An exploration of the motivationally-relevant behaviours of coaches, parents and peers across the athletic career span.

by

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For Sarah, my wife, and my Mum and Dad

Abstract

This thesis aimed to develop an understanding of the social and environmental influences on athlete motivation, and the way these change across the athlete career span. Study 1 set out to explore the social and environmental influences of coaches, parents and peers on the motivation of young athletes (under 12 years old), at the initiation/sampling stage of their careers. Forty participants (7-11 years of age) from a variety of sports were interviewed in focus groups, using a semi-structured format to investigate the roles played by coaches, parents, and peers in influencing athlete motivation. An inductive content analysis was conducted to determine which behaviours among these social agents influenced key motivational outcomes. The young athletes described motivational influences which showed consistencies with existing models of motivation, but which also expanded upon these models in terms of both the specificity of behaviours identified, and also the comprehensive nature of the findings. The influences of coaches related most strongly to the manner in which they perform their roles of instruction and assessment, whereas parents' influences were most salient in terms of the way they support the child's participation and learning. Both parents and coaches exerted influences through their leadership styles, affective responses and pre-performance behaviours. Peers influenced participants' motivation through competitive behaviours, collaborative behaviours, evaluative communications and through their social relationships. This study provides an insight into the socio-environmental influences on motivation experienced by young athletes, as well as helping to delineate the different roles of social agents in influencing their motivation at this early stage of development.

Study 2 qualitatively examined the motivationally relevant behaviours of key social agents in athletes at the specialising career stage. Seventy-nine participants (9-18 years old) from 26 sports participated in semi-structured focus-groups investigating how coaches, parents, and peers may influence motivation. Using a critical-realist perspective, an inductive content-analysis

indicated that specialising athletes perceived a multitude of motivationally-relevant social cues. Coaches' and parents' influences were related to their specific roles: instruction/assessment for coaches, support-and-facilitation for parents. Peers influenced motivation through competitive behaviours, collaborative behaviours, evaluative communications and through their social relationships. The results were consistent with Study 1 in terms of returning an analysis based around the different roles performed by social agents in relation to the ways that athlete motivation can be influenced.

Study 3 examined the socio-environmental influences of coaches, parents and peers on the motivation of elite athletes. Twenty-nine elite sport participants (15-29 years old) took part in semi-structured focus groups or interviews investigating how coaches, parents, and peers influenced their motivation. An inductive content analysis was performed using a critical realist approach. Coaches and peers were reported to be focal influences, whilst the role of parents appeared to be decreased relative to other career-stages; being limited to emotional and moral support. Themes of feedback/evaluation, and pre-performance motivating behaviours were common to all social agents, whilst the coach-athlete and peer-athlete relationships appeared to be important in mediating and directly influencing motivation. The influences of social agents related to their specific roles: instruction/leadership for coaches; whilst peer-influences revolved around collaborative and competitive behaviours and emotional support.

The discussion chapter took the form of a meta-interpretive synthesis of research findings concerning social and environmental influences on athlete motivation across the career-span. From a total of 124 papers that qualified for initial consideration 45 contributed to the final analysis. This chapter presents models of motivational processes that are intended to contribute new ideas and stimulate thinking in the area. The final analysis proposes a *horizontal structure* relating to athletic career developments, and a *vertical structure* detailing general dimensions of

the overall motivationally relevant social environment. From this, the relative influences of coaches, parents and peers were ideographically assessed, suggesting that the influence of peers grows over the athletic career, whilst the relative influence of parents decreases. Finally, a meteorological model is presented, with a view to facilitating the joint consideration of numerous motivationally relevant variables, reflecting the proposed complex interactivity and interdependence identified throughout this thesis. In this chapter, the term “motivational atmosphere” is proposed in order to represent the extremely broad, complex and interactive nature of the socio-environmental influences on athlete motivation. The thesis concludes with the consideration of the theoretical and applied implications of the studies conducted.

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1 – Introduction

> *Whenever a theory appears to you as the only possible one, take this as a sign that you have neither understood the theory nor the problem which it was intended to solve.*
>
> (Popper, 1972; p.266)

> *It is a good morning exercise for a research scientist to discard a pet hypothesis every day before breakfast.*
>
> (Lorenz, 1937; p. 266).

1.1 - Project background and motivation

This thesis examines the social and environmental factors that may influence an athlete's motivation across the career span – specifically the ways that coaches, parents and peers can influence the motivation of an athlete. The reasons behind this (i.e., the motivation) are briefly summarised in the following passages, before being fully addressed in the sections that follow. Fundamentally, the starting point of this research was a desire to identify the exact motivationally relevant behaviours of coaches, parents and peers and then to build an understanding of the ways that these behaviours may influence motivation.

