention he paid to the crowd:

P: It's such a big difference from what you were saying last time about feeling embarrassed about the crowd when you weren't performing, when the crowd actually became a negative influence, whereas here you seem to have fed off the energy of the crowd and enjoyed it.

T: Yeah, I did a bit. But also I think, I don't know, I wasn't embarrassed, not that I needed to be because I was winning, but I didn't, there wasn't anything negative

> that could come from the crowd, because in that frame of mind I was just really, really determined. And like, there was nothing they could do.
>
> P: So they couldn't influence you at that point?
>
> T: No, they could have been throwing rotten tomatoes (both laugh) and it wouldn't have mattered.
>
> P: OK, so it's only if you have internally allowed your mood to drop or if you feel like you're not in control that the crowd can then have an influence as well?
>
> T: Yeah, I think so. Mmm. I mean, it all comes from me, it's not anything particular from the crowd. Actually, even when you are coming last, they are really supportive. The same people are still saying the same things. It just doesn't mean the same to me. It feels different.

The passage may be an example of Tyson using a paratelic protective frame to put himself into a safe and untouchable place. If this was the case, his defence mechanisms were successful in the moment, but I think the term *allowed* suggests that Tyson felt he had some control over his mood, which the rest of his examples do not support. If he is in last place, he certainly feels out of control. To an extent, I colluded with him in his delusion that the crowd did not influence him, when I believe that the crowd influenced him greatly.

In terms of the relationship between stress and performance for Tyson, it seems that when anxiety was experienced as overwhelming anger or humiliation, most often it gave rise to a change in his effort and a consequent drop off in performance, which would fit with causal A + B = C models of stress and performance. In reality, it may be more complex. When Tyson's performance is not what he expected, he starts to get anxious or angry, feels out of control, and then his performance worsens. In reversal theory terms, when Tyson's tension-stress became too much, and effort-stress was not recruited to help, his performance suffered. When Tyson perceived he was in control of outcomes or able

to execute a plan, he could maintain his motivation even if hedonic tone was fairly low. For example, Tyson explained:

> T: The difference for me is that I'm in a completely different headspace when I am out at the front of the race. I don't think that I have got the same confidence if I'm just in amongst everyone else. I'm more sort of just going through the motions. My coach said to me yesterday that it is the first time this season he has actually seen me compete, rather than just race. I felt I could dictate, I had a bit more control at the front.

It seemed that once Tyson had negative momentum, he found it difficult to respond in a flexible way or break away from the feeling. When he was in a positive, confident, determined state of mind, the stress of seeing competitors coming up behind him made him "dig in a bit more" (exert effort-stress), yet when he was in a negative frame of mind, similar threatening situations made him want to give up. The stressors may have been the same, but his perception of them and his state-based response to them dictated the experience and outcome.

Our relationship and the research process. As a researcher, my response to Tyson's negativity was a classic example of imposed view. I recall thinking as he was describing his general flat mood and pessimism, "Sure, but would you prefer it to be more fun?" and, "I think if this guy let go a little bit he would get a lot more out of his races". I took my blueprint for a good experience and projected it onto what I was hearing from Tyson. The way Tyson experienced his motivations and emotions is individual, and there is probably more of his motivation and emotion at a core personal level that is not accessible to me as a researcher. My view of races being better if they were more fun would not necessarily translate into better performances. His level of success and continued growth actually suggests that something is working well for him in his motivational approach overall. As he said, "I get disappointed, but the disappointment is

as good a motivation as any." On reflection, my perspective also represented my own paratelic state at certain points in the interview.

My own agenda crept in to the interviews when I found myself trying to encourage Tyson to see that he had extremely high expectations and, relative to my notion of a good athlete that he was doing well. This view met with consternation, deflection and defensiveness. He resisted and let me know that he had no interest in lowering expectations or lessening his emotional investment in racing. For example:

> T: I can't help being particularly emotionally attached to my results, because that's what keeps you going. If I didn't get upset about it, then it almost means you don't care. But I do. That's what it's all about.

My interpretation of this response was that Tyson was letting me know that the low hedonic tone and anxiety he experienced were part of the sport for him, and pitting himself against those challenges was a fundamental part of his motivation. Being seen to win, or at least perform well, was what mattered to him rather than improving the pleasure he felt during a race. For Tyson, it was about the outcome, not the experience.

There were also times when I swapped hats to the role of counselling sport psychologist, and with Tyson more than the other participants, I found this difficult to manage. I wanted to help him negotiate his performance slump and feel less disappointed in himself, possibly because of some of my own countertransference issues, which were about my own identity as an athlete at around the same age as Tyson. I identified a little too closely with Tyson's fear that he was not good enough, his desire to be viewed favourably by others, and I understood a little too well how he could become overwhelmed with shame and embarrassment to the degree that quitting seemed like the best way to relieve the tension. The problem with my countertransference was that it

urged me to protect Tyson from some of the pain that I had experienced, and that I presumed he also experienced. I quickly learned that Tyson would deflect these subtle attempts at help, and I recognised on reflection that my own pushing slowed down the momentum of our conversations and restricted the flow of Tyson's expression. I was trying to re-frame his experiences for him, and I was actively doing interventions and imposing my view, which resulted in me crossing the research / treatment line without informed consent to do so from Tyson. There is no wonder he resisted, I allowed the therapist in me to take over and although I may have perceived my attempts as subtle, they really were not.

Once I saw this problem and was able to pull back, he actually asked me for guidance as a sport psychologist on managing an issue with feeling fear on entering corners at high speed after a recent crash. Tyson brought this concern up once the tape had been switched off after the second interview. I was initially unsure about it and I responded awkwardly. It occurred to me that I had been comfortable to counsel him on my terms, but when he asked me for guidance, I stepped back into the safer, passive researcher's role, which flew in the face of what I valued in the shared experience of qualitative research. My roles were confused, it was becoming messy, and all of a sudden the more distant and impersonal quantitative paradigm seemed appealing again. Yet I wanted it to be useful for him too. I took the opportunity to work through the issue briefly with him, and offered him a referral if needed on my supervisor's recommendation. It was a turning point in our relationship and, as I re-read the transcripts, I note the shift towards Tyson and I being co-investigators of his experience in later conversations, rather than the mis-matched participant / therapist versus the participant / researcher dyad.

Case Study 3

Hayden's Story

Introduction. Hayden is a male, long-course triathlete and ironman competing in Australia and on the international circuit. At the time of interview, he was in his mid-twenties and was a scholarship holder at a State institute of sport in Australia. He had been competing for 8 years, over which time he had graduated to the ironman distances. Typically, he had two big race events per season on the national circuit and several half-ironman races in between. Hayden described a close relationship with his family (particularly with his father), and with several friends outside of the sport. He presented as a sociable, warm yet serious person.

Hayden seemed to identify strongly with the role of athlete. His emotional responses to injury were strong, and he used language describing his athletic career such as "it's my whole life" and "it means so much to me." Perhaps because of the amount and intensity of training for only two main events through a whole season, Hayden seemed to invest a great deal emotionally in the outcomes of his performance, although for most of the time we spent talking, he was fairly dismissive of his feelings, preferring to discuss his thoughts. The following example illustrates his emotional investment:

> H: When you are racing ironman you tend to put all your eggs in one basket, and for me, if I have a great race at [venue], it will be the best season ever, and if I have a terrible race at [same venue], it will be the disaster for me. In a way it is the be-all-and-end-all of my whole year, really. So I'm already a bit worried about it and stuff, but that's normal. You race your best when you're a bit nervous and stuff.

Hayden had opposing emotional experiences in the two races he described. In the first, he had performed above his expectations, and he was happy and optimistic about his future. In the second, to use his vernacular, he had "had a shocker," which ruled him out

for the benchmark Hawaiian Ironman. When he spoke about the latter race, however, he presented as if he had maintained his optimism and perspective on the whole, regardless of his disappointment:

> P: In that disappointment you describe, did you ever consider your future as an athlete?
>
> H: (pause.) No, never, which is good. Everyone around me seems pretty positive and stuff, and I always had overseas in mind, which is good. [I'm just] Just disappointed about Hawaii, because I was really set on going this year. It would have been, I mean even if I had a really fantastic race, I might not have qualified, but I was thinking to myself it could happen.
>
> P: Mmm, that it was a possibility.
>
> H: Yep, a possibility. Other years I can do it. And there are other ironman races leading up to Hawaii this year that I could do and try and get a spot for it. And I'm sure I could get a spot from them, they are a lot easier to qualify in, but I have sort of let it go for this year. It would mean doing three ironmen in six months, which is too much. I'd like to do it, and I was thinking about it after the race. But once I had settled down a bit, I pretty much decided to leave it this year and concentrate on the half.
>
> P: Kind of sounds like you have more of a long-term view of your racing?
>
> H: Yeah. Oh, well my coach does. I don't always have. I train just as hard as the guys who are winning these races, so you want it now, sort of thing. It's very hard to say, "Oh, I'll wait, and then in 5 years time I'll be OK," sort of thing. I just need to be patient.

Other people were a prominent feature of Hayden's stories, and I would suggest, of Hayden's life generally. He often referenced himself in relation to others and in particular, to authority figures such as his coach, his father, and other more senior athletes. I noted many times that it mattered to Hayden how others viewed him, and that such opinions could be a source of pride or shame and anxiety for him.

Hayden viewed his athletic career as a journey. When we spoke, despite his frustration and angst in some race circumstances, he was able to see the incremental gain

in his performances, and to derive a measure of satisfaction and motivation. He describes reflecting on his career:

> H: I was just sort of on the plane last night thinking about it. I was with my Dad coming home and thinking, wow, you know, it's been 8 years. Most of the other guys I race against have come from sort of top level in one of the disciplines, whereas I've just, I suppose, just persisted. I don't think I have sort of much natural talent, really, but I've just sort of worked pretty hard at it and, yeah, slowly it's just getting better and better.
>
> P: It's paying off?
>
> H: Yeah, yeah.
>
> P: I think there are those who might argue about your natural talent.
>
> H: Oh, yeah, I don't know (smiles). But it's just been really gradual. Sort of improved a little bit every year and stuff.

Despite his comment that he felt his career was getting better and better, I sensed an underlying impatience and uneasiness that suggested he was holding on tightly to each inch of progress he made, and things were really not moving at the pace he desired. There was nothing relaxed about Hayden's approach to Ironman.

More than any other athlete I interviewed for this study, Hayden's descriptions of his race experiences showed numerous shifts in his mood and emotion throughout his performances. The richness of his examples may be due, in part, to his level of awareness and his ability to recollect his experiences in detail. It may also be associated with the much longer duration of his races (on average 9 hours). There were a couple of occasions where I felt like he was describing a junction at which he predicted or pre-empted what would happen psychologically for him during his performance (in terms of thoughts at least). For example:

1. P: That means you get to wear a wetsuit, right?

H: Yep, you get to wear a wetsuit, which is a huge advantage for me, because I'm not such a strong swimmer. And they were deciding all day Saturday and made their last decision first thing Sunday morning whether it would be wetsuits or not. And it was, and that gave me a huge sort of lift before the race even started. I was thinking, "OK, this is awesome, you know, that will help me out heaps." Whereas if it had gone the other way, I might have thought, "Oh, I'm going to be too far behind out of the swim."

2. P: Are you an athlete who pays much attention to the other people in the race?

H: I am, which I think I shouldn't, sometimes. I tend to always look at the start list before the race, and sometimes I think, "I can beat him, I can't beat him," which is probably not the best. I should probably be thinking I can beat any of these guys.

Hayden paid a lot of attention to his kinaesthetic experiences in a race. At times the evaluation of the way he felt physically (for example in the first minute or so of the swim, or coming off the bike into transition) seemed to colour his expectations over his general performance, as the following quotes highlight:

P: OK, so, the whistle goes, you're in the water, how are you feeling in the swim?

H: I felt really good at the start. You can normally, I can tell within 30 seconds how I'm going to race.

P: Really?

H: Yeah, how my arms feel and stuff.… The swim will be really important, and I will be putting a bit of pressure on myself as far as swimming well. So if I get in there and I'm not feeling good at the start of the swim, bit of a worry. It's a long swim.

My intention had been to find out how he was feeling emotionally, and he responded by describing what was happening physically. He talked about the importance of the swim, and the pressure he would put on himself, and I got the impression that there was a degree of emotional volatility, even though he did not use feeling descriptors. From his body language and his deflection away from talking about the emotional content of his performances, I made an assumption that he was less comfortable talking about what

he felt, and I colluded with him to avoid talking about his emotions at this early stage, consequently missing some good opportunities to probe further and explore the phenomena of his experiences.

Hayden seemed to have a great deal of awareness of himself in some respects, but it may be fair to say that, in respect of his preferred approach to managing stress, he did not always achieve the control he wanted. As he got into the interviews, he described feeling anxious often, and he was able to identify aspects of his mental approach to his sport over which he would like to achieve greater control. Despite his stated desire to improve his mental approach, Hayden did show examples of effective coping.

Stress and coping. Hayden's recollections were replete with examples of stress, both within his races and in terms of his athletic career generally. He described a run of events the previous year that had left him distressed, de-motivated, and perhaps even depressed, and also some of he ways that he attempted to manage stress:

> H: Well, I had a shocking year last year (the season sort of starts in November for me). I did a race in November, and I had two flat tyres.
>
> P: In the one race?
>
> H: Yeah, and then the next race I had a broken spoke in my front wheel, which meant I didn't finish either. Then the race after that I went the wrong way on the run course. I'd never not finished a race before in 8 years, and then I had three DNFs [did not finish] in a row, so (pause), it was just, I was just pretty over it before Christmas.
>
> P: Mmm. What changed?
>
> H: Ah, I decided to take 2 weeks off. I went away for 2 weeks. I went up to [destination]. I didn't take my bike. I haven't been away without my bike for, oh, 5 or 6 years, or something. So I didn't take that, and just sort of did nothing really. Just went out a bit, and I ran every day, but one session a day, that's fine, that was pretty easy for me and stuff. And, yeah, just mentally it was just exactly what I needed.

P: OK.

H: And I had, I mean that was just the races last year, and before that I had a stress fracture in winter and back problems that were going on for months and months. So it was just one thing after another for eight months. It's kind of good to turn over to 2004 and get a new start.

P: How did you cope with all that? I mean you just had a really bad streak of luck as well as your injuries and stuff.

H: Aah, the injuries really started to get to me after a while and I didn't cope very well. You know, I just thought they'd go away after a while and they didn't. My back problem was just lingering around forever, and nobody seemed to be able to fix it and stuff. Then I finally got it right and I started doing these races and going bad and stuff. I wasn't enjoying it at all. I wasn't motivated to get up in the mornings and stuff, which was a pretty new experience for me, because my motivation has been one thing that has always been there.

This conversation drew my attention to the level of investment Hayden had in his identity as an athlete. It was really not OK with him to behave in ways that he felt did not support his identity as an athlete. He spoke about a level of stress over the previous year that sounded like he was at risk of burn-out, and yet he continued to train (perhaps overtrain). He was carrying painful and debilitating injuries that were a major source of stress to him, yet the injuries were not as intolerable as not being able to train or perform. When he decided to rest, the rest was largely emotional, from the anxiety of being unable to be a fully functioning athlete, rather than a physical rest, and he still ran at least 10 kilometres each day during his break. I was left with the impression that he was prepared to put his body through whatever he needed to, as long as he could perform. The question in my mind was 'who are you performing for?' I wish I had asked it.