It is first-of-all important to understand that in the consideration of socio-environmental influences on achievement motivation, one key term dominates. *Motivational climate* is a term derived from Nicholls' Achievement Goal Theory (AGT - Nicholls, 1984, 1989) and is defined as the specific situational and contextual circumstances in which the achievement task is defined (Ames, 1992). Around the time that this project was conceived, there was a debate developing regarding the study of motivation in achievement contexts, stimulated by the attempts of Elliot (1999) to reformulate AGT and its conceptualisation of motivational regulation. AGT had become one of a very select cluster of theories used in explaining motivation in life domains that revolved around some notion of competence and/or evaluation; such as sport, school and exercise. However, Elliot's work (1999, 2005) proposed a change to the most central aspects of Nicholls' conceptualisation. Elliot did not simply suggest a new idea that can be explained by, or associated with, AGT nor did he discover a new situation in which AGT could be applied (these had been the conventional ways of studying achievement goals at the time). Instead, despite AGT

'standing the test' of at least 20 years of research, Elliot proposed that, rather than two possible goals (ways of conceptualising and pursuing some notion of ability or success, or *definitions*), there may be three. And then, by distinguishing between *definitions* and *valence* (the difference between approaching success or avoiding failure), he increased this to four possible goals. Not only this however, but Elliot (1999) specified that achievement goals adoptions should *only* be conceptualised at a pseudo-contextual level (applying at both the state here-and-now level but also in the longer term with regard to the context e.g., goals adopted for one's sport); whereas Nicholls' conceptualisation specified achievement goals existing at three very distinct levels: personality/disposition, socio-environmental context and a momentary goal involvement. Elliot (1999) reasoned that the former two levels-of-analysis could be substantially subdivided into numerous antecedents. In the light of these potential developments to AGT and their implications for motivational climate research, the examination of interpersonal and social antecedents formed a key focus of this research.

In many ways, Elliot (1999, 2005) loosened the monopoly that AGT appeared to have developed regarding motivational climate research; and in doing so he prompted the increased consideration of several other theories (e.g., approach-avoidance motivation, social goals and, to a lesser extent, self-determination/basic needs theory). Elliot appeared to be calling for a deeper, more detailed and more nuanced understanding of how intrapersonal factors interact with socio-environmental factors in determining the situational motivation and behaviour of performers. Whichever perspective one adopts, the above developments suggested that AGT may benefit from research that examines the immediate situational influences on motivation (as far back as 1998, Duda and Whitehead had called for research that attempts to reconcile subjective perceptions of the motivational climate with objective motivationally relevant behaviours). However, whilst AGT-influenced motivational climate research had reached something of a 'plateau' (Harwood, Spray & Keegan, 2008), the other theories that were beginning to enter consideration had also been hampered by a relative dearth of understanding at the situational

level; frequently using correlational and experimental methods without necessarily drawing on a full understanding of the ways that specific aspects of the social environment may shape motivational regulation. To be clear on this point, motivational climate research, as well as research into the other relevant theories listed above, has relied very heavily on questionnaires and correlations (reviewed in Chapter 2). Almost all of the questionnaires concerned seem to precipitate (amongst others) the same two problems: 1) question/item wordings that are necessarily vague and abstract, perhaps as a function of the mathematics involved, but this also serves to guarantee that a very simple general model emerges; dichotomous, trichotomous, or four-factors – rarely more (NB: the mathematics of exploratory and confirmatory factor analyses *requires* parsimonious solutions, which may not reflect the complex social realities being studied); and 2) rather than assessing objective behaviours and occurrences, the questionnaires assess respondents' subjective and generalised perception of how they feel things are done in their team. It would be an extraordinary leap-of-inference to assert that (non-causal) correlations between these abstract subjective perceptions and other (often very similar) questionnaires constitute a strong case for prescribing specific coaching/parenting behaviours– yet this is the current *modus operandi* for investigating (and making recommendations regarding) the socio-environmental influences on athlete motivation.

In response to all of the above and in the light of calls from various authors (Duda & Whitehead, 2001; Harwood *et al.*, 2008; p.167) for "methodological advancements", this research programme deployed a qualitative methodology in order to detect, capture and respond to the complex, interactional and often contradictory phenomenon that is the socio-environmental component of sport motivation. Several authors extol the virtues of qualitative research in sport psychology (Culver, Gilbert & Trudel, 2003; Strean, 1998) but in the above situation, if one is dissatisfied with questionnaire-based research, the options are surprisingly few: 1) invent a new questionnaire (but why would you do this when so many exist, and you are almost guaranteed to generate many of the same problems?), 2) conduct carefully designed

experiments comparing the outcomes of one treatment to another (but where does our knowledge of what to manipulate come from if our questionnaires (and theories) are necessarily quite abstract? At what point is a carefully designed experiment relegated to 'changing things to see what happens'?), or 3) conduct a thorough participant observation, collect as much information together on a topic as possible and then begin sorting through it looking for commonalities and trends (i.e., qualitative research). This too can be problematic, but at least such problems would be new – as opposed to knowingly starting a research project mindful that the many of the same questions as before will remain unanswered. Additionally, in qualitative research, when problems are identified they are very rarely 'glossed over' or simply acknowledged as limitations before compelling conclusions are nonetheless offered. Instead, qualitative research offers the opportunity to identify problems during data collection, and go back to ask more questions – both directly to the participants and also of the data, or of other colleagues and co-workers. Whilst this by no means generate 'error-free' research, it does allow a transparent, 'warts-and-all' account to be cautiously offered, explicitly aware of its faults and so tentative and restrained in its assertions. Such an approach may even permit a less piecemeal, more coherent picture to emerge, by forcing the researcher(s) to understand and declare the limitations of their findings, the implications of this, and possible routes for progress. Whilst it is absolutely not a panacea, qualitative research might be thought of as under-represented in motivational research; and so it may offer new insights and ideas for consideration.

At this juncture, it is also necessary to highlight another key issue in motivational research, the over-representation of secondary school and college/university athletes. However, this also represents a potential problem. The vast majority of motivational research in sport uses 17-25 year old collegiate athletes, excluding for the main part both very young athletes and elite athletes. This has also prevented the development of understanding regarding what factors may influence the motivation of these athletes, as it certainly should not be assumed that the same factors that are operative in collegiate athletes can be generalised to very young or very talented

athletes. It is also possible that different aims of participation, different relationships with social agents and different resources and support structures may all lead to quite different patterns of motivational influence. Hence, another feature of this research was the consideration of socio-environmental influences on motivation at different career stages.

1.2 - Aims and objectives

This thesis examines a broader conceptualisation of socio-environmental influences ('motivational climates') than much of the previous literature, and this is approached by working from the ground-up, from data towards theory, by identifying specific behaviours that are relevant to influencing motivation. Identifying these behaviours across the athletic career, across social agents and beginning to ascertain their motivational impact (at different career stages) were all important aims at the outset. The project focuses on coaches, parents and peers as highly salient social agents in the sporting context and whilst other potential influences (such as the media and national culture) cannot be ruled out, the motivational literature focuses on these social agents, especially the coach/instructor, and so the bridging of theory-to-practice for these three social agents was addressed in the first instance (the current understanding of how these social agents influence motivation is reviewed in 2.8.1).

The primary aim of this project was to identify the specific behaviours of coaches, parents and peers that athletes perceive to be motivationally relevant. Secondary to this, was the aim to understand how these behaviours and interactions differ during the course of the athletic career. The objectives were pursued with a view to facilitating a fuller understanding of how social and environmental factors may actually influence athlete motivation, in terms of effort, persistence, enjoyment, task choice etc. Not only would such knowledge increase researchers' ability to deploy and test theories of motivation, but it may also allow practitioners to be more specific in making recommendations based on the current state-of-knowledge on motivation research. For example, the well-supported advice that one may offer a coach: "try to create a mastery climate and reduce the performance emphasis" is literally easier said than done at this time. Any research

that allows researchers and practitioners to 'flesh out' this advice – with specific exemplars and contextual descriptions of what-works-best-in-what-situation – could be argued to represent a meaningful contribution to motivational research and sport psychology as a whole.

1.3 - Route-plan/overview

In Chapter 2, this thesis begins with a comprehensive review of the literature which details four of the main theories of motivation in sport, and their conceptualisation of the social and environmental contributions to athlete motivation. As much as possible, theoretical tenets are detailed and research assessing these is presented and reviewed. This provides an important background for the studies that ensued; their conduct, findings and significance. Following this, Chapter 3 details the philosophical and methodological underpinnings of the project, before progressing to formulate the specific method used in studies 1, 2, and 3 (Chapters, 4, 5 and 6, respectively). Chapter 4 is a qualitative, focus-group based study of what young athletes (at the 'initiation/sampling' stage of their careers) perceived to be motivationally relevant from their coaches, parents and peers. Chapter 5 replicates the previous study, except with youth and adolescent athletes at the 'specialising' stage of their careers (dropping from many sports to one and training more frequently and deliberately). Chapter 6 examines a population of elite athletes, ranging from Olympic swimmers to Premiership footballers, again asking the question: "how do coaches, parents and peers affect your motivation?"

In Chapter 7, the above three studies are reviewed and synthesised *in relation to the existing literature in this area* – using the meta-interpretation technique (Weed, 2006). Here, and only here, is the author able to offer a more complete overview of the way that motivational influences change and evolve across the athletic career-span. The outcomes of this process include a heuristic model for the study of socio-environmental influences in sport. Finally, in Chapter 8 a selection of potential conclusions, future research directions, and implications for both theory and practice are offered for consideration.