Hayden was able to describe feelings of pre-race anxiety and how he managed them:

P: How do you normally feel on the start line?

H: Normally, yeah, I only do two or three really big races which, as I said, I normally get nervous for. The other ones I'm fine, just mucking around. It's more a sort of hard training session, really.

P: That's what it feels like, a hard training session?

H: Yeah, but for these major few it sort of differs all the time. Probably the biggest race I've ever done was the ironman in Brazil last year. I actually brought over a friend with me, to come over, a professional footy player, and he knows nothing about triathlons. And that was the best thing, because he didn't talk about triathlons. He didn't ask me about it. I just sort of did my own thing leading up to it during the week. I didn't know anyone over there, so I just felt no pressure, sort of thing. I'm kind of doing the same thing for the ironman in April. I'm taking up a couple of friends who are not involved in the sport, so, you know. Race morning, I seem to be OK. It's the days leading up to it I get pretty nervous. I don't know if I waste a lot of energy thinking about it and stuff.

P: So does that mean you prefer to be distracted from thinking about it beforehand?

H: Yeah, definitely.

After his second race, I asked Hayden about whether this strategy had proved useful to him again:

P: You were talking about getting a bit edgy or anxious before the races, and something that had worked for you was to take a person who knew nothing about triathlon, and you could just hang out and not talk about it. I was wondering if you did anything similar this time?

H: Erm, no, I didn't. I didn't have anyone to bring this time. I was just with family. They talked about it a lot, and it was a totally different experience to last time.

P: Was that influential?

H: It's hard to tell what I was like before the race. I thought I'd be a lot more nervous than I was. No, I think I was pretty nervous, I lie (both laugh). I was pretty edgy and stuff. Everyone was there. My sponsors, my friends, family, everyone I knew. There was a lot more pressure than Brazil, where I was just with my mate and my dad. Maybe it had a bit more influence than I thought.

P: You mentioned last time that you kind of liked the time out from it, from people coming up.

H: Exactly. I guess there are always things to look at for the next race. That might be one of them.

I noted that Hayden seemed to intuitively know what felt good, or felt right, for him in terms of his psychological preparation, but there was a lack of structure around managing the experiences. It was as if he considered that he might feel bad or find something hard to deal with, and then he just waited to see if that was what happened. His approach was random, and almost fatalistic, which was in stark comparison to the detailed planning and preparation that went into other aspects of his racing.

Within the race situation, Hayden recounted examples of stressful situations, and his responses, some more successful than others:

P: Are there any times where you can recall not coping when a problem arises?

H: Yes. The [venue] half-ironman in November, when I was in a really good position when I came out of the water. I'd had a great swim. I came out of the water first and moved up and was just about to catch the leader on the bike (this was only about 15k into the bike), and I thought I had a good chance of winning the race overall. Then my spoke broke on my front wheel. And I've never really had anything mechanical go wrong with my bike before that I haven't been able to fix. Like, I've had punctures before, but you jump off and fix that, and you can get back into it, but, erm, I'd never had anything like this before, where I didn't know what to do. Like, I didn't want to pull out of the race, but sort of jumped off and all these guys were going past me that I had a big lead on and stuff. I sort of panicked and I didn't know what to do. I started trying to pull the spoke out and it wasn't coming out, and I was kicking my bike (laughs, pause). It took me a few minutes to sort of calm down and think, you know, "What am I going to do?" I managed to wrap the spoke around some of the other spokes and I got back on the bike, but mentally I just, I don't know. I was still going as hard as I could, but mentally I didn't want to be there any more.

P: Right.

H: And, erm, at about 50k another spoke broke. I was kind of almost glad that I was finishing, because the wheel was stuffed after that. And, yeah, like it's hard to explain, but I was really annoyed, but somehow I was kind of glad, because I was so far off the pace. I wouldn't have got anywhere anyway.

Hayden's emotional response was dramatic and overwhelming. His anxiety had debilitated or even incapacitated him to the point where he was unable to think. This example fits nicely into Hardy and Fazey's (1996) catastrophe model, which suggests that performance drops off after the peak of anxiety, and it is extremely difficult to recapture an optimal state of arousal within the same performance. Even though he was able to continue, until his second spoke broke, he had motivationally disconnected from the race. In reversal theory terms, after the catastrophe, Hayden's unpleasant emotional experience, which may have included humiliation, frustration, shame, confusion, anger and resentment, gave way to a form of relief. Through a condition of frustration, he had reversed from the telic conformist state into the paratelic negativistic state when his first spoke broke. As he was forced to pull out (contingent events), within the autic-sympathy state he shifted from the unpleasant emotion of resentment to the more pleasant emotion of gratitude that he was able to discontinue his efforts.

In another example, Hayden recollects a painful and stressful race situation when he suffered with stomach cramps. As a result, he took in less nutrition and was less hydrated than he needed to be to physically cope with the demands of the race:

> H: At about 170k, just coming back into town, erm, with a few kilometres to go, I got out of the seat, pulled up on the pedals, and after a while both of my legs started cramping. And I thought, "Oh no, that's the worst thing that can happen, you have got a marathon to run afterwards." So I started to panic a bit then. I felt sick after that when I got off the bike and, yeah, right from the word go when I started running, my goal was to get off in 5 hours 50 on the bike, and I got off in 5.48, so my time was right on, ahead of target. I just knew straight away I was in trouble. My legs just didn't feel right. One of the guys just watching said I looked a bit pale, and I felt dehydrated and stuff. And if you feel like that it's probably too late. I had a target pace for the whole run, and I held onto it until about the 10k mark, erm, but to hold that pace just took a lot out of me for the first half, just holding the pace. I got to 16k and I just lost it. I started walking. And (pause), I just started walking. I just jogged and walked through the drink stations that were every 2k. I tried to get sugar and stuff to get me going. I sort of came through a

> little bit and started jogging. I thought to myself, "Well, try and run to each drink station, like 2k at a time. Then stop there and have a drink." And I did that, and for the first part of the run, about 21k into it, (my big goal for the race was to finish top ten, and I was still in 15th at the 20k mark). I kind of thought, "I'm in a bit of trouble here, but I'm still in a good position," sort of thing, and I ended up going again. Then, within the space of about 4k, about fifteen people passed me, I was running so slowly. Once I got to that point, which was about 25k, position-wise my whole goal and plan was out of the door, and the major thing that keeps me going in a race like that is the end goal.
>
> P: Your outcome
>
> H: Yeah, your goals and stuff, and when that's gone, it's very, very difficult to keep going.

Hayden described a building anxiety and potentially vain attempts to cope by chunking down each stage of his race into short-term goals. He was clinging to each small achievement as reinforcement and motivation to keep moving. There was a flavour of sheer desperation in his story. He spoke about his awareness of other people watching him, and wanting to finish because he was in public view:

> H: When you are winning, or where you want to be, nothing seems to hurt, like in [venue]. But, yeah, it almost became survival mode, just getting to the finish line.
>
> P: Yes.
>
> H: Like, "How hard was that 27k? How the hell am I going to last another 15k?" Then I thought, "Well, I won't be anywhere near where I wanted to finish and my time is totally out of the window," but I had heaps of people out there watching me and I thought, "Just finish," sort of thing.

I sat back and thought to myself that Hayden would drive himself into the ground, "just surviving," in great pain, rather than suffer the humiliation and deeper anxiety that quitting would create.

Hayden's example shows that his initial responses to stress, as well as his efforts and the psychological adjustments he made in order to cope, were effective in the end, as he did finish the race. His performance, if measured in time or position, was below

expectations, but if measured in effort and ability to persist in the face of adversity and not become overwhelmed, his performance was successful. The questions I have ruminated on as I have considered Hayden's stories are about the cost of success. At what expense, does he avoid the greater anxiety of failing to perform?

Hayden used different strategies pre-event and within event to cope with stress. He expressed a preference to be distracted and not actively think about the coming race in the days leading up to an event. In the races, he described having an active coping style, where he monitored, made critical assessments and decisions, and chose courses of action. His coping style was specific to his thoughts and behaviours, however, and not the management of his feelings. For example:

> H: I had all my food strapped onto my bike, and as soon as I got onto my bike it all fell off!
>
> P: Aaahhh! (Both laugh.) Not ideal.
>
> H: This is not ideal, no. I had sort of four gels that I take and three fell off, so I only had one. [They fell off] straight away on the ground (both sigh). So I had to change things around. Normally I drink about 2.5 bottles of drink during the ride, and I had four yesterday, I made sure I drunk a lot more.
>
> P: So that's how you approached the problem, "What do I need to change?"
>
> H: Yeah, "OK, I don't have any of the stuff I need for my nutrition during the race, what do I do now?" sort of thing. And I was thinking Dad could pass me something on the bike. But you can get disqualified for that. You can do it pretty subtly and get away with it. But I was riding with a group of guys and if any of them saw, like, you know. Nothing major, but you can get disqualified for it. So I thought, "No, not going to do that, what else can I do?"

This example, among others in Hayden's stories, highlights a telic-conformity state in reversal theory terms. He was motivated to *do the right thing*, and this display of his motivation added weight to the evidence already presented that it was fundamentally important to Hayden that he was seen (by significant others or those in authority) in a

positive light. His comment that bending the rules would be "nothing major," therefore, did not fit. It seemed more likely that he was playing down his response in front of me, because he was not so comfortable discussing emotion, and being disqualified would have undoubtedly given rise to strong emotions for Hayden.

Metamotivational states and dominance. Hayden gave descriptions of his approach and his preferences that strongly suggested a telic dominance. He used language such as planning, pacing, goal-setting, and monitoring, tactics, assessment and caution. In addition to the examples already mentioned, there were the following:

1. H: I pretty much know where everyone is during the race. I know who is up ahead and who is behind, you know, I am always trying to see how they are feeling, and using every trick in the book to sort of suss out what they are going through in the race and stuff.

   P: And you mentioned focusing on how you are feeling [physically].

   H: How I'm feeling, how much time, if I'm gaining on them, if I'm losing time. Yeah, I like to know everything that is happening during the race. I don't tend to think too far ahead. I've done that before and it doesn't work for me. I've led a lot of races before and then half way through the run start thinking about the finish, and start thinking about things that I shouldn't be thinking about at that moment. I really try and just basically think about the next step I'm going to take, or the next couple of metres on the ride and, yeah. For me, it's not good to get too far ahead of myself. You lose track. There are so many things in long course racing that you need to be thinking about. Like your nutrition, your pacing, your heart rate, that sort of stuff. And if you start thinking too far down the track, you lose concentration on what you should be doing at that moment.

2. H: A lot of people who don't do the sport say to me, "What do you think about if you are out there for nine hours, like, aren't you bored?" It just goes so quickly, because you have got so many things running through your head about your competitors, your own sort of, how you feel, food, drink, that stuff.

It seems unlikely that Hayden could get bored while racing because of the level of psychological investment he has in his performances. Boredom and anxiety are an

unlikely, if not impossible coupling (impossible according to the reversal theory paradigm), and for Hayden, each moment has so much meaning.

Other examples of his telic dominance include the following:

1. H: I suppose I don't know the word for it, but it all went exactly to plan. Like, everything that I set out in the weeks leading up just sort of fell into place

   P: Sort of flowed?

   H: Yeah, don't really know how to describe it. But I came out of the swim where I wanted, I held the heart rate I needed on the ride and I ran really well. So that was the plan and it all sort of unfolded, I suppose.

3. H: I actually work off my watch quite a lot, as far as pacing goes and stuff. But some of the guys don't have a watch, and they try and judge by how they are feeling, how their body feels, you know.

   P: And does that sound like an appealing thing to you?

   H: Erm, it does and it doesn't. It does in the fact that it might sort of make my mind active, but because I work quite a lot off, like most people, on seeing how far I have to go and setting goals.

   P: You need some assessment of that?

   H: Yeah, so for me, it would be a long day if I didn't know how I was going the whole way. Whereas I work, like, 10k mark on the bike, I have to have gone through in 17.5 minutes or 16 minutes, for example, so knowing that time kind of fixes a goal along the way. It's helpful, I don't know if I could do it without a watch.

When I listened to Hayden speak about his constant vigilance and attention to detail over a 9-hour race, I felt exhausted and it seemed stressful. The response it elicited in me was probably because I was very much in the paratelic state while I was with Hayden. I was excited and stimulated by this story and engaged in the moment myself, I wanted to hear more of the *good stuff*, the dramas, the saline drips and dehydration, and crawling around in the gutter. The idea of constant clock watching felt unpleasant, or even boring, to me in the paratelic state.

There were times through the interviews where Hayden described what seemed like a reversal into the paratelic state in response to stressful situations:

> H: It's funny, I thought I'd be a lot more nervous than I was, because I just really wanted to have a good race. You know, the pressure was on, that I was putting on myself, just because I hadn't had any results for the whole year. So I thought I'd be really nervous, but I got on the start line and I was almost, it sounds stupid, but it was almost as if I thought, "Oh, I don't care what happens, like, just, you know, let's just start and see what happens," sort of thing.

In this situation, the reversal as a means of coping was effective. He avoided being potentially overwhelmed by his anxiety and had a successful performance. I doubt, however, that he did not care about what happened, rather he cared so much that the stress was becoming intolerable and he needed some relief, hence the reversal into his opposite state.

Hayden also described feelings of determination, and aggression or hunger, that I cannot adequately categorise using a reversal theory lexicon, although aspects of what he described suggest a paratelic protective frame, where he felt unstoppable and excited, yet there was also modesty and vulnerability in his mood, and he remained outcome focused:

> H: The wheels really fell off at about the 16k mark of the run, and my legs were just feeling so heavy. Dad was sort of giving me splits of how far back the next guy was and he was telling me that I was in 5th. At one point I sort of said in my head, "Top 5? There is no way anyone is going to pass me." There was a turn around with sort of 3-4k to go, and I turned around thinking, "Please don't let me see anyone when I turn," and I turned and, yeah, I was running and I didn't see anyone for about 30 seconds, so I knew I had about a minute on the guy behind me. And, yeah, painful as it was, once you get there, I was running on adrenaline, it wasn't too bad. But at the end I was in all sorts (including a stint on an intravenous saline drip).

Paratelic protective frames have the potential to create a sense of detachment from reality (and detachment from real pain and distress), which may present ethical challenges for some applied sport psychologists. Athletes like Hayden strive to push

beyond their limits and to get the very best out of themselves in performance terms, but limits are not necessarily a bad thing in terms of avoiding harm. I question whether it is desirable to detach from reality psychologically and dwell in the realm of parapathic emotions (unpleasant emotions experienced as pleasant), particularly for someone who is so willing to punish themselves anyway (several parts of Hayden's story are about his ability to push himself harder when he is already in dire straits, which has a pathological feel to it).