2 – Literature Review

> *When I speak of reason or rationalism, all I mean is the conviction that we can learn through criticism of our mistakes and errors, especially through criticism by others, and eventually also through self-criticism. A rationalist is simply someone for whom it is more important to learn than to be proved right; someone who is willing to learn from others — not by simply taking over another's opinions, but by gladly allowing others to criticize his ideas and by gladly criticizing the ideas of others. The emphasis here is on the idea of criticism or, to be more precise, critical discussion. The genuine rationalist... ...is well aware that acceptance or rejection of an idea is never a purely rational matter; but he thinks that only critical discussion can give us the maturity to see an idea from more and more sides and to make a correct judgement of it.*
>
> (Popper, 1999; p.145)

2.1 – Overview of the chapter

In the consideration of how social and environmental influences may affect the motivation of athletes, across the career span, it may be helpful to define and delineate some of these important concepts. As soon as that is established, a number of theories of the way human motivation operates, or is regulated, also become relevant. These include achievement goal theory (Nicholls, 1989), Trichotomous (Elliot & Church, 1997) and 2x2 achievement goals (Elliot & McGregor, 2001), self-determination theory (Deci & Ryan, 1985, 2000), and social goals (Urdan & Maehr, 1995; Wentzel, 1993). Hence, this literature review seeks to overview and synthesise the current knowledge base into a foundation from which informed research can be constructed. Firstly, the concept of motivation, and its historical development, is outlined and explained, with key definitions provided. Secondly, the broadest and most inclusive theory is overviewed and explained: Deci and Ryan's self-determination theory (SDT). This represents the closest attempt at a grand-unifying theory of human motivation. SDT will be presented both in terms of its contribution to the way motivation is conceptualised/measured and the way motivation is determined/regulated. Thirdly, achievement goal theory (AGT) is described and its history and development are traced. AGT has made a significant contribution to the study of human motivation in achievement contexts, and also offers a specific model of social and

environmental influences on motivation in the form of 'motivational climate' (Ames, 1992). Fourthly, approach-avoidance theory is described and explained; its historical development as well as attempts to reconcile it with AGT are described and analysed. Fifth in this sequence, the contribution of social goals, and their derivation from AGT is examined and explored, and throughout these sections an assessment is made of the way in which these theoretical mechanisms and constructs might contribute to an analysis of the ways in which social (interpersonal and inter-group) and environmental (properties of the environment such as the nature of the sport, resources available, career stage, etc.) influences can be motivationally relevant/impactful. Finally, an overview is given of research that examines the athletic career progression, such that developmental changes in the socio-environmental influences on motivation might also be captured and considered. At the end of this chapter, current issues in climate research are reviewed and discussed (adapted from Harwood, Spray & Keegan, 2008). During this coverage, the important issues in the study of social and environmental influences on motivation are made clear and their relevance to the current research is assessed.

2.2 - A brief history of the study of motivation

2.2.1 – Defining motivation

Motivation is one of the most discussed constructs in psychology, both in scientific study and lay interpretations. Deci and Ryan (1985) succinctly summarise that motivation concerns the 'why' question in behaviour, while the title of Deci's (1995) paper coined a glib but highly appropriate definition: "why we do what we do". In this interpretation, motivation refers to the reasons behind a behaviour, or absence of behaviour. In contrast, according to Maehr (1984), the study of human motivation "begins and ends with the study of behaviour" (p. 132). This is

because, to date, scientists have been unable to design and produce a 'motivation-o-meter', meaning that an individual's motivation must be *inferred* by measuring behavioural indices such as: i) attention, ii), effort, iii) choice of behaviours (and levels of challenge), iv) likelihood/consistency of behaviours, v) persistence following difficulty/failure, vi) bodily/facial expressions and vii) enjoyment, which *taken together* closely reflect the ideas that motivational researchers have used to operationalise motivation (Atkinson & Birch, 1970; 1978; Bolles, 1975; Eccles *et al.,* 1983; Ekman & Friesen, 1975). Historically, however, merely studying human behaviour proved problematic, and the emergence of theories to infer what *processes* occur in order to produce motivated behaviours became necessary.

2.2.2 – Behaviourism and physiological needs

In the early days, internal processes were believed to be simple physiological needs which could be inferred by manipulating inputs and observing outputs (i.e., classic behaviourism). However, this approach could not account for apparently spontaneous behaviours that were exhibited with no apparent relation to physiological needs – examples include play and exploration. Likewise, the behaviourist approach could not explain highly complex behaviours, such as the learning and production of language. Despite being fatally flawed, behaviourism was the beginning of a vast and growing literature on human motivation and represented the first attempts to systematically study human behaviour (Skinner, 1953; Watson, 1913). However, in conceptualising human motivation as purely 'mechanistic' – based on physiological needs and responses – the behaviourist approach failed to incorporate the complicated cognitive processes occurring between 'input' and 'output'. To try and address this criticism, a number of 'instincts' were hypothesised to explain such behaviours, including suckling, play, locomotion, socialising (James, 1890) or explore, fight and 'mother offspring' (McDougall, 1926). The list of 'instincts'

necessary to explain all human behaviours grew exponentially, perhaps reaching 6000 (Bernard, 1924; Dunlap, 1919). Additionally, a tautology was identified wherein 'instinct' arguments tended to explain a behaviour by naming an instinct after it. For example, the statement: "People are aggressive because they have an instinct to fight" does not actually explain why the behaviour occurred or why the instinct exists. As such, it became clear that human motivation could not be adequately explained by instinct theories or physiologically derived drive theories – it simply proved too complicated for such explanations.

2.2.3 – The cognitive era

In the 1930's, Tolman promoted the idea that unobservable variables (or cognitions) played a mediating role between stimulus and response (Tolman, 1932). As such, humans were believed to have complete control over their behaviours; meaning behaviours are deliberate choices based on the processing of information from internal (e.g. memories) and external (e.g. situations) sources; so called 'free-will'. This approach was conceived as managing/controlling a constant flow of motivation – for example "Sound motivational theory... should assume that motivation is constant, never ending, fluctuating and complex and that it is an almost universal characteristic of practically every organismic state of affairs" (Maslow, 1954; p.69). From this perspective, the ground was laid to conceptualise cognitive processes as the central determinant of motivated action, examining how the individual deployed and managed their motivational resources. Weiner's (1990) review described how the main cognitive theories of motivation are based on interrelated cognitions, such as causal attributions (e.g. Weiner, 1985), self-efficacy (e.g. Schunk, 1991; Pajares & Miller, 1994), goals (Locke & Latham, 1990), expectations (Seligman, 1975) and subjective task values (e.g. Wigfield & Eccles, 1992). However, in order to produce testable hypotheses and explainable results, researchers using a purely cognitive approach tended to

emphasise one particular aspect of motivation over another, losing generalisability and explanatory power (Wigfield, Eccles, & Rodriguez, 1998). For example, the majority of cognitively-derived motivation research manipulates variables such as success and failure feedback (Weiner, 1990), ignoring other variables (Reeve, 2009). The cognitive approach has also been criticised for failing to readily explain *why* a person may want to achieve and succeed, and for not systematically addressing the value attached to such outcomes (Roberts & Treasure, 1992). A cognitive approach can also be argued to assign too much determining power to the individual, and not enough to 'inputs' (Elliot, 2005) or external variables (social norms, etc.). Put simply, a purely cognitive approach became too concerned with describing internal processes and forgot the original question of *why* (Deci & Ryan, 1985; 2000), which concerns outcomes and their associated values. In order to understand more about why behaviours are undertaken, it became important to understand how we come to define success and failure ('competence'), and how we learn the value of these outcomes – through social processes.

2.2.4 - The social cognitive approach

The term 'social cognitive' covers a wide conceptual area, and as such many theories have been included under its remit. Fundamentally, the approach assumes that: "…variation in behaviour may not be the result of high or low motivation, as has been assumed in previous theories, but rather the manifestation of different perceptions of what is the appropriate goal *within that social context*." (Roberts, 1993; p.416 - italics added). Reeve (2009; p.43) gives an even simpler definition: "ways of thinking guided by exposure to other people". Hence, motivation – seen as effort, persistence, behavioural choice, preferred level of challenge and enjoyment/immersion – is not merely a function of satisfying some innate appetite, nor is it determined by a simple process of perceiving and processing information in the brain, but rather,

motivation is a function of: a) situational task requirements (e.g. the specific achievement domain), b) their perception and processing by the individual, c) socially learned ideas about the values of possible task outcomes and also d) the immediate social indices of value in the possible task outcomes. Whilst all of these levels can be examined separately, a fuller understanding will come from examining all the levels together and their interactions and combinatory influences (Elliot & Thrash, 2002; Nicholls 1984; 1989). This combination of influences also seems to reflect both the 'evolutionary baggage'; accumulated as scientific thinking progressed from mechanistic, through cognitive to social-cognitive theory; and also an increasingly central role in the study of motivation for the idea of *how* valuable/desirable outcomes are defined (e.g., demonstrating ability/competence/success - Duda & Whitehead,1998; Elliot & Dweck, 2005). As such, the social cognitive perspective gave rise to a wide variety of 'mini theories' (as opposed to grand unifying theories) – each addressing particular domains of activity, such as work (Locke & Latham, 1984), school (Weiner, 1979), coping with stress (Lazarus, 1966) and dealing with depression (Seligman, 1975). In each instance, the ways in which success/failure were defined, and then pursued/avoided became central considerations. Even in recent work regarding academic (and sporting) achievement contexts, Elliot and his colleagues (Elliot & Dweck, 2005) have highlighted the importance of placing competence at the centre of the achievement goal concept (note: not the entire study of motivation in sport). A key theme seems to emerge across all these research programmes and theories, pertaining to the ways in which un/desirable outcomes are defined and then pursued/avoided. Before moving on to discuss the ways in which motivated actions are defined and/or valenced (e.g., as desirable or otherwise), it is first useful to examine the ways in which motivation itself is conceptualised, measured and studied – such that we may understand what it is that the coaches, parents and peers of athletes in this project are

influencing.