A phenomenon I initially noticed in Hayden's story was his ability to seemingly hold off a reversal out of his preferred state. On closer reflection, it may be that he was able to induce a reversal back into his preferred telic state. He did show evidence of rapid and involuntary reversals:

1. H: You are really on a rollercoaster the whole way, like you go through highs where you feel, "This is going well, I feel so good," and it can be like that (snaps his fingers), two minutes later and you can go into a bit of a bad patch for some reason and get negative and think, "Oh! I can't do this," and that sort of stuff. Or you are just up and down, up and down. But those are the best guys, I mean, anyone can go well when you are feeling good, but the best guys are the ones who can make the best of it when they are feeling bad.

2. P: I was interested in what you were saying before about the rollercoaster, feeling up and down, with only a couple of minutes between feeling good and everything is solid, and then a change to feeling bad. Do you mean a change in an emotional sense?

   H: Oh yes, emotional more than anything. I mean the physical stuff can contribute, if your legs just suddenly feel heavy and you start cramping, as happened at 170k. But five minutes earlier, I was on top of the world in terms of my time, on the bike, I was where I wanted to be. Then I got out of the seat and my legs hurt. I went from happy to panicking, thinking, "Oh shit, I'm in trouble." So the physical side can contribute, but even the mental side of things. I know my major downfall is thinking too far ahead. I mean, the enormity of the event can sometimes really de-motivate me, seems too much.

This passage gave a rare example of Hayden directly expressing his feelings (rather than his thoughts) in relation to his performance. He showed his vulnerability and anxiety clearly. Unlike the early examples, where I colluded with him to stay in his comfort zone, I had built enough rapport and trust with him, and felt comfortable enough myself, to ask directly about his emotions.

At other times he seemed to be able to maintain equilibrium. This may suggest that his stress or frustration levels were not formidable enough to induce a reversal on these occasions, or that he was able to control his emotional experience. For example, the following transcript is taken from Hayden's description of the first race we discussed, in which he performed really well. At the start of that race, he described a "let's just see what happens" approach. Later in the race, he moved to a telic, monitoring style:

> H: I really watched my heart rate on the ride, tried to do as little as possible. Like, with the group I was riding with, I just sat at the back and watched them all sort of hammering themselves. Just tried to relax and keep my heart rate down, and do all the right things, [and] the ride was pretty uneventful. I really sort of wanted to go, because it felt quite easy, I was getting toey. But I held back as much as I could.

At other times, Hayden described a kind of acceptance of position when he was doing less well than he desired. This acceptance could be considered to be a reversal into telic-negativism and the associated emotion of placidity, although the descriptor does not quite fit, it seemed more like a resignation and depressed affect. The resignation could be considered a means of reducing tension or anxiety. If the meaning of the situation is lessened, the associated stress is lessened. The following passages give examples of Hayden's reversal into and out of resignation:

1. H: I wasn't going too hard and I'm thinking, "This is good, they haven't caught me," and then a group of four of them all caught me. They ran past me and I probably got a little bit negative then. I was thinking, "Ah well, these guys are better runners, they are going to go past me." The four of them ran past me and I

sort of sat in behind them for a bit. Then I sort of thought that they weren't running that quickly, really. So I sat in for about 2k, running with them, sort of listening to them breathing a bit and stuff, and trying to see how they were feeling. And none of them really looked very good. So I sort of pulled up near the front and started chatting away to them (both laugh), which is a bit of a mental sort of thing. None of them really said much back, which was kind of good. So we got to a hill and I just went.

2. H: I don't know about other guys, but I'm definitely someone who works off confidence a lot. And I probably do get a bit too negative in races sometimes, when I'm not going well.

P: What happens then?

H: Oh, just like, I know myself, I think, ah, if I'm not feeling good and guys pass me, I think, "Oh, it's only one more spot," or something, which is the worst thing you can think. When someone passes you, you should try and still be confident that you can run with them or get them later or something, but I tend to sort of (I'm working on it), I tend to relax a bit and think, you know, "He's a better runner than me, I won't be able to get him."

P: It sounds like you kind of accept the situation.

H: Yeah, I do. And on the other end of the scale, when I'm going well, when your confidence gets up, whether it be one race after another or within a race, when I'm getting better and better, I just go faster and faster.

Hayden often spoke about confidence as something which he should be in control of, and which he felt he could plan for (if he had a can of confidence on the bike along with his gel shots, he would be fine), He made loose associations between confidence and his emotional response to success or failure during races.

Hayden seemed to be most often in a mastery state, and he moved readily between alloic and autic mastery. After his "shocker" race, he described speaking to the race winner, who had said he also had some terrible times out there, when he felt like stopping but just did not. Hayden expressed pride in himself that he completed the race under such duress, and modesty at the comparison to one of the sport's elite. In another story, Hayden described the relationship he had with another competitor in the toughest part of

the race. He added this element of the story without prompting from me, which added to my view that he referenced himself against others a lot:

> H: And another thing that happened, I was running with a guy from [destination] that I know at about the 35k mark, I caught him about the 35k mark, which is probably the only person I caught (laughs), but we sort of ran together, helping each other along. We were doing the same thing and sort of stopping at the drinks stations, and thinking that 2k was just so far to get to the next one. He said to me, "OK, Hayden, we are going to get through this one and stop at the next one". And I just remember thinking, "Aahhh! It's impossible!"
>
> P: It sounds like you were feeling very sort of supportive to each other?
>
> H: Oh we were, totally. Yeah, we stayed together for the last sort of 20k, and I really don't know if I could have got through it without him, and I think he said the same thing. We both went through stages where, like at one point, I was going to stop. I had my head down and I was in the gutter, thinking, "I can't do this,"[I was] just rock bottom. And he grabbed me by the shirt and just made me keep running. We really helped each other along the way. When we got to the finish, we ran across the line together.

Our relationship and the research process. As I sat listening to Hayden's stories, I was aware of more positive countertransference than I had felt with any other athlete in the study. His stories were so gut-wrenching, and I regularly wanted to say, "you are unbelievable." Often I was in a paratelic state myself through the discussions, because I felt inspired and excited by the struggle he had with himself to get to the line. As I re-read the transcripts, I could see my empathy for his pain and my willingness to congratulate his successes littering the text. I felt like I wanted more of the story and I was disappointed when the race ended, like the last page of a good book. In short, I was impressed by him and I showed him this through my interest, my language, and my facial expressions: I put Hayden on a pedestal. When I read the transcripts later, in a telic state, and with a therapist's hat on, I also saw examples of self-punishment, despair, strong anxiety, a powerful need to be viewed favourably by others, and potentially injurious acts

of ‘courage’ in pursuit of success, perhaps because failure was more intolerable than pain. It has made me consider my view of the sporting hero, the behaviours and characteristics I have glamorised in an athlete such as the willingness to put one’s body on the line at all costs, and that sometimes, sport can be a sanctioned playground for pathology and self-harm.

Another result of my engagement with Hayden’s stories was that I did not generally analyse the information he was presenting me with during the interview. I did not find myself categorising thematically or thinking in reversal theory terms as much as with other athletes. I did better at being an observer and letting the themes arise than in other cases. In comparison to other participants, I did not experience much inclination to counsel Hayden, or to be the applied sport psychologist in the relationship. On one occasion that I did wander into the territory of re-framing his experiences according to my world view, and as with other participants, I got a subtle push back:

> P: You know, listening to you sounds so much like the pieces of a puzzle coming together with experience.
>
> H: Yeah, it is.
>
> P: The more you race, the more you understand about yourself, mentally, physically, in terms of your nutrition.
>
> H: It is, and maybe that’s why the older guys do better, when they are in their 30s and stuff, when they have done a few, well, quite a lot already, or they are a bit more mature.
>
> P: They have been through it already, they know what to expect, I guess.
>
> H: Yes.
>
> P: So your level of achievement, your level of attainment in that field is phenomenal really.
>
> H: Oh yeah, I suppose.

P: There are not many peers at your age, right?

H: No, not many guys doing it at my age, but I look at the time I did, not the age. That doesn't matter. That's the way I look at it.

Case Study 4

Jamie's Story

Introduction. Jamie was the fourth athlete of the group I met with to talk about their competitive lives and their responses to stress in race settings. As with the other athletes, Jamie was a scholarship holder at a State sporting institute and had experience racing competitively, both nationally in Australia and internationally in Europe and North America. At the time of interview, he was in his early twenties and lived at home with his parents in between stints of racing overseas.

Jamie presented as an open, warm, and friendly person. He leaned across the table, kept his body language open and made eye contact readily when we conversed. His spoken language was colloquial and at times colourful, and seemed to ooze energy and enthusiasm, enough to amuse me on several occasions. There was a casualness and easiness in his manner and, after thirty minutes or so, I felt like there was a level of intimacy and trust between us. He was quick to shorten my name and speak to me conversationally and personally as well as in response to my interview questions. He seemed unconcerned with the world's opinion of him at large, and seemed confident and unguarded in his descriptions of himself, his approach to racing, and his responses to stressors.

Jamie showed a solid knowledge of his sport technically and in terms of his personal preparation. He spoke on a couple of occasions about the rules, and showed a degree of concern that he follow them appropriately (illustrating the conformist in the negativistic-conformity state in reversal theory terms). He took his career as an athlete seriously, despite his general playfulness, and described himself as "very competitive,"

suggesting that there was only one outcome he was interested in on the day and that was to win. When things did not go his way within a race, he made swift causal attributions, both internal and external to himself, and suggested that whatever circumstances arose in a race (such as poor weather on one occasion, where it was a non-wetsuit swim in cold conditions) had happened to everyone, and so the playing field was still level and competition was fair.

Jamie spoke about stressors or stressful circumstances factually and without remorse or excuse, for example:

> P: So how did your race go?
>
> J: Yeah, it was alright. Good, considering. It was a good swim and a good bike, and then my legs were just so heavy on the run, really heavy. Not that it's an excuse.

He seemed keen to acknowledge that success would come through effort rather than luck, and thus he remained optimistic that he would be successful because he was willing and able to put in as much effort as required.

Jamie's descriptions of his start in the sport give a flavour of his matter-of-fact style:

> J: I used to play tennis, and then I came across triathlon through swimming and running for school, and one of the teachers said, "Have a go at triathlon." So I did that. I had a great time, and as a junior did sort of one a year for two or three years. Then I started doing full seasons because I liked it a lot more, and just continued since.
>
> P: So you did it through school, mostly?
>
> J: Yeah, in the beginning. The first few years were pretty cruisey, [I did] one a year, because it was fun. I already ran and swam, so I was fit with that.
>
> P: Yeah, so you just needed to pick up the bike?

> J: I rode every now and again. And then I had a paper round, so I had to ride the bike everywhere on that.
>
> P: Fastest paper round in town.
>
> J: (both laugh.) No, it was pretty hilly, actually, so, it was good, I got strong.

Jamie certainly displayed ambition and eagerness in his approach to his racing, but also a degree of comfort with where he was currently, and composure and optimism around what was next for him. In part, this relaxed approach may have come from his previous experience of competing and knowing what it would take to improve, but he also seemed more comfortable with having less structure around his career progression than other participants in the study. I felt, at times, that Jamie was focused on what output he needed to achieve and maintain, rather than where he stood in comparison to others or in relation to ultimate (Olympic) success. The following quote highlights the balance between his short-term (current) and longer-term outlook. I introduced the term *goal* and he responded to that, so referring to goals specifically was not necessarily representative of the way he might have talked about what was next for him:

> J: The goal up until where I'm at now was to fix my run, because that was always my weak leg. Pretty much done that, to a degree. Well, enough to be happy and comfortable with where it's at. It was always down, and now it has come up to a point where it's a lot more competitive. I can get off the bike in a bunch, and maybe the pure runner will beat me, but not too many of the other guys will. I can be really comfortable there. Now just a matter of getting my bike back up, just lifted back up a little along with the swim. And then the idea is to go to France and race really well, and earn some money for the first time. Well, earn some good money for the first time. Make some good contacts, have a lot of fun and come home, erm, see how I race off that. Hopefully, I'll be even faster from racing all winter competitively. And I think the long-term goal is maybe Commonwealth Games in 2006, that is sort of where I'm at. I can get some points overseas and some IT [International Triathlon] ratings, and head for that.

Jamie's demeanour and responses overall suggested a relaxed, outwardly happy person with an active coping style and a flexible yet ambitious approach.

Stress and coping. Jamie did not express any strong feelings of tension-stress during the races that we evaluated. Some of his responses suggest that possibly he sees stress as a controllable factor, for example:

> P: What would you say stress or pressure normally means to you in a race?
>
> J: In a race? Stress. (pause.)
>
> P: It's a word that means different things to everybody. I mean what stresses you in a race?
>
> J: (long pause.) Stress to me is when you are worrying a lot, I guess.
>
> P: When you are thinking too much? Is that what you mean by worrying a lot?
>
> J: Yeah, or like (long pause), stress is worrying. I guess if you can see the race slipping away, you get stressed. It's probably, to a degree, short-lived. So you might, maybe for the first 3k on the bike I was sort of stressed, because I wanted to get across, but once you realise where you're at, you have to relax and go on to do what you can.

I think the more likely interpretation here is that stress really is not a big deal for Jamie, yet in my questions I was specifically pushing a *stress agenda*. The result was that Jamie moved into hypothetical thinking about what stress might feel like, and he used second person (you) language because it was not his experience. In contrast to his clear and concrete style when he is describing other experiences, he used 'sort of,' which suggests that my notions of stress did not particularly resonate with him, but he was trying to be a compliant and helpful participant for me.

I noted in Jamie's story is that he seemed to have the ability (in the races we considered, at least) to interpret events in a way that allowed the experience of them to be manageable or even pleasant. He was much more focused on his behaviours than on his feelings. Some examples he gave demonstrated how he made attributions and

assessments that reflected his control over his mood and ability to stay on task, as follows:

1. P: The point on the run where you thought, “oh yeah, I can hold this, but it’s not going to be flat stick” - anything happening with your mood there?

   J: (long pause.) In the warm up, I had kind of felt heavy, and that’s why I was kind of surprised with the swim and the ride. More so the ride, I guess, the swim is more your arms, but the ride felt so easy, and I thought, “whoa! (laughs), what is going on here, I’ve come through, maybe I did rest up enough.” But when I hit the run and ran out the first few hundred metres, I could just feel it. And I thought, “OK, heavy legs.” And not that I gave up, but the first kilometre in I went into, not damage control, but sort of, OK, back off a little, try not to go too hard because you’ll do too much damage, and just hold a steady pace for the next two or three hundred metres. And the other two had gone off the front. Normally, they are really quick, but normally I can hold them at whatever pace they want to run, but I just couldn’t sit with it, so I settled into a pace on my own. So, I kind of settled into fourth about the 800m mark and just stayed there (laughs).

   P: OK.

   J: And the other guys, I was running quicker than them, but not quick enough.

   P: While you settled into a physical rhythm, and as you say, you just sat there, I’m curious - did you have the same approach? Were you in the same frame of mind for that whole run?

   J: Ah, I tried to surge a couple of times and have a go, but the legs just weren’t able to.

   P: Yes. So a couple of points where you thought, “Oh, I’m going to have a crack at it.”

   J: Ah, I had a crack at it the whole way through, but there just wasn’t a really top-end speed there. Like, it just wasn't going to happen. So I tried to just get my legs turning over fractionally quicker, but they just, didn’t (both laugh). Just not that day!

2. J: That’s what I had to resign to it. You can, I chased to a degree, but had I chased much harder, I would have gone lactic in that first 5k and killed myself, so I had to go with what I could. I was kind of hoping that once the other two dropped off the back of [B] and [A], three of us could work to catch two, but they obviously didn’t have the legs. So I sort of took off at the run. I was sort of running chasing no one (laughs). Then, at the turnaround on the last few k on the bike, the bunch took 20-30 seconds out of my lead, so now [C] caught me about the 6-7k mark. But no one else caught me, so, it was alright. But had I swam five seconds

> quicker, I might have been with [A] and [B], erm, and I know I'm running way better than both of them over 10k, so five seconds in the swim could have meant a win. But there are still a lot of ifs. I might not have ridden well, all sorts of stuff.
>
> P: Yeah. You don't know how it is going to unfold, do you? But I appreciate the frustration of that, especially if it was really choppy, and you couldn't even see what was going on.
>
> J: Yeah, I mean the first turning buoy I think I went around equal first or second, so I was up in that bunch the whole time. It's just I got caught off-guard by the waves just before the last turn. Just sort of whacked me, and I had to double back to go around the last buoy, they sort of pushed me in a little bit. So, oh well.

Jamie had decided in this race that the outcomes were unavoidable in the face of the contingencies mentioned. I thought initially that his responses were about doing what he could to actively cope (effort-stress), and about not letting negative emotion overwhelm him. He appeared to manage his performance by evaluating and accepting the circumstances as beyond control, and controlling his effort. On reflection, to suggest that Jamie is *not letting* his responses overwhelm him suggests that he is actively suppressing them, and using some sort of coping process. It is just as likely that he does not appear to have negative emotions in races, full stop. There is evidence that this is true in his responses to me about stress also (see above). Stress, if Jamie experiences it, is fleeting and not that influential. Jamie reflects with confidence and competitive spirit. For example, when he discussed the race he described above at a later time, he slapped his hand down on the table and smiled, and said that he thought he could have beaten them both. He did not respond to my attempts to make him feel better, or cheerlead by justifying an under-par performance, probably because my remarks were unsolicited and he had no need to account for himself in his mind, and no need to manage the impression he was making on me. It seems I was more constrained by my own impression management needs, which is probably why I made the comment in the first place.

Although Jamie's emotional responses to losing the race were not actually that strong and he did not seem to experience anything that was particularly stressful to him, he did note that there have been other examples and hypothetical scenarios in which he could envisage a different response. In talking about negative mood shifts in his racing, he noted:

> J: I guess once the horn goes, you shift straight into, not a white line fever, but kind of "go!" I go from being all kind of settled to (pause) totally channelling everything into [being] fast. I don't know what the word is. You just switch everything on. You're awake and you take off. I think until that first turning buoy you can stay calm. I think, though, when I lost those two steps, at first you kind of think, "Oh shit." Oops, am I allowed to say shit?
>
> P: Yeah, you can say shit (both laugh).
>
> J: But I didn't panic. But I would be inclined to panic if I got to the first buoy and I was tenth. Then I would be like "Uh-oh." But, given where we were at, I knew my swim was going to be enough. If I was stuck I could probably turn it on at some point, to get up into a better position.
>
> P: That evaluation is sort of more, "How do I adjust my game plan to still get the result?" Nothing really threw you out?
>
> J: Erm, a couple of times with the chop it did. It wasn't panic, it was (pause) I think I swallowed a bit of water off the back straight. It was kind of frustrating that you couldn't get a good rhythm. But you don't want to turn it into an issue, because you know it's the same for everyone, and no one is really going to be taking off. And they didn't, it was just that one little obstacle.

Again, this passage shows Jamie to be so level-headed that even the hypothetical "panic" does not even seem particularly salient. My line of questioning, however, continued to present stress and negative moods as the topics I wanted to focus on, and his responses look more like efforts to try and please me and come up with something that *fit* the study, even though stress was not really a part of his world. Even when he could identify the difference in his approach when the stakes were higher, there was still no real evidence to suggest that his response to stressors or his coping style during the race

would be much different, possibly just that his pre-race approach would be tighter and more planned, and that there would be more reflection afterwards:

> J: Next week will be different, I can tell you, there will be more at stake on Monday. You will either have a happy person or someone a little bit more subdued (laughs). If I came fourth next weekend, I'd be like, "No, that was crap."

Jamie cited examples of his deliberate control over his emotional experiences, for example:

1. J: I didn't let it get out of hand. It wasn't like I panicked and put it in a really big gear and tried to go hard. You just sort of say, this is my speed, and this is what I'm doing, and someone is going to have to do better than that to first of all match me, but then to catch me. Probably thinking back, there is a little bit more pressure because it's closer. And assessing who is there, who can run, who you have to match. There was that pressure, but it was a totally different mindset than the one where you are on your own for an hour just sort of stuck in no man's land. You just have to see it through.

2. P: On the bike there were some significant things happened there. As you say, [B] and [A] got away, and the other two dropped off but they didn't have the legs to stay with you. What was your mood like then?

   J: Well, when I caught up with them, it was very good, happy. Pleased you've got to them and hoping they'll be able to work with you. But when they couldn't, it was frustrating. But you try not to fluctuate too much. If I had have said (pause), if I got all angry or whatever, it could have been pretty negative and dragged me down. I just had to settle into my own rhythm and think, "well, I'm still in third, I have still got a big gap on the other guys," which is what I did. It's not super-positive, but it's as positive as I could have been at that point. I would rather be with [B] and [A], but at the same time I had enough of a gap to have some time on the runner guy.

   P: Mmm. OK. And that's quite a long ride, isn't it?

   J: Yes, it was an hour of frustration (laughs).

3. P: My take on this is that you managed to stay relatively composed through it. You didn't spit the dummy when you were in no man's land on your own.

   J: Yeah, I was probably close a couple of times. Not to spitting the dummy, but just to being super-frustrated because I couldn't do anything, and I wasn't going to let myself just back off and wait. So, kind of frustrated, but if I had let it get out of control, I would have wasted my energy and probably been caught by the

> bunch. Because I would have lost the plot. But I had enough concentration and focus to keep going.
>
> P: OK. So you recognise that there was a point there where it could have tipped over, and you maintained control.
>
> J: Probably, yeah.

It seems that one of the motivating factors for Jamie in not allowing a loss of control that might lead to overwhelming emotion and a drop off in performance is his sense of pride, which in reversal theory terms is seen as a emotion felt when the autic-mastery pair is salient:

> P: How do you keep your mental energy levels up?
>
> J: Erm, maybe it's pride. It's pride to a degree, because in my first full elite races, I got smashed. I was the last one, I think, [in] my first one, maybe. And that was against guys ranked top 20 in the world, but I still wanted to finish the race. I think there is only one race ever that I pulled out of, because it was going to wreck me way too much in the heat and the hills to finish, and it would have wrecked my training week and future races. But other than that, generally I make sure 100% that I finish the races. If you start something, you finish. And also make sure you do it as best you can, you don't let, well not so much certain people, but you don't want people to beat you. So, [it] doesn't matter. I don't want my name to be any further down the list than it has to be.

Metamotivational states and dominance. Jamie showed examples of being both paratelic and telic in orientation. My interpretation is that he was more inclined to find his good experiences in the paratelic state, and he probably had a preference for this state. As mentioned, Jamie described himself as strongly competitive and unquestionably focused on winning, but he seemed less inclined, overall, to approach his sport with structure, planning, and outcomes as the primary focus. Although his preparation was thorough, and he directed his energies towards excellence in his performances, his attitude was more often fateful, spontaneous and energetic. In describing how he preferred to feel, he said:

> J: I try to be pretty sharp. Erm, which, on the days when I'm feeling a little bit flat, I just, you know, whack myself in the face a little (laughs), something to switch on. Settled but sharp, not jittery or anything, just waiting for them to start.

He seemed capable of remaining in the moment and enjoying the experience for the sake of it. For example:

> J: I could have worked a bit harder. I don't know. The little junior burger got away, and I didn't know who it was. When I stood up and [D] was probably next to me, and he kind of turned to me and said, "Who's that?" and I said "I don't know!" and then we kept running, and then I went "Why are we talking?" (both laugh), and [D] started laughing and almost fell over! Oh jeez, it was a good fun event. It is always good down there, because it is a good solid course. There were plenty of hills on the bike, and stuff.

Other passages from our conversations throughout this case study also suggest a paratelic orientation, but the dominance did not seem to be strong. Some of the examples given earlier suggest shifts (reversals) in his mood to focusing on effort and putting in goal-oriented hard work when faced with unpredictable circumstances, as the following passage, suggesting a reversal into telic damage-control mode, highlights:

> P: I was wondering if that affected your motivation, that hour stretch of hard work on your own, feeling a bit frustrated, but you knew you were 2.5 minutes from the front guys?
>
> J: It probably affected my race. I mean, if I had been up there with them, there is no way they would have dropped me. My bike is my strong point, so I would have been super confident (laughs). I would have come off the bike buzzing. Whereas I came off the bike more like "Well, let's go." It was more sort of a mindset to see it through and work hard, rather than buzzing that you might win.

I felt on occasion that Jamie had learned how to race in a telic mode, and to approach races this way deliberately, particularly races that he did have a higher emotional investment in. He spoke about being erratic in his younger days, and more planned, organised and serious-minded for important races now. He regularly used the words panic and relaxed, which relate to the telic state. He also mentioned that

experience and coaching feedback had shaped his approach into what could be seen as a more telic approach. Racing in the telic mode, particularly when it is a tough assignment, or when there are unexpected contingencies, seemed to allow him to be calm and focused in a race. In between races, however, perhaps Jamie reverts back to his in-the-moment paratelic preference. When I asked him whether he spent much time thinking about his last performance and assessing what happened, he responded:

> J: (long pause.) Not really. It's kind of a whole fresh new race, and I kind of go into it as that. I don't sort of look back on the last race to try and drag something from it. I mean, maybe if I had won it might have been different. I might have gone back to find one of the real smacking positives I'd had, but even then, I don't think I have gone back to another race in preparing for the next one.
>
> P: OK. Clean slate.
>
> J: Yeah, just rather just go and deal with it then. Because every race is different, different venue and conditions. And even if they were at the same venue, there would be a different condition each week, might be windy, rainy, really hot. So I don't think you can take a huge amount. And then, I mean, even inside the race itself, you know, you can have what I had at [venue], go off the front and get stuck in the middle. Or you can have a pressure situation where everyone clumps together, and you can't really get away in that race. So, yeah, I didn't take too much.

Overall, Jamie presented himself as someone who really did not respond negatively to stressors. In all of our discussions, I did not see any significant examples of anxiety in his descriptions of his competitive life.

Our relationship and the research process. The three athletes whom I had interviewed as part of this research prior to meeting Jamie were strongly telic in orientation, and in our first session I found myself asking telic questions, such as referring to him setting goals or planning, which was language that I introduced and which was obviously tied to a reversal theory lexicon. I noticed as I transcribed the interviews and look for themes, that I was unsure of where to fit Jamie, as he did not

neatly fall into categories of metamotivational pairs as I would have expected. Once again, I was reminded that reversal theory was just one way of viewing Jamie's story. On first impressions I had considered the more interesting aspect of Jamie's competitive life was that, through various strategies (attribution, reversals, effort), he managed to avoid being overwhelmed by negative emotional experiences, which contrasted with other athletes in the study significantly. Having given his stories more thought, I am not convinced that he used strategies at all. The term strategy implies conscious application of attribution or reversals or effort as coping approaches. I think his approach to racing is a reflection of who he is as a person, his Jamieness, rather than anything deliberately employed as a method of defence against anxiety or other negative emotions. He does not need to avoid negative emotion because it does not come up for him in the contexts discussed. He did not present any substantial evidence of what the relationship between stress and performance was for him, or how he could fit within a reversal theory paradigm, because stress according to my ideas, was a non-event for Jamie. The efforts I made initially to fit him into the paradigm seem procrustean, and reinforce to me that stress in sport means different things to different people.

Jamie was an example of the research maintaining an applied flavour for me, as I regularly asked myself the question "what does that mean for him, how would that information be useful for him or his coach?" This reflection encouraged me to explore beyond the apparent metamotivational states and look at what he valued: a gutsy effort, feeling pride in himself, the enjoyment of "belting himself," as he said, knowing what he was capable of, and the camaraderie that he found in the sport. In these aspects of his competitive life, he seemed likely to find the greatest reward.

In my first session with Jamie, I deliberately praised him for a fourth placing at his last race. I had taken this cheerleading stance with a previous participant in the study, and realised very quickly that, in the first participant's eyes, fourth was not acceptable. At first I felt uncomfortable, but I chose to express praise again, as I saw the value in gauging his response, it showed that winning was the only acceptable outcome in Jamie's eyes, but his reactions to not winning were different to the first participant's reactions.

In one of my interviews with Jamie, the tape cut out after a short time, and I had to call him after the session to explain and recount what we had said. I recall thinking that I was glad it was Jamie, because there was a fair chance that he would see the funny side, and he did. Jamie's natural style was to interact with me as a peer in the study, and I did not experience any imbalance in the power dynamic between us. If I had experienced an imbalance, he would have allayed any preconceived superiority I may have considered between us in the second session, when he told me that he had seen me playing basketball, and getting comprehensively beaten in a semi-final play-off. We talked about stress and performance on a level playing field thereafter.

Case Study 5

Robbie's Story

Introduction. At the time I met Robbie, he was an athlete in transition. He had been successful in the junior, under-19, and under-23 ranks, and although he was still in the under-23 category, he was starting to race in the open field against senior triathletes with more experience. During the interviews he stated that he was one of the youngest in the State institute scholarship group, and new to the open category. Although he did not seem to regard his jump to the senior level as a significant source of anxiety for him, he referenced his performances against his relative inexperience and possibly used the novice status to justify some of his less successful race experiences to himself. This attribution struck me as a measure of his coping; he made external or circumstantial attributions for lesser performances, and thus avoided any erosion of his confidence. Yet he openly spoke about his own abilities and made several confident and affirming self-statements, using language such as fantastic, sensational, and outstanding to describe his efforts and outcomes. He showed a sense of status and pride in his belonging to the elite ranks.

Robbie showed some evidence of insight into his preferred approach when he is racing, and also of how that approach has changed as his race difficulty increases:

> R: When I'm on the start line, definitely, sometimes I just want to be in my own little space and have the cleanest start possible. But other times I'm more willing to be around everyone and follow everyone else. I think it depends on the race. In the small local races where I know I can swim well and get a bit of a break there, I'll definitely be ultra switched on to where everyone else is and try to separate myself from everyone else, nearly try and, erm, be a bit of an individual there. But in the elite ranks, I definitely feel that, when I first started, I was just following everyone else, and I'd go where everyone else was and try and do that as best as I could.

P: Mm, partly learning

R: Yeah, partly learning…

P: And as you said earlier, a bit more anxiety in those situations

R: Yeah, that's the thing. Just follow, and if they are trying to do something, I try and do that as well. Even to the race in [venue] on the weekend, erm, I kind of started to separate myself a bit more and started to race like I would

P: In a smaller race

R: Yeah, so when the race started I pretty much held back a bit, and when everyone dived in I swam a different direction or just off the side, so I could be by myself.

P: That's your preference?

R: Yeah, choose my own pace because I'm kind of finding out that that's when I swim the best or start the race best.