2.3 - Conceptualising and measuring motivation

In its broadest sense, motivation has been defined as: "the hypothetical construct used to describe the internal and/or external forces that produce the initiation, direction, intensity and persistence of behaviour" (Vallerand & Thill, 1993; p.18). This definition emphasises two key points. Firstly, that motivation is hypothetical – it cannot necessarily be thought of as real or independently observable. The following discussion of how motivation is conceptualised and measured will reinforce this point. Secondly, a key component of motivation is the "external forces", and yet these forces are arguably very difficult to define and measure; a point which has arguably led researchers to focus on evaluating participants' (sometimes abstract) perceptions of external influences, rather than the social and interpersonal aspects of the environment that might be considered to constitute an "external force". This project aims to: 1) identify and understand these external forces, 2) in as full and comprehensive a manner as possible. To achieve this second aim, the influences of coaches, parents and peers are studied concurrently at three different career stages, in an attempt to examine how the influences of these key social agents differ between each other and across the lifespan.

Deci and Ryan's (1985; 2000) SDT, which is actually a meta-theory containing four sub-theories, makes two important contributions to the study of motivation. Firstly, it provides researchers with a conceptualisation of 'good', 'bad' and 'non-existent' motivation – in the forms of intrinsic regulation, extrinsic regulation, and amotivation, respectively. SDT also posits several levels in-between (Ryan & Connell, 1989; Ryan & Deci, 2000; 2002); these will explained shortly (this section), and these aspects of SDT are explicitly derived from Organismic

Integration Theory (OIT - Deci & Ryan, 1985; 1991). Secondly, SDT offers a mechanism/model of the ways in which motivation can be influenced. This mechanism takes the form of three psychological needs (Basic Needs Theory – Deci & Ryan, 1985, 1991), which can be met in a number of different ways by the environment and the individual's interaction with the environment. Like food and water, these needs are no sooner satiated than they become salient again shortly afterwards and, like food and water, environments which do not allow the individual to cater for these needs lead to maladaptive consequences. Deci and Ryan are relatively candid in outlining that, in meeting or undermining these needs, the interaction between person and environment can be relatively complex (a "person-environment dialectic" - see below, section 2.4.1). Whilst they are packaged up into a single theory at times, the conceptualisation/measurement aspects will be discussed here, followed by the proposed mechanisms of motivational regulation.

As already discussed, motivation is relatively difficult to "see", and whilst a range of behaviours and facial/bodily expressions can be assessed, it would be almost impossible to reliably capture these in a way that was consistent between participants and observers. Instead, research has focused on designing and validating questionnaires to measure subjective perceptions of motivation, and these have generally supported a conceptualisation based around the amount of external inducement required/perceived in order to complete a given task, or participate in a certain activity (Vallerand & Fortier, 1998). On the one hand, *intrinsic motivation* can be defined as the impetus to perform and activity for its own sake – for the pleasure and satisfaction inherent in participating in a task (Deci, 1975; Deci & Ryan, 1985) – i.e., no external inducement is required (or perceived). On the other hand, *extrinsic motivation* (or more specifically, *external regulation*) refers to engaging in an activity as a means-to-an-end and not

for its own sake (Vallerand & Fortier, 1998), or instrumental behaviours, which are motivated by expected outcomes or contingencies (inducements) not inherent in the activity itself (Ryan & Deci, 2007). In addition, SDT conceptualises a state of *amotivation* – not having any intention or energy directed towards action – and also several different levels/types of extrinsic motivation, including: *introjected* (avoiding external disapproval, seeking external approval); *identified* (relating to internally held but learned values/contingencies); and *integrated* (relating to behaviours that have become so internalised that they can be deemed to satisfy psychological needs). Behaviours that are more intrinsically motivated will continue even after the 'ends' associated with them are achieved (e.g., continuation of exercise after achieving desired target(s) – Vallerand, 1997). They will also produce experiential rewards such as enjoyment and pleasure, as opposed to palpable external rewards (money, approval, etc. – Berlyne, 1971; Deci & Ryan, 1985). As such, intrinsically motivated behaviours also carry improved longer term outcomes, as they are strongly associated with pleasure, enjoyment and positive subjective experiences, and very rarely associated with perceptions of pressure, tension, anxiety, or undermined personal autonomy – yet the opposite is apparent for more extrinsic forms of motivation (Frederick-Recascino & Ryan, 1995; Vansteenkiste, Soenens & Lens, 2008).