Robbie described a preference for being alone when he was on familiar ground, and it seemed like this preference reflected an understanding of what worked for him, and his (informal) strategies to manage his pre-race preparation. When he was on unfamiliar ground, and his anxiety levels were higher, he seemed not to trust his own knowledge and preference, choosing rather to defer decision-making responsibility to the senior athletes. His example suggests that his planned, telic approach was superseded by a focus on others in the bigger races (particularly during the swim leg). The discrepancy between his preferred and felt levels of metamotivational states were greatest at these points of following others, which Apter (1989) described as the cause of tension stress.

When I introduced a focus on emotion (anxiety) into the conversation, Robbie responded by describing his behaviour, what he did rather than what he felt. This deflection was fairly typical of his responses throughout our encounter. During the conversations Robbie jumped around from topic to topic, and at times I found it hard to

keep track as he switched and weaved his way through his recollections. His verbal shifting around seemed particularly prominent when I asked him to describe his mood or emotion during performances. I wondered (at this early stage) whether he was anxious, either about being interviewed by a stranger, or to talking about something important to him, or whether he was really not in touch with his emotions when he raced. The following passage gives an example of his preference for discussing events and behaviours rather than emotions:

> P: Before the interviews, you guys had all separately identified which races had a higher emotional investment for you. What was special about this race for you?
>
> R: The main goal of the race was (pause), it was an under-23 qualifying occasion for the Worlds this year, which are in a couple of months. Not that I would have probably travelled to the World Championships because (fidgeting), because it's an Olympic year most of the funding goes to the Olympic athletes, so it would have been quite expensive being that it's in Portugal, and it's quite a remote area. Erm, but to make the team would have been great. And given the performances that actually finished the race, because there was only a select group that actually finished, it would have been a realistic goal. I didn't really think about that. It wasn't my major goal; my major goal was to have a great swim and get in the lead pack on the bike and then see how the run goes, but, so (pause), it just wasn't to be. During the race and things, I just had the usual nerves but the motivation in the swim was all there (pause), and the motivation on the bike was there as well. It's just coming out onto the bike it was gradually uphill before a really steep section, and that's where the majority of people dropped off. So it wasn't just me getting blown out the back, there was at least five or six guys, so (laughs).

The passage also illustrates how Robbie tended to verbally ramble and invest himself in justifying his actions and responses. I felt as though his getting the story in order was part of his defence against anxiety, and that anxiety would have been associated with not managing the impression he made on other people. The impression I got, however, was that Robbie had a strong need to be seen as successful, positive, and as an effective coper.

On other occasions, Robbie described a negative outcome and then turned the tone of his comment around totally with a confident or positive self-statement:

> R: Within 2k I just got dropped from that group (laughs); I got the first part of it right, but the second part was (brief pause), the first part of the bike is where they dropped me, and from there I just went backwards. I put it all into that first part of the bike, and it didn't work (changes his facial expression from frowning to smiling). I'm not at all unhappy, like, I'm glad I gave it a go because you can't perform or show your ability unless you're in the front pack in the bike. That's the goal now.

Robbie seemed to retract anything negative in his self-commentary, and this struck me as tightly managed once again. It was as if he dipped his toe into the water in talking about what did not go well, and then scurried back to the shore, reframing the situation positively. In part, this tight management may have been about controlling how I saw him, or it may have been about convincing himself that everything was OK. Many times throughout the interviews, I felt that Robbie was working hard to *present* himself. One of the effects this I tight impression management had on me was that I tried harder to establish rapport and allow him to relax into the conversations. But I also felt frustrated and closed-down, as if I were missing the greater part of his story, veiled behind contradictory statements and mercurial changes in direction. My frustration and closing down may have been communicated to Robbie and actually lessened our rapport as much as I tried to make him feel comfortable (see the section *Our relationship and the research process* below). What exaggerated my feeling of missing something was noticing Robbie's body language suggested less confidence or comfort than his verbal language. For example, he often avoided eye contact, crossed his arms, leaned back or slumped in his seat, and had an expression on his face that I thought seemed anxious. He spoke rapidly and switched focus regularly, in the first interview particularly. With other

athletes' in the study, I had just assumed that I understood their position or motivation as they explained it to me, or in one case, being so enthralled I did not even seek to understand; I just listened. Eventually, I also considered that he might be choosing to be guarded or self-protective, and that choice was his prerogative as a participant.

Stress and coping. As part of his transition into the elite ranks in his sport, Robbie had been competing in a particular race series (referred to here as the X-series), which had presented him with a great deal of challenge. He described being more anxious before these races as compared to local races, even when the field was similar. Robbie described what seemed like a build up of worry about each race in the series. When Robbie told the story in the first passage below, I sensed a mounting tension, and outside of our session, (in the elevator on the way out to the car park) he laughed as he called the X-series races "his nemesis." The second passage suggests that he coped better with the familiarity and experience of a local race:

1. P: OK, Sunday you were in [destination], and that was an X-series race, yes?

   R: Yep, yes.

   P: Tell me about that

   R: Erm (pause), I ended up not finishing. Which, er, was a bit of a bummer, but, erm, all this year I've had problems in the X-series races with the swim (his expression seemed anxious). So I've come out of the local races, which is still very stiff competition (pause), I'd be leading every swim, and swimming really strongly, and in these X-series races, I'd just get (looks away), I'd be coming last out of the water and having a huge break, and in the type of format it is, being drafting, meaning that the bikes can bunch up and form groups, you are just behind the 8-ball from the start, and there is no (heavy emphasis) way you can catch a group of cyclists up the front.

2. P: So comparing this race to your last race, which was an X-series race, which used to be your nemesis (both laugh), but it's not anymore, how do you feel about this one compared to that one?

> R: Oh, 100% happier, than probably any X-series race I've done. I had enough energy to push myself through the whole race. Whereas in the X-series you always get to the end, and you are completely buggered. Yeah, there is no way I could run 10k like I did then. And the pace of that race wasn't much slower than an X-series race. If I had done my swim time and run time in the same I would have been ultra competitive in an X-series race [if I had run/swam these times in an X-series race]. And compared to the last race, well, I didn't finish the last race.

Again, the message I was receiving verbally did not match the intonation in his words, his body language, and the expression on his face, which suggested anxiety and a need to make it seem like he was in control, when possibly he did not feel that he was. As he described the improvements in his anxiety management over time at local races, he ventured to suggest this improvement was also happening with the X-series races. At other times, the comparisons were clearer, and it was apparent that he had not quite made that leap in X-series races, but he knew that was what he needed to do:

> R: I've got no worries in the local races. I probably go in a lot calmer. Like, I've done it lots of times before.
>
> P: Mm, I remember you telling me about the last X-series race and saying, you know, you did feel a bit uneasy beforehand.
>
> R: Yeah, like I get (pause), after travel and staying in a hotel and stuff, you do get a bit nervous because everything is related around the race, but the day before this I just trained and worked like I would any other day.
>
> P: Just a normal routine. I think maybe the word you used last time was a bit of a feeling of dread, on the beach, with the X-series.
>
> R: Yeah. Not there at all. There could have been tidal waves out there, and it wouldn't have bothered me (smiles). I think I'm a lot calmer about State races now. As a junior when I used to do it, it was kind of like X-series races now, like I used to get nervous and things, and I wouldn't want a whole lot of people around me. Now it doesn't really bother me.

Robbie described some pre-race anxiety when we spoke. He was able to distinguish somatic and cognitive components of his anxiety at times, for example:

> R: I think I just get worked up.

P: What does it feel like?

R: I can't explain it, it's probably just a douse of nerves, and erm, physically it's the only time I can indicate when I've got nerves. Like I can be dead calm before a race, and people will say "oh you're nervous," but unless I can physically feel it, like butterflies in the stomach and stuff, erm, not that it's ever really affected a race, besides that one in [venue] but (pauses), and like nerves are good but I think "to an extent," erm, probably in that race in [venue] I crossed that line, but in [different venue] I didn't really have the butterflies in the stomach and stuff, but I was definitely ready to go when the race came. So I was still switched on, but I wasn't really physically nervous.

Here, Robbie describes the importance of cognition and meaning in his anxiety responses; he can have the same set of feelings somatically, but if he labels it nerves, it becomes a negative sensation. He can feel *ready*, and still not consider the associated somatic feelings to be unpleasant, but the introduction of cognitive worry moves the hedonic tone to unpleasant. He also acknowledges that there is a cut-off point beyond which feeling nervous becomes detrimental, which supports much of the literature in the area (Jones, 1995), from the early inverted-U hypothesis (Oxendine, 1970), to Hanin's (1980) IZOF model, and Hardy and Fazey' (1987) application of catastrophe theory.

Even though Robbie discussed his emotional responses (nerves), he was quick to reiterate that anxiety was not a problem normally. In the conversation discussed here, he continually interrupted me and cut-in, to explain that he could handle anxiety, or to justify his unusual response:

P: Mm, so there is a point that's comfortable for you, and if you go beyond that point (Robbie interrupts).

R: Yeah, like I'll rock up to every race in the State and won't feel a bit of nerves, but it's just the races that are important, like you said, those emotional ones, that kind of switch you on.

P: You start to get that butterfly feeling…

R: Yeah definitely

> P: It's a really interesting point, and every athlete seems different in where they like to be, you know, emotionally, in mood, and (Robbie interrupts)
>
> R: Yeah, I hate to be (pause), the only time I really get nervous is when people say "are you nervous?"
>
> P: Right. Can you tell (Robbie interrupts)
>
> R: And that will get me thinking, and the like suddenly it will be like, "well yes I am now!" (both laugh). But I think if it was just me carrying on my daily life before a race, like I have done since juniors, like in the local races, then every race would be fine. But when you add the element of racing in the middle of the day, with the elite competitors, big crowds, and things like that, it kind of builds up a bit.

His interruptions convinced me even more that he wished to manage the impression he made on me, and it seemed important to him that he was seen to be handling his emotions. It appeared that there was a right way to act, in Robbie's view, and he strongly desired to present himself this way. The "right way" to act came across as fairly macho, tough, imperturbable, success driven, and confident. He seemed to laugh to deflect attention (or possibly to diffuse his own tension) when we spoke about negative emotion. My impression was that it was not really OK to be scared, because he was an elite triathlete; it just did not fit the grain for him. Robbie may have responded less defensively if I had used language specifically around performance, rather than emotion. He could not divulge his emotions (for long, or in detail) because they just were not acceptable.

Robbie did note the elements of his pre-race preparation and environment that might build anxiety for him, including the crowds and whom he was around:

> P: Tell me about the crowd, how does that affect you?
>
> R: Ah, I do enjoy it definitely. Like, it's great if I'm racing well (laughs) in front of them. And it's great racing in front of a home crowd too. I've always been the type of athlete who wouldn't tell friends when I'm going to race, and if they

> wanted to come I'd be like, "oh if you really want to," but now I've kind of grown into the idea of inviting people to come and watch.
>
> P: So previously you'd feel anxious if people you knew were there?
>
> R: Ah definitely, definitely. And erm, I always got worked up because people would ask you questions before the race and things, and yeah, I really wouldn't want to talk (laughs), and I'd be quite a quiet person. But now I'm a lot calmer I think. Just in the last couple of months before all the other races, when I'd normally rather be by myself. Now I'd rather be around a group of people, other athletes, and things. Like, if we travel together and everyone is racing, you don't really talk about the race. Over that time before, if I had been in a hotel room I think I would have worked myself up, but erm, with other people around you had things to do, and it kind of got your mind off the race coming up.

Even though Robbie had worked out his preference for arousal control, it had been fairly randomly employed and as with other athletes in the study, he had largely worked on trial and error (moving away from others, breathing deeply, etc). In pre-race situations, his attention to his impression management also may have interfered with his ability to stay in his preferred state:

> P: It sort of sounds like there is a distinction for you. If you are with a group of people now before the race, that's pretty comfortable, as long as they are not asking you how you feel (smiles).
>
> R: Yeah. It's if other people are going around saying, erm, like my mother is a prime example (rolls his eyes), I hope she never hears this! (laughs), erm, she'll go "have you got this, and have you got that," and it will just, yeah, works me up no end. People saying stuff like that kind of switches you on and gets you thinking too much about stuff that is pretty much irrelevant.
>
> P: Right. So thinking too much (pauses), you prefer not to be thinking about it?
>
> R: Yeah, I prefer to pack my bag and go down there and do my warm-up.
>
> P: And your mind is switched off from the race at that point?
>
> R: Yeah, yeah. It's not really until I get my goggles and go down to the swim start that I start to get a bit more turned on.

In reversal theory terms, he was expressing a preference to be relaxed (in the telic state), but his uncontrolled interactions with others raised his anxiety levels and caused

growing tension. At other times, Robbie's focus on other people allowed for a salient alloic-mastery state (and the unpleasant emotion of humiliation). This focus on others significantly raised the tension he felt, as described:

> P: So what does it mean when you say "I was definitely a write off," what were you feeling?
>
> R: Ah, like I love the wetsuit swims, and if the water is above 23 degrees the elite competitors don't get to wear a wetsuit, and erm, throughout all my junior competitions, they have pretty much all been in [State], and I've always been lucky enough to get wetsuits. So being the first couple of years without racing in wetsuits, I'm just trying to adapt to the stronger swimmers. And I was pretty sure that we'd get a wetsuit in [venue], and then when I found out we didn't, man!
>
> P: That changed your mood?
>
> R: Yeah, definitely it changed my mood. I got really worried that I wouldn't make it in the swim. And also because of the home crowd, because I pretty much didn't want to be embarrassed and things like that.

Being embarrassed is closely associated with the felt transactional outcome (net loss) emotion of humiliation in reversal theory terms. It is associated with the autic-mastery metamotivational state (a focus on gaining mastery over others and being seen as superior to others), and humiliations opposite in the pair is pride. Robbie showed examples of pride throughout his stories, and examples of wanting to be proud of how he looked in front of others also.

Robbie suggested that when he thought too much, his experiences were less pleasant, and he had interpreted that his mood and anxiety may have affected his performance at times, as described here;

> P: If you can think back to the start of the race, what sort of mood were you in?
>
> R: (sigh, as if it was tiresome to consider his mood) Oh, I was probably pretty placid. Like, I remember back to my first World Championships in Cancun in Mexico when I was racing junior, I was definitely scared. And scared for a couple of weeks before it, and that was my first real elite level competition. And then

> before the first X-series race this year, I was probably pretty calm and ended up having a pretty hopeless swim. So fair enough, the next race I had another hopeless swim, and I was getting more nervous, and then before the Australian Championships in [venue] I was definitely a write-off by the time the swim came, and I think that affected my swim there, so (pause) I just get myself really calm before a race.

The term placid in reversal theory terminology is the pleasant emotion associated with the telic-negativism metamotivational state, and the opposite unpleasant emotion is anger. Robbie gives examples later in the interview of anger not working for him, and it is possible that, if what he describes here was placidity (rather than calmness), that this end of the telic-negativism variable did not work for him either. He does use the words calm and nervous, but the statements Robbie made in the passage above seemed contradictory. He was pretty calm, then he had a hopeless swim, and then he tried to get himself calm before a racing. One interpretation would be that he moved between the two metamotivational variables of telic-negativism (placidity), and telic-conformity (anxiety), and actually missed out on his preferred telic relaxation. Alternatively, it is possible that his strategy of trying to get calm was poor, and he wanted to feel something else, or that he was unsuccessful in actually getting himself to the calm state that he did prefer. Earlier Robbie had described feeling ready and switched on, which suggest a strong level of arousal and focus, rather than *flatness,* possibly associated with placidity. Intuitively he knew that he wanted to move away from the nervousness, but did not know how to achieve a good alternative state.

Robbie articulated well that anxiety for him is largely a pre-race phenomenon, and once he is on-task and racing, it dissipates significantly, as the following passage shows:

P: What happens to your nerves in the race?

R: Don’t feel any

P: All gone?

R: Yeah all gone. It's pretty much just hard work from then. The only time I ever feel nervous in triathlon, during it rather than at the start, would be sometimes when the pace slackens off at the end of the bike leg, and that's when you think, well gee, I'm going to have to run pretty well, and you start looking around to see who else is there that you know can run.

P: So you start assessing the competition again

R: Yeah, I've done that in the past. There are only a few races that has ever happened, but that's the only time I ever get nervous during actual triathlon.

It seemed that once he was racing, Robbie could generally get into his preferred telic state, focus on his goals and tasks and invest his emotional energy in staying in the moment, but it was particularly noticeable that this level of control happened after the swim leg on the occasions he described. He was often feeling out of control in the swim, and just wanted it to end. I sometimes felt like the race started for him after the swim in the X-series races, and he expected the swim to be difficult.

Despite consistently directing Robbie towards exploring his emotions in racing, early on the only explicit examples of emotional responses he gives are pre-race (when he used fairly dramatic terms such as "write-off"). As outlined, he did open up more as we progressed, although he did not describe himself as an emotional competitor and appeared much more comfortable and clear when he could focus the conversation on concrete behaviours, thoughts, or physical sensations. Robbie described stress as short-lived and easily overcome, which suggests it may not have been that important to him, or that he did not wish to consider its importance. In later passages, however, Robbie describes strong and detrimental emotional responses that have taken some time to recover from within a race. For me, these later examples hinted that Robbie could be a highly charged emotional competitor, but had a strong preference not to show it.

Metamotivational states and dominance. Overall Robbie displayed a preference for the telic state, and only one example suggested he might approach a race differently, which was when he talked about going to try his first long-course race, and he was giving himself permission just to see what would happen, which appeared more paratelic, although he was speaking hypothetically about how he would approach the race. Otherwise, his telic dominance seemed to be strong, as highlighted through the examples already presented and in the following passages from the interview:

1. R: I like to have a really good look over things at the start, so where I'm going to swim, and if it's a dive start where I'm going to be starting, and which feet I'm going to place forward, and if it's a beach entry, where I should run, things like that. I like to have all those things under control before I go, so when it comes to the start I'm not worried about little things like that, technical things.

2. R: When I'm training, the whole time I'm thinking about technique and about things you could be doing better at the time, and that's the kind of mind set I try to take into the races. Maybe not so for the swim because the swim in triathlons I try and get to the end as quick as I can, and that's the philosophy I've always had in swimming, but for cycling, it's go hard at the start, but then I want to keep that momentum all through the race. So I'll look at what gears I used on particular parts of the course in the first lap and try to do that from then on. And in the run it's pretty much trying to keep one foot in front of the other and keep everything bouncing and flowing. I'm always very nit-picky about how I feel in training, and that should be how I feel in the race as well. I should always be running on my toes, and cycling, definitely trying to pedal in circles. In the triathlons I try and do that, and where I sit on the saddle and things. I think about that as my goal.

3. P: What's on your mind in the swim?

   R: I keep switched on and motivated trying to fight past the other guys. If I'm constantly trying to move from the next person to the next person, I'm not just relaxing and swimming in the group. Because I find if I do that, then fair enough, sometimes you might relax too much, and the next thing you know in the blink of an eye you could be by yourself and swimming off the back. I'm willing to hurt as much as possible to stay around those people.

I noted the distinction between what he felt it took to perform well, and what he might describe as feeling pleasant. In reversal theory terms, Robbie was in the telic-

conformist state; therefore he should feel good if he is relaxed. In reality, he wanted to feel whatever it took to perform well, and he was more motivated to do that than to experience pleasant emotions. Although reversal theory was not designed to explicitly outline which states are best for performance, Robbie's experiences highlight that the theory would be of limited use in predicting the relationship between stress and performance, if one looked only at the discrepancy between preferred metamotivational variables and felt metamotivational variables; the gap would be a good predictor of tension-stress, but this relationship cannot be extrapolated out to predicted the relationship between the stress one feels, and a performance outcome. Being in a pleasant state is not necessarily synonymous with best performance.

Although largely displaying the telic-conformist state, Robbie showed more of the telic-negativistic state in his example of getting angry in response to things being out of his control:

> R: Stress in a race really comes from things going wrong, things happening that I can't control. I definitely get stressed with mechanical things. There was a time when a guy crashed in front of me and brought me down. That blew me up no end. That's probably the only time I've lost it in a race. Erm, and another race in [venue] this year, first out of the water and got a break, and my wetsuit got caught on my leg, and I couldn't get that off, and that stressed me out. But if everything goes to plan and runs smoothly, and it's just down to my ability, then there is no reason for me to get stressed.
>
> P: When this guy came off his bike and took you down, you said it blew you up no end. What goes on, what happens?
>
> R: Ah yeah, if I get stressed, I just get, I get angry. Yeah, I get really angry. Not so much angry at myself, I just look to blame everything else.
>
> P: And you ended up being really angry with the guy?
>
> R: Yeah, yeah. I was completely agro with him, and I was for a couple of days. But now looking back, there is probably no reason. Like he was completely in the wrong, and he did something completely stupid, like he ended up (pause) he was

> complaining to an official and had one hand on his handle bars, and fair enough he falls over and falls right onto me. And like the damage that was done to my bike, and he took me out of the race. He had me wound up for a couple of days.
>
> P: Mmm
>
> R: I probably did in the end have every right to be angry, but I was really angry at the time. And with the wetsuit as well, the longer my wetsuit was on my foot, the more worked up I got, and I ended up, it took me the whole bike ride to get back into any type of racing rhythm. So, I was still riding pretty fast, but it was a pretty poor performance.
>
> P: So it actually did change your performance when you got angry?
>
> R: Yep. I reckon if my bike hadn't been broken when I fell, I would have got on my bike, and I would have been so angry that I would have gone pretty badly anyway.
>
> P: Mmm. What happens when you get angry?
>
> R: (sigh, as if he were reluctant to discuss it). I don't know. I, I'm probably willing myself to go harder rather than thinking about the little things like technique, and say cadence on the bike, or swimming stroke or running stride.
>
> P: It's the wrong sort of energy?
>
> R: Yeah yeah. You're just burning up; your brain is just working too hard for the body.

This example of his emotional response to stress described a (perceived) wholly unsuccessful and debilitating outcome. Robbie was overwhelmed by anger, to the point of being unable to function, and it took days for him to calm down. Unlike other athletes in the study, who have been able to use anger effectively as a source of energy towards their performance goals, Robbie did not cope well at all with the emotional response. Lafreniere et al. (2001) noted that undesired reversals might happen frequently and intensely for athletes short on experience. Robbie had little feeling of control over his anger, and the unsatisfactory intensity of anger made it intensely unpleasant. Although Apter (1989), and later Kerr (2001), considered involuntary reversals as psychologically

healthy, they also noted the importance of having adaptive states operating to fit a person's social environment and own needs. In this case, the telic-negativistic state (and anger) did not meet Robbie's needs. Robbie's stories describe a person who fits more into the arousal-avoidance metamotivational system than the arousal-seeking metamotivational system. His own strategies, designed to calm him down, are probably on the right track, but may need more structure and rehearsal.

Robbie did show a good example of a reversal out of anxiety and into something more like readiness or possibly excitement, what in reversal theory terms may be described as a healthy instability. This example was towards the end of the last interview, where Robbie was more comfortable discussing emotion:

> R: I get a little bit nervous. A little bit of fear. But, erm, probably also would be, yeah, like you're in starters' hands, so a little bit of no control over what's going to happen. Like, you can't exactly say "wait, I'm not ready!" and I've always got that feeling like, the "what ifs?" and things like that, and doubt, but once they say you are in starters hands, it's pretty much like, well, here we go. It's not a negative thing; it's like well, this is when it is all going to happen. That's when you stop being nervous and things like that. It's when it's all ready to go.

Our relationship and the research process. During the first interview, from quite early on, I felt like the process was harder work between Robbie and me than with other participants. I felt like I was interviewing not conversing, which, of course, I was. The effect that this discomfort had on me was that my questions seemed more rigid, and our conversation lacked flow, to the extent that I got lost a couple of times and missed things he said, which became apparent to me when I transcribed the recording of the session. We seemed to go straight to questions and answers without the small talk and rapport building that may have put us at ease initially. My subsequent attempts at rapport building, in hindsight, were also fairly rigid. It was not until the second interview that I

felt like we actually got to know each other a little bit better, and we were both more relaxed. I made an effort to get involved in his story, offer positive feedback, congratulate him where it seemed appropriate, and accept on face value the information he presented rather than concentrating on his impression management, which I was doing in the first session. When he started to discuss and describe stress and anxiety, or what seemed like obvious metamotivational states, I could relax more easily, which points out to me that, once again, I found it hard within the research process to concentrate entirely on the individual and not categorise the information as I heard it. With Robbie particularly, I manoeuvred and manipulated the conversation to look for examples of anxiety. I directly asked him if he was anxious, and I pushed for responses that had emotional content when, on reflection, it seems obvious that Robbie did not always want to disclose or acknowledge his emotions. My frustration drove me harder down the path of wanting to explore his anxiety. In retrospect, I may well have made him anxious, and seemed intimidating to him, directing him towards self-disclosure on uncomfortable topics, and then behaving as if I thought he was not disclosing enough. For a person who was keenly managing the way he looked in my eyes (and maybe the eyes of others), this probing could have felt threatening and caused a greater defensive response than he was already inclined towards (such as shifting topics, interrupting, contradicting himself, and placing a positive spin on his more difficult experiences).

The second race that Robbie talked about I had heard from three different perspectives because two other participants in my study had competed in that race. Rather than this situation providing a challenge in staying true to the individual stories, I found it fascinating to see the same scenes relayed from multiple perspectives. I found it useful to

identify what each participant had focused on and described as important to them in the race, and it reinforced to me just how individualised the personal phenomena around competition are.

Robbie gave me a reality check at the end of his first interview, which reminded me it was a privilege that he was sharing personal information from his competitive life;

> P: Just before we finish up, I'm just wondering how you have found talking about it? How has that been for you today?
>
> R: Today? Erm, yeah, I kind of talk about stuff like that in my mind after the race, so I don't have any doubts and things like that.
>
> P: Kind of mull it over in your mind you mean?
>
> R: Yeah, so like get rid of all the "what ifs" and things like that because I hate people coming up to you and going "oh, but what if this had happened, or this, and if you had have finished you would have finished here," and I'm like "well I didn't finish, and that person finished there and give them some credit." Erm, I hate stuff like that, so I try not to talk about it. Pretty much try not to talk about the race.
>
> P: You prefer to generally just look at it in your own head rather than talk about it with anyone else.
>
> R: Yeah, I love to talk about it with my coach, like, but I hate talking about it with friends or anyone else.
>
> P: Yes, OK. Well I hope this hasn't been a pain! (nervous laugh).
>
> R: No, no, no, this is fine; this is fine.

I realised that perhaps Robbie's involvement in the study, although voluntary, was something of an infringement on his privacy, and what I had considered to be his guarded, convoluted descriptions and responses, may well have been a desire not to bare his soul to me, a complete stranger asking personal questions. At the completion of the study, I ruminated most over Robbie's story. I felt the most disappointed with my own performance in listening therapeutically, and I considered that I had done least well with

Robbie in addressing the researcher-participant power imbalance. In my efforts to uncover the layers of information I believed lay beneath the stories Robbie told me, at times I pushed my agenda at the expense of his comfort. In a way, I crossed the line Andersen (2005) wrote about, where the psychologist-qualitative researcher forgets that the agreement between parties in therapy is not the same agreement in research. In therapy, when buttons get pushed, one usually tries to keep the finger on the button (the discomfort, the sadness, the anxiety) so the therapy client can stay with those emotional states in order to experience them more fully and understand them. In research one does not have that agreement, and holding fingers on buttons, or at least trying to, may actually be a form of abuse. I do not think Robbie felt abused, and his comments at the end of the last interview were a relief to me. I do have to thank Robbie, because probably more than any other participant, he taught me so much about myself in the process of hearing someone's story.

CHAPTER 5

OVERALL DISCUSSION

Evolution of the Research

The original research questions for this study were centred on the ways that stress is experienced by athletes. Rather than looking at what appears to happen to athletes who are stressed during performance (e.g., at what point does performance drop off? What are the factors that shift stress into debilitative anxiety? What shape does the relationship between stress and performance take for athletes?), I was interested in exploring what stress *is* for athletes and how it is experienced. Essentially, this exploration involved considering two elements: how the stress experience is constructed, and what meanings are attached to those stress experiences. Rather than defining and labelling stress or anxiety as concrete phenomena and attempting to make predictions or test hypotheses on the back of such definitions, I asked what athletes experienced, and what they thought their experiences meant for them in terms of their competitive performances and in other aspects of their lives generally. The research interviews covered questions such as: whether the athletes felt they had any control over what happened psychologically for them during races, whether they demonstrated insight into the ways that their frames of mind or mood interacted with their performances, how they managed or controlled their experiences, what worked and did not work in terms of what they did (in their opinion), what they felt and what they preferred to feel (what felt good and what felt not so good). I tried to suspend my judgment on the notion that stress happened in certain ways for most athletes. Rather I focused on what phenomenological meaning was given to their

experiences, and whether the athletes in this study felt they had much control over the construction of those experiences.

The Research Process: Then and Now

As described in the Methods section (Chapter 2) of this thesis, there has been an evolution in the process of the research. I started with the intention of writing a realist tale using a (reversal) theory-led induction. Although I was attached to the philosophical premises of qualitative research as an alternative method of inquiry in sport psychology, I still felt a strong draw towards the model-testing and theory-driven paradigm that induction offered. I was still inclined to state my arguments in light of testing, gather evidence in support of this position, reflect objectively on the people who participated in my study, decide on their realities, and present a new knowledge and insight. As the process unfolded, I have moved, peregrine-like with the research, to the place I now occupy that offers a different view of qualitative research and the qualitative researcher. The reason I decided to undertake research in the first place was to contribute to the field. Yet, I had (and still have) many questions about the ways past knowledge about stress and performance have been acquired and positioned. The last 3 decades of research has produced a plethora of theories, progress, and understanding into human behaviour in sport, and until recently this knowledge has largely come out of the positivistic research tradition, where researchers seek to provide evidence in support of positions and theories, and to uncover cause and effect. In the information age, our current *Zeitgeist*, I have used empirical evidence, objective facts, and rational science to further what I consider to be knowledge. This knowledge itself is a construction in the context of our times. Far from suggesting that sport psychology as a discipline should begin a Cartesian process of

doubting what we currently accept as accurate, I am striving to consider ways in which my knowledge and understanding of phenomena does (or does not) diminish or subordinate other possibilities. In particular, this research for me has been a beginning point in recognising that athletes will always know and understand more than I do about their own subjective experiences, and it may be possible for me to add value, or help them in their quests for good performances by working with them as a learner, and not just as an expert.