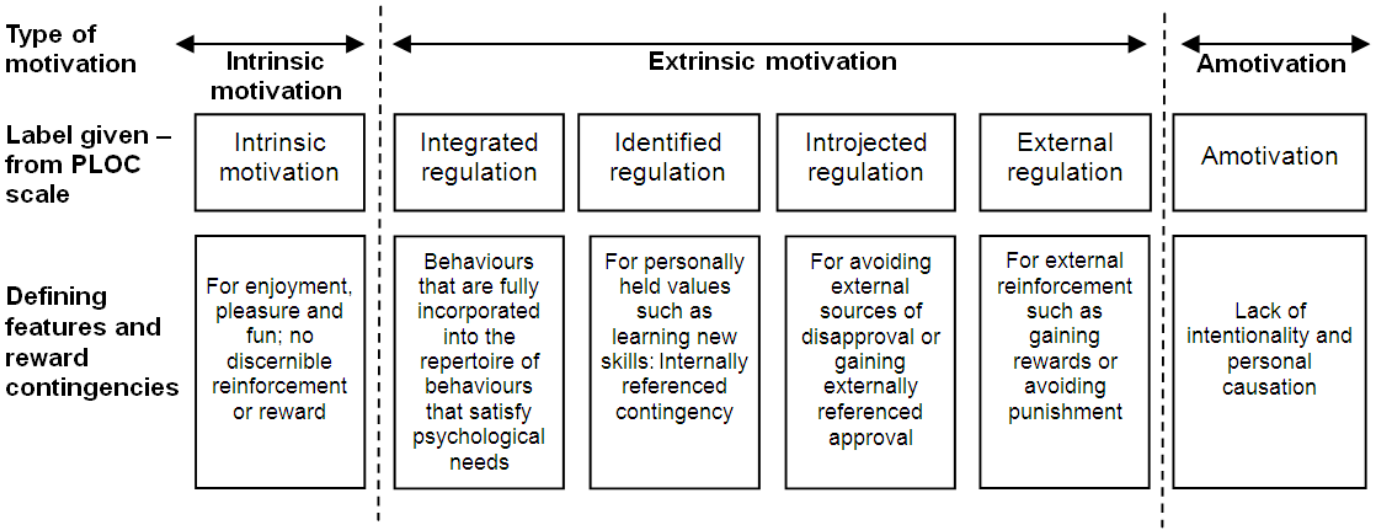


Figure 2.3.1: Deci and Ryan's taxonomy of motivational regulations. Adapted from Ryan & Deci (2008; p.8)

The above conceptualisation of motivational regulation types raises several questions in relation to measurement. Firstly, do these different forms of motivational regulation represent a single uni-dimensional continuum (e.g., intrinsic = 10/10, amotivation = 0/10), or can they all be experienced, to different degrees, simultaneously (the multidimensional approach – Deci, 1975; Harter, 1981). Research consensus seems to support the multi-dimensional conceptualisation by demonstrating factorial independence, and different profiles of antecedents and consequences for each form of regulation (Deci & Ryan, 1991; Deci, Vallerand, Pelletier & Ryan, 1991; Vallerand, 1993; 1997). To further complicate this issue, there are also questionnaires containing three different forms of intrinsic motivation (to know, towards accomplishment, and to experience stimulation – Pelletier *et al.,* 1995; Vallerand *et al.,* 1992; 1993). This range and complexity in forms of motivational regulation means that researchers wishing to measure motivation using these questionnaires must choose very carefully between available questionnaires, in relation to what they are trying to detect. For example, an experiment comparing the effects of reward structures in a boring task is unlikely to require the differentiation between three forms of

intrinsic motivation.

A second question relates to the level of generality at which the constructs of IM/EM are measured. Are intrinsic (IM), extrinsic (EM) and amotivation (AM) properties of the individual in general (i.e., personality), are they relevant to specific tasks/activities, at certain points in time, or are they measured in relation to contexts (e.g., generally on this team, or in this class)? In designing the Hierarchical Model of Intrinsic and Extrinsic Motivation (HMIEM), Vallerand (1997; 2001) specified that these construct exist at all three levels: *global* (e.g., personality/orientation), *context* (distinct spheres of activity, such a school, sport, relationships), and *situational* (the motivation experienced whilst currently engaged in an activity). In principle, global and contextual measures should be expected to exhibit a good degree of temporal stability (test-retest reliability), whereas situational measures should not. Partly as a consequence of this, the vast majority of questionnaires for measuring intrinsic and extrinsic motivation are designed to assess the contextual, or quasi-contextual, level (e.g., Intrinsic Motivation Inventory - McAuley, Duncan & Tammen, 1989; Sport Motivation Scale – Pelletier *et al*., 1995; The Motivational Orientation in Sport Scale – Weiss, Bredemeier & Shewchuk, 1985) – because test-retest reliability is a highly valued property for questionnaires (Rousson, Gasser, & Seifert, 2002), which seems to rule out situational measures (in fact, a scale that claims to have test-retest reliability is arguably not a situational measure at all). Additionally, global measures are rare because personality/orientation type scales have already been developed in different spheres and represent close analogues of what a global intrinsic-extrinsic scale might measure (Vallerand & Fortier, 1998).