Sport psychology seems to be experiencing something of an identity crisis. As a discipline it has been fortunate enough to have been born of a union of both sport science and psychology. This marriage has many advantages in terms of the sources of information that sport psychologists draw on to work with athletes. There are also challenges in this dual parenting. Sport psychology has been the empirically poor sister in the positivistic sport sciences. It seems that one of the consequences of a constant battle for credibility among the accepted, older sciences in sport has been a drive to produce research in sport psychology that robustly compares with the others, that has methodological credibility and rigour, and that is not seen as loose and soft. The result, to be extreme, is a body of literature that at times fits the complex, fluid, and dynamic workings of people into neat, narrow, and describable boxes. Even when sport psychology research has used qualitative methodology, it seems that the result has often been something of a mixed paradigm, where qualitative questions are asked, and yet a strong quantitative element is retained in the use of verbal factor analysis. Researchers still count the number of times person said something and describe that as a theme, and the more times participants say similar things, the more important they are (Males, 1996;

Potocky, Cook & O'Connell, 1993). The qualitative research model that dominates sport psychology still represents a relatively neo-positivist world-view, and the researcher is presented as little more than a stenographer, shirking in the background, unseen, behind the myth of objectivity. What concerned me particularly about this tradition, as I undertook my research, is that the method seemed to be abstract and divorced from the individuals I was studying. I realised that I could probably manipulate the data well enough to convince the reader that I had made a case, for example, that telic dominant individuals perceived more control over the stress experience when they exerted effort-stress. Or, those individuals in the paratelic state perceived a lack of control over the unknown as less stressful than individuals in the telic state. As I considered what I had been hearing and seeing in relation to theory on the stress-performance relationship, I also had to consider my method. At the outset, I most certainly had a romanticised view of reversal theory as the next big thing in understanding stress and performance in sport. I was the archetypal reversal theory acolyte. In order to allow my position to be established, and to *prove* the theory's utility, I too was reverting to positivistic traditions of cause and effect, under the patina of qualitative methods. I began by narrowing the information and seeking to remove myself from the process, or at best, be superficially present but rely on *hard* evidence to do the talking. I made notes in the margins, counted the themes I could identify, and filtered and categorised my data onto huge pieces of butcher's paper, and did my best to fit the data to the theory. I considered using the qualitative methodology of coding athletes interview responses with the Metamotivational State Coding Schedule (MSCS; O'Connell et al, 1990; Potocky, Cook & O'Connell, 1993) that had been used in reversal theory smoking cessation studies, and

which Males (1996) modified in his slalom canoe studies. This filtering approach was a good example of my early attempts at data-fitting. When I sat back and looked at what was evolving from the exercise, I could not see what was gained from this form of analysis other than greater organisation, and the increased presence of reversal theory terminology versus participants' own language. In a personal communication with Males (June, 2004), he advised me that he had found the method limiting in his study and felt that the tidiness gained was at the expense of some of the richness of his participants' stories. I realised that I was also pursuing my desire to be credible by using a tried and established methodology. I wanted my research to be accepted as adding (in some small way) to the body of knowledge on reversal theory in sport, and in stress in sport, generally.

The study has evolved from a series of realist tales to hybrid realist/confessional ones (see Sparkes, 2002). As I chronicle the history of this study, I see a shift in my own view. I do see the value of using a reversal theory lens as a way of describing and understanding the phenomenological experience of stress in competition. It is one truth; but not the only truth. Over the course of this discussion I will look at the commonalities and differences between the athletes in the study. I will also look at how my original research questions have been addressed and how I see reversal theory as a way of looking at the relationship between stress and performance.

Me in the Research Process: Then and Now.

I write the study up now with myself as one of the central figures, because I was one half of every interaction rather than an observer of what the participants said. Before commencing the interviews, I had considered what questions I wanted to ask that would

give flexibility to the athletes to tell their own stories without being limited by narrow questions. The interviews were semi-structured, and often I did not refer to the questions in front of me, but I still initially approached the discussions as a recipient of information, rather than a contributor to the narrative that arose. Part of my experience through the process has been about stepping outside of the role I had in mind when I commenced, and observing what actually seemed to happen. When I operated in the mode of researcher (as I started out), I withdrew from the relationship to a degree because I focused on the conversation as data, not as human connection. When I focused on the relationship I was establishing with the participants, I heard and learned more about them. I felt that the interactions became richer the more I made conscious efforts to work on the collaborative alliance (see Andersen, 2005, about collaborative empiricism in qualitative sport psychology research).

As in all storytelling, the interpersonal act of telling one's story to another actually creates or modifies the experience of the story. This possibility was apparent to me with Jamie, whom I had to call after one interview because I had failed to record part of the session, as discussed in his case study. It was at this time that I considered that I was interacting with the research rather than controlling it. Again, during the write up of each story, I have grappled with how much interpretation I could overlay, and at times the feedback from my supervisor has been that the analysis is too weak or too light as I present each participant. I had to put less of myself and my biases into the questions I asked, to avoid trying to fit the story into the theory, yet I had to put more of myself into the interpretations in order to represent the experience. The balance remains hard to achieve, but there has been a shift, whereby reversal theory has gone in reverse, and now

occupies a back seat rather than the driving seat in the research. In collaboration with the participants, I drive the research, through what Andersen (2005) has termed collaborative empiricism.

Finding my place in the research process also involved becoming comfortable using the authorial voice, acknowledging my biased world-view in my interpretations, and accepting that I occupied several roles every time I interacted with the participant. I had been much more comfortable approaching the interviews as Grange (2005), the objective and behind-the-scenes researcher, than to consider how I may be perceived as a psychologist-in-training, a counsellor, and a sports person with a personal history. What was expressed during the sessions was not just because it was a research process, but because of the relationship between myself and each participant.

Reversal Theory: Then and Now

I was much enamoured with reversal theory as I commenced this research. It appealed to me on several levels. Most notably in that it allowed for people to have highly successful performances when in various emotional or motivational states, rather than presuming that there was a singular, perfect state that would be optimal for performance. From my own experience, and from working with athletes in an applied setting, this observation made sense. I recount descriptions from a snowboarder of feeling so calm and relaxed she was "almost floating" when she qualified at national level, and then feeling so "pumped and fired-up" that she advised others to stay away from her, when she won a series race soon after. I know from my own experience that I want different things on different days when I perform, and all sorts of factors contribute to that preference, including my level of anxiety. When I do experience anxiety, I tend to

prefer familiarity and planning that allow me to cope actively and acknowledge that I have done it all a hundred times before, and I will be capable. The notion of dominance (in my case, telic dominance) gives room for this adjustment. I also liked the idea that transactional emotions are considered as well as somatic emotions in reversal theory: what you feel will relate to the meaning the situation holds for you and your concern with the outcome, as well as your emotional responses in the moment. Reversal theory initially seemed a refreshing departure from the linear predictability of some of the other models in stress-performance research that have been discussed in the review of literature in this thesis. As with any model describing a system though, there are limitations to reversal theory, and as I examined the on-off/either-or dichotomies implicit in the theory, cracks in my wholesale advocacy began to appear. Reversal theory is cybernetic and extremely digital. For example, arousal is seen to have two dimensions: intensity (how worked up one feels), and hedonic tone (whether arousal is pleasant or unpleasant). From these dimensions, four states are possible and the theory posits that a person is in one state or the other (effectively in digital terms you are a 1 or a 0), and one does not get to be .5 or .78. According to the theory, a person cannot be getting calmer and feeling unpleasant, or approaching boredom and feeling OK, yet intuition and experience tells us that either of those things is possible. The notion of a condition of satiation being adequate to induce a reversal also troubled me. Shifting to another state when one has become sated in the existing state seems reasonable and theoretically flexible, yet it may be too loose to be valuable as a predictor or descriptor of how a person experiences motivation. It is the equivalent of saying “sometimes it just happens.” I remain unsure whether this undermines the detailed explanations of contingent events and frustration as the other

situations that may induce a reversal, or whether it opens yet undiscovered possibilities. At times the theory has seemed simplistic. People are not one thing or another, emotions or states are rarely mutually exclusive, nor are they exhaustive; people are not digital. For me, the appeal of the theory is that on a theoretical level, it covers the agony and delight of one's experiences (both possibly, even in the same experience) yet I would suggest that the structural mechanics of the theory cannot really account for the complexity, contradiction, internal inconsistency, and messiness of the human condition. Reversal theory is, as all theories are, a product of our age – our *Zeitgeist*, and we are in the digital age. When I consider reversal theory as a heuristic or metaphor, rather than an algorithm, it remains appealing as a way of understanding and describing the phenomena of experience.

As my research questions evolved, so did the role reversal theory played in my thesis. It became less central, less of a straightjacket, and therefore more useful, as a tool for observing and analysing athletes' stress experiences in their competitive lives. On reflection, one aspect of reversal theory that seems particularly useful in considering what might provide an antidote to unwanted stress in performance is paratelic protective frames. Although there were only minor examples of protective frames being used by athletes in the case studies presented, the possibility of using or engaging protective frames as a way of defending against anxiety has interesting implications for future research and applied practice, as discussed later in this chapter. In this study, I did not particularly explore protective frames as a topic, or ask probing questions in regard to what they were and what they meant for the participants in relation to coping with stress.

Observations and Discoveries

Stress and Performance: Then and Now

A follows B follows C. Most research in sport psychology has examined the relationship between stress and performance in a linear or causal way. Performance + pressure = outcome. The major focus has been on how stress, described usually in terms of anxiety in relation to performance, affects performance. In this thesis I set out to explore more about what stress meant to the athletes involved, how they interpreted it, how they perceived their responses to stress, and what effects they felt it had on their performance (if any). One theme that came out of the study was that stress on a macro (life) level, did not seem to influence how they raced on competition day. Almost all of the athletes described being able to focus on the race ahead of them and not pay attention to other aspects of their lives that may have been troublesome outside of the race (such as money, scholarships, living arrangements, or relationships). One athlete (Tyson) suggested that he might feel more fatigued than usual, or under-prepared for the race, if he was experiencing stress in life generally, but everything else would be forgotten as soon as he was at the race venue. It is possible that the athletes in the study did not have high levels of life stress generally, but the ability to be consumed totally with performance to the exclusion of all other aspects of life begs the question, what does sport actually mean to these people, that it can cause such stress? What does winning and losing mean to an athlete? How much value is placed on performance and where do the roots of competitive anxiety lie? Are they in the make up of the individual, in the social experiences and evaluations of the individual, or in their dynamic relationships and need to be loved and accepted? How is meaning in the experience associated with mood and

hedonic tone and the ability to control stress responses? Another theme from the research was that I did not see any examples of anxiety being seen as facilitative on the whole (although there were a few comments about a bit of stress being a good thing or stress being as good a motivator as any, nobody talked about the emotion of anxiety (rather than stress), as a positive thing (not surprisingly). Strong arousal, when experienced as anger or excitement, or determination, or competitiveness, was at times facilitative. This raises the possibility that what has sometimes been referred to as facilitative anxiety in sport psychology research (Jones, 1995), is actually parapathic anxiety experienced through the paratelic protective frame, anxiety that is somehow safe, therefore it can be experienced as pleasant, because there is a feeling of protection that is outside of normal experience. Anxiety has at its core fear and dread, and it is difficult to conceive that it could seem pleasant. What may be pleasant is what happens after the fact, after the competition is over and the fear and dread lift, or alternatively that what is being experienced by the athlete in a paratelic state is not anxiety at all.

What already worked? I was also interested in looking at whether the athletes had any useful ways of controlling their states in ways that improved their experiences and their performances. Almost all of the athletes were informal in their use of techniques to manage their arousal or anxiety levels prior to or during a race. Only Tyson described having a structured pre-race routine that allowed him to stay relaxed and focused on behavioural tasks rather than on cognitive intrusions (worry) for the hour leading up to a race. Other athletes were more inclined to follow their past patterns, intuition, or work on trial and error. For example, Robbie talked about preferring to be on his own prior to racing in bigger races because he got too stressed if he listened to everyone around him.

Ella created situations that raised her energy and seemed to allow her to shift from anxiety to anger, which she could manage better. Hayden acknowledged that he coped better when he was distracted from the pending race. It seems that the athletes knew what worked for them in terms of mood, thoughts, and feelings, but they did not necessarily feel that they had much control over the way that they experienced performance anxiety. When they experienced physiological or technical drop-offs in performance, they felt they knew how to respond adaptively (dropping or raising heart rate, ensuring they pedalled in circles and maintained a steady cadence on the bike, adjusting their breathing rhythm, sitting up in the bike pack). They did not, however, describe any tool box of responses for managing their emotional states and controlling escalating anxiety. This observation may have implications for applied practice in sport psychology, as discussed later.

Anger. All of the participants talked about feeling angry during their performances. A common response to things going wrong in a race was either the internal feeling of anger or the overt expression of anger (such as Hayden kicking his bike). In reversal theory terms, anger is an emotion associated with the telic-negativistic state, and anger directed internally would be seen as telic self-negativistic (Braman, 1988) and may take the form of negative self-talk and criticism, such as Tyson described in his stories. Anger directed externally may have several manifestations. In Ella's case, it became a vehicle for raising her arousal level and framing it in a way she knew how to manage. She invested the emotion in working hard and proving herself physically, a strategy that maximised her control, as opposed to her responses to high arousal felt as anxiety, where she felt she had minimal control. She knew how to deal with anger, but anxiety was less

acceptable. Anger may be a good example of sublimation as a form of psychological defence against unwanted emotion. Anger in society is not generally acceptable, and often it seems that athletes bear the burden of having to be poster-boys/girls for the perfect citizen, therefore any show of emotion that is less noble than the Olympic values of altius, fortius, citius, is not acceptable. In reality, anger may be central to people's lives, and to their responses to stress. Aggression, however, is sanctioned to a degree in some sports and nearly required in others. Some sports, such as ice-hockey, provide many examples of sanctioned violence (masquerading as tactics). Kerr (2004) suggested that the telic negativistic state is associated with anger-violence (retribution), and the paratelic negativistic state is more associated with thrill-violence (provocativeness). Less extreme examples of sanctioned aggression abound throughout sport, where it is seen to be linked closely with competitiveness and courage and strength, and consequently revered. For example, in the Australian Rules Football League, one club openly praises aggression as a value they espouse on the field of play, in their club theme song: "We've got the power to win, the power to rule, come on Port Adelaide aggression. We are the power from Port, it's more than a sport, it's the true Port Adelaide tradition."

LeGrand (2003) also showed evidence that best performances were associated with the telic-negativistic state of anger (being "fired-up") for an elite javelin thrower. There may, however, be differences between javelin as an explosive sport, and triathlon as an endurance sport. Given that, on the whole, the participants in this study did not employ structured or formal methods of managing their anxiety, and all expressed feelings of anger, it seems that there are possibilities for using reversal theory methods, such as inducing reversals or psychologically creating protective frames (through

imagery, for example) to redirect or reframe high arousal towards competitive aggression, which may engender a set of feelings that some athletes are better equipped to handle.

Control. The other common theme that all participants spoke about was control. It was the most salient theme throughout all of the discourse in the interviews. Control was used as a form of defence against anxiety, in preparatory behaviours associated with readiness prior to races, and in compensatory behaviours such as active-coping during races. Even the perception of having control, through the exertion of more effort, through making a decision about what was achievable and shifting expectations accordingly, or through deciding that it did not matter, made a difference to the athletes' state. When some of the athletes reversed into a paratelic state, I considered that this shift might be a form of controlling anxiety, a form of defence; excitement or provocativeness may be easier to tolerate. A common way for the athletes in the study to exercise a sense of control was to set and work towards goals. Using goals as a temporary purpose may be one way that athletes achieve a more stable emotional environment. Kerr (1997) suggested that successful athletes exhibit more stable emotional patterns when competing in comparison to less successful athletes, and a key consideration for sport psychologists and coaches should be to work with athletes to learn how to control and manage differing arousal patterns as they arise.

Implications for Applied Practice and Research

Applied Practice

In terms of sport psychology interventions, it appears that successful strategies for managing anxiety would need to include the following elements: insight into what commonly works and does not work for the individual athlete (if the athlete likes to be fired-up, relaxation would be the wrong option); the ability to assess what they need or prefer to be feeling in the moment, while racing; ways of reconnecting with preferred states in the face of a challenge; and a set of skills that helps them achieve their preferred emotional state, which they can draw on when needed. Kerr (1997, 2000) has proposed that both modulating arousal and inducing reversals may be useful reversal theory techniques, which might be helpful in creating the best psychological environment for successful performance. That is, changing the intensity of the salient emotion as well as changing the way the individual approaches the emotion according to their metamotivational state. Reversal theory techniques need not be separate from other methods more widely used in sport psychology interventions (e.g., cognitive-behavioural techniques). In interpreting symptoms of anxiety in the individual, and evaluating coping resources, reversal theory state descriptions and explanations may provide useful metaphors for the human experience. It allows for 180 degree shifts, for polar opposite feelings that may last for a while and then shift again. The metaphor of the pendulum swinging to the full height of one emotion, arresting at the top for a period, and then having to swing back in the opposite direction as a matter of course, could prove useful in explaining why it does not seem possible to stay in one mood for the duration of a whole race, and why this change is not necessarily a bad thing. Perhaps the biggest barrier to

presenting reversal theory to athletes, by way of explanation for the self-phenomena they encounter, is the jargon inherent within it, and it may be useful to consider how one can say the same thing without the complex terminology. Apter's idea of a box of emotions, where the outside of the box is labelled, for example, with anxiety, but inside is a whole array of other emotions that are connected in some ways but different, such as anger, provocativeness, excitement, worry, restlessness, or fear. Using reversal theory as a metaphor for understanding what one feels and what coping resources one might use may enhance feelings of control over stress, in combination with various metacognitive variables such as attributions, cognitive appraisals, perceptions, and cognitive dissonance, in a similar way to the cognitive-behavioural technique of re-framing. If the desired outcome is not necessarily the absence of stress, but rather a better understanding of how different emotions and states influence everyone, a greater sense of control, and belief that one's coping resources will be adequate (self-efficacy), then reversal theory may have much to offer in helping athletes understand their varied and complex responses.

In terms of changing the experience of anxiety, reversal theory can integrate well with other schools of thought including cognitive-behavioural approaches. Kerr (1993) described this integration as "an eclectic approach to stress in sport" (p. 400). Achieving a desired level of arousal, through somatic or cognitive relaxation or visualisation techniques can be done with reversal theory as the heuristic. Reducing the importance, or shifting the meaning of anxiety through cognitive restructuring or re-framing, would be aided by an understanding that it is possible to perform well in various states, even though one state may be less enjoyable than another, or less preferred.

As noted earlier, paratelic protective frames may offer some insightful ways to work with athletes and their experiences of stress. The idea that a psychological state can be found where unpleasant emotions are experienced as pleasant offers much promise. Protective frames mean that you are "safe." One cannot be touched; one is not subject to the normal rules and responses, and they do not necessarily apply at the moment. A protective frame can be associated with a physical space (such as a home ground, or a local venue, places where both Tyson and Robbie felt they were safe), or it can be time-based. It can be when one is in a certain position in the race, or where one believes one is protected from a negative outcome against certain opposition. The use of imagery, self-talk, or visualisation to create a protective frame prior to performance may be worth exploring. A challenge for the applied sport psychologist working with athletes on managing the experience of stress is in finding ways of reconnecting with motivation in the face of challenge. Once a protective frame is broken, the athlete may experience a loss of control as the state shifts, and it may be difficult to get the protective frame back within the same performance. Using the tenets of reversal theory and metaphors (such as the pendulum swinging both away from and towards the preferred state) may give the athlete a sense of optimism that a shift does not necessarily equate to a catastrophe, and the preferred state, if lost, will be available again.

Future Directions for Research

To add to the plethora of sound research on stress in sport, both within reversal theory and in sport psychology generally, I would suggest several areas seem pertinent for further research. First, researchers might explore what performance means to athletes such that it can give rise to a great deal of anxiety both prior to, and within a

performance. This type of exploration possibly gels with the existentialist work currently starting to get some attention in sport psychology (Nesti, 2004). Throughout the study I have consistently come back to the idea that meaning, perception, and interpretation remain central in any understanding of the stress experience. This approach is a departure from the A + B = C linear models discussed earlier. Second, research needs to be directed toward the exploration of what gives athletes a sense control over their experiences. If there is meaning and investment enough to give rise to anxiety, what will help an athlete feel that it is manageable? Can reversal theory offer more insight into how athletes can understand and control their own emotional and motivational responses? Can the theory be expanded and adapted as a counselling tool beyond Kerr's (2001) preliminary work? Third, more exploration into anger as an emotion in sport is needed. What are its origins? Where does it fit in the stress-performance relationship? What role does it play in helping to defend against the effects of anxiety? Finally, research into protective frames as a means of defending against and managing anxiety would be welcomed. Associated investigations into the potential of imagery, visualisation, and other cognitive and somatic strategies in creating protective frames may also prove useful.

For qualitative research to really pack a punch, the researcher needs to genuinely listen to the stories people tell, and be able to help people tell their stories in the way a psychotherapist might (Andersen, 2005). My point is not that researchers need to become psychotherapists, but rather the implication is that qualitative researchers would benefit from knowing the central instrument of research - the self. The counselling skills of reflection, empathy, genuineness, patience and probing all become useful and necessary. The phenomena of transference and countertransference, self-disclosure, resistance, and

defence mechanisms, become part of the dynamic between researcher and participant, and therefore part of the stories. Yet research is not therapy, and the qualitative researcher needs to walk the line between facilitating and exploring with the participant and respecting the shared agreements and expectations between them within the bounds of informed consent.

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APPENDIX A

Consent Form for Participants

Victoria University of Technology

Consent Form for Participants Involved in Research

INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a study into the experience of stress during competitive triathlons. The study proposed here is designed to provide an exploratory and descriptive account of how athletes experience stress, and whether athletes perceive that they have control over how they experience stress. The primary outcome focus of the research is to add to the field of sport psychology in terms of understanding the stress – performance relationship. In addition, the research will provide meaningful data to the participant athletes and their sporting body for further education and intervention around stress management.

The study comprises of two components of data collection; (1) administration of a research questionnaire (SOMIFA – State of Mind Inventory for Athletes) to each participant athlete immediately before each of the races which have been selected for study, and, (2) a series of semi-structured interviews with each participant athlete as soon as possible after each selected race. Specific areas to be addressed at interview include;

- Behaviour and preparation leading up to the race
- Emotions and motivations experienced prior to the race
- Emotions and motivations experienced in the race (reversals)
- Perceptions of stress
- Perceptions of control over stress
- Emotions and motivation experienced after the race

Examples of the type of questions to be asked at interview are: "describe what you were feeling just before the race today" and "was there any point during your performance when you noticed a change in how you were feeling and what you were thinking? Can you describe that". Interviewees will be able to elaborate on any of their responses.

Participants will be elite level triathletes associated with the Victorian Institute of Sport in Melbourne.

Methods used within the study will be; an initial case study interview which looks at the athletes background, sporting experiences, previous experiences and perceptions of stress, and seasons goals. Thereafter, short questionnaire responses will be gathered immediately prior to the identified 6 races. Recorded interviews will be conducted as soon as possible after each of the 6 identified races at either VIS offices ot Victoria University, whichever is most convenient for the participant. Interviews will last on average between 15 and 60 minutes. Interviews will be conducted in a private, closed room and recorded on audio cassette.

The confidentiality and anonymity of all participants will be protected at all stages of the research. While the research focuses on individuals rather than groups, data collected from individual participants will be assigned a code, and information will be reported using this code (for example, 'participant 1, participant 2 etc). No personally identifying information will be used at any time without the participant's consent.

This study is considered to be a low risk undertaking for participants. However, participants will be asked to recall their experiences of stress during competition. For some individuals, this may be distressing. If any participant becomes distressed during or after data collection via questionnaire or interview, they will be given the details of a registered psychologist who will be on hand to offer support and / or counselling throughout the project. All participants will have an opportunity to debrief and ask questions after each interview.

CERTIFICATION BY PARTICIPANT

I**,**
of

certify that I am at least 18 years old* and that I am voluntarily giving my consent to participate in the experiment entitled:

being conducted at Victoria University of Technology by:

Dr. Mark Andersen (Principal Investigator)
Pippa Grange (student researcher)

I certify that the objectives of the experiment, together with any risks to me associated with the procedures listed hereunder to be carried out in the experiment, have been fully explained to me by:

Pippa Grange

and that I freely consent to participation involving the use on me of these procedures.

Procedures:

Audio tape recorded interviews
Questionnaire administration

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this experiment at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the information I provide will be kept confidential.

Signed: **.....** **}**

Witness other than the experimenter: **}** **Date: .....**

.....}

Any queries about your participation in this project may be directed to the researcher Pippa Grange on telephone 0402 140996. If you have any queries or complaints about the way you have been treated, you may contact the Secretary, University Human Research Ethics Committee, Victoria University of Technology, PO Box 14428 MC, Melbourne, 8001 (telephone no: 03-9688 4710).

Revocation of Consent Form

Research Project Involving Human Subjects

Revocation of Consent Form for Subjects Involved in Research

Used for participants who wish to withdraw from the project

I,.....

of (address),.....

.....

hereby wish to WITHDRAW my consent to participate in the research proposal described in the Plain Language Statement for the research study called: Reversal Theory: an investigation into perceptions of control over the emotional experience of stress in competitive traithletes

and understand that such withdrawal WILL NOT jeopardise any treatment or my relationship with Victoria University.

Any data already collected may/may not be included in the research project.

Signature: _____ **Date:** _____

APPENDIX B

Information Sheet given to Participants

INFORMATION TO PARTICIPANTS

An examination of competitive life: Reversal theory

Pippa Grange
Victoria University of Technology

Overview

This research is designed to look at the relationship between stress and race experiences, including performance. Stress has been a much studied topic in sport psychology, as stress, or more accurately, the ability to cope with stress, is considered to be a major factor in sport performance. Of the things we do know about the stress-performance relationship, it seems that stress is multidimensional, it can have positive or negative effects, and may influence individuals in different ways at different times. The current study will look at the actual experience of stress for individual triathletes on a case-by-case basis over a competitive season. Through mapping the motivational state, emotions and experiences of athletes during their races, we can start to see what is experienced, and to an extent, why, but perhaps more importantly, we will also see *how* stress is experienced.

To assist in understanding the stress experiences of participants, the researchers will analyse the data using reversal theory (Apter, 1982, 1989). Reversal theory is the psychological theory of motivation and behaviour. One of the central tenets of this theory is the notion that individuals will switch or reverse their motivational orientations, at times, rapidly and involuntarily; people will be motivated to feel different things according to their state. Perceived stress is considered to be a factor in such a reversal. We are interested in understanding more about whether an athlete perceives he or she has any level of control over their experiences of such stress, and what they do to put themselves in the state they want to experience.

Process

A small pool of six volunteer athletes will be interviewed using a semi-structured format, as soon as possible after 3 of the races they deem to be important for them in the competitive calendar. Interviews will generally last around 60 minutes, but may be slightly more or less.

Most interviews will take place at the (state institute of sport) or Victoria University of technology, whichever is more convenient for the athlete. All information gathered during the interviews and throughout the research will be kept strictly confidential, with access being granted only to the primary and associate researchers. Data gathered will in no way influence selection or coaching decisions. The participant must agree to the release of any information to a third party, in writing. Data described in the thesis will be reported anonymously.

Outcomes

At the culmination of the study, we would like to have 4-5 sets of complete data from the original group of participant athletes. This will be written up as part of a Doctoral thesis.

The primary aim of the study is to contribute to the field of sport psychology, in terms of the way the stress and performance relationship is understood. In an applied sense, the data gathered will be rich in detail with regard to each participants motivational orientations and behaviours, and may prove useful to athletes in managing their own performances later on. The process of reviewing their experiences through interview may also be a learning experience for participants.

Participants

Participants in the study are a group of elite triathletes from the state institute of sport, who are on a scholarship program for 2003/2004. The majority of these athlete will be in training for World Championships, the Commonwealth games, or the Olympics. The group will consist of male and female athletes in the age range of 18-30 years old.

Participation in the study is entirely voluntary and athletes may withdraw at any time.

Commencement

The project is due to commence is September 2003 and interviews will finish in May 2004.

APPENDIX C

Guide for Interview Questions

Q. I'd love to learn a little bit more about you generally. Perhaps we could start by chatting about your involvement in sport, your background, maybe what you have going on this year, and anything else you want to share about yourself, and yourself as a triathlete.

Q. You identified this last race as one which you thought you had a lot of 'emotional investment' in. I'd like to hear some more about that. What was important about it for you? How were you feeling about it?

Q. Tell me about the race.

Q. What kind of mood were you in at the start?

Q. Some people describe feeling pretty much 'in-the-moment', focused on what's happening right there and then, and others describe focusing more on what's coming up, others prefer to take their mind off the race altogether just before hand, it seems to be very individual. How would you describe yourself just before the race?

Q. Can you give me 3 adjectives to describe how you were feeling?

Q. So as the race got underway, what was going on for you? What were you doing?

Q. What was going on in terms of the way you felt in your body?

Q. What was on your mind during the race?

Q. What kind of mood were you in?

Q. What was the main thing you wanted?

Q. Athletes often describe different levels of energy, or intensity, during performance. For example, an athlete might say they felt very ‘keyed-up’ or pretty flat. How would you describe your own energies during the race?

Q. How did this feel for you?

(if pleasant) What was it that was pleasant about it?

(if unpleasant) What would you have preferred?

Q. When you are racing, what does pressure and stress mean to you?

Q. Did you feel anything like that in this race?

Q. What happened to your mood?

Q. What would you have preferred to feel at that point?

Q. Looking back over the race now, what words describe your experience of it?

Q. Would you change anything about the experience if you could?

Q. What did you learn from that race, on reflection?

Q. Tell me about the next big race you have coming up – one that really means something to you?

Q. How has talking about this been for you?