It is in this regard that the measurement of motivation still exhibits some divergent ideas and inconsistencies. For example, the IMI (McAuley *et al.,* 1989) does not return measures of

IM and EM, but rather subjective ratings of interest/enjoyment, perceived competence, pressure/tension, effort/importance, perceived choice, value/usefulness and relatedness – with the latter three subscales being deployed much less frequently. As a general tendency, interest/enjoyment is taken to represent IM, whilst pressure/tension is taken to represent EM, but this is not strictly in accordance with the conceptualisations of IM and EM given above. Other measures, such as the Task Reaction Questionnaire (TRQ – Mayo, 1977) have also been criticised for including items that refer to determinants (e.g., perceived competence) and consequences (e.g., concentration) of IM, as well as not offering any indication of the scales factorial structure (Guay, Vallerand & Blanchard, 2000; Vallerand & Fortier, 1998). The IMI contains exactly the same problems, and both Deci and Ryan (1987) and Markland and Hardy (1997) warn against confounding antecedents, motivational states and consequences into a single measure, not least because they almost guarantee positive results (i.e., significant findings) without necessarily allowing researchers to differentiate between causes and effects. Guay *et al.* (2000) developed the Situational Motivation Scale (SIMS) to try and overcome some of these issues, but even then only 4 (intrinsic, identified, external and amotivation) out or 6 possible subscales emerged (integrated and introjected were missing). In addition, the questionnaire method still requires participants to stop what they are doing to fill it in, presumably interrupting the motivated state and forcing participants to reflect on, and therefore change, their motivation. Measuring motivation at the situational level of generality is necessarily complicated, and perhaps even impossible if the rigours of validity and reliability are to be fully applied. Upon reviewing the various scales available, it becomes clear that there is very little consensus on the best way of measuring IM/EM, especially when considering the levels-of-generality, life domains (work, school, sport), and cultural/linguistic differences. By way of emphasising this

point, Meyer, Faber and Xu (2007) reviewed the various questionnaires that have been used in the study of motivation between 1930-2005, identifying 230 questionnaires relating to the measurement of motivation, 155 of which were specifically for measuring motivation in some form. In summarising this section, a case can be made that arguments surrounding measurement issues (validity, reliability etc.) and domain relevance (e.g., the workplace, academic settings, sport settings) have contributed to a degree of disarray in the conceptualisation and measurement of IM/EM. The sheer number and variability of scales available contributes to a degree of incompatibility between findings – a point first noted by Murray (1938):

> Some use physiological techniques, others present batteries of questionnaires. Some record dreams and listen for hours to free associations, others note attitudes in social situations. These different methods yield data which, if not incommensurate, are, at least, difficult to organise into one construction (Murray 1938; p.6).

The heavy use of questionnaires and correlations (including structural equation modelling, multiple regressions, mediation analyses etc.) has also been criticised by Harwood *et al*. (2008) as problematic and often uninformative. By way of concluding slightly more optimistically, the current research project does not rely on these questionnaires, but rather this review of IM/EM has been conducted in order to establish a theoretical framework for the study of motivation. By understanding how motivation is conceptualised, observed and experienced, it becomes possible to make better informed appraisals of how coaches, parents and peers may influence motivation. Interview questions (and subsequent analysis) regarding motivational influences may assess not only the things that athletes believe help them to exert effort, persistence, enjoyment and challenging task-choices, but also those behaviours/influences that athletes feel help them to feel intrinsically motivated (or lead them to feel extrinsically motivated and/or amotivated). Notably,

all of the following theories addressing the mechanisms for determining motivation have been quite consistently linked to measures of IM/EM, and so in addressing how the behaviours of social agents may affect athlete motivation, it is necessary to understand both what is meant by motivation (above), and also the mechanisms through which motivationally relevant behaviours may influence this motivation (below).

2.4 – Self determination theory – mechanisms and models

2.4.1 – Overview of self-determination theory

As noted previously, SDT is actually made up of four theories – Organismic Integration Theory (OIT), Causality Orientation Theory (COT), Cognitive Evaluation Theory (CET) and Basic Needs Theory (BNT). OIT refers to the above-explained conceptualisation of motivation in terms of the degree to which the motivated behaviour is perceived to originate from internal sources, or from external inducements. COT refers to a general stable tendency of individuals to act in either autonomous or controlled ways; i.e., the extent to which people's behaviours emanate from themselves, or whether they depend of rewards, deadlines, and externally construed values in order to generate action. Alternatively, if neither tendency is present, the amotivation is likely to dominate (Deci & Ryan, 1985). As Weiss and Amorose (2008) summarise: "COT represents one of the least studied portions of the SDT framework in the context of sport and physical activity" (p.136), perhaps not least because the attention of researchers studying this seems to be drawn to attribution theory (Weiner, 1986) which is very similar and arguably more expansive, including a broader explanatory framework, and addressing both trait (orientation) and state conceptualisations. CET refers to the social-cognitive developments in motivational research, emphasising the subjective meaning (*functional*

significance – Deci & Ryan, 1985) attributed to tasks, environments and interactions, specifying that this perceptual-cognitive process will ultimately determine the impact of such external events. CET emerged from an expansive body of research into feedback and rewards which had often produced contradictory findings, for example rewards/positive feedback undermining motivation. This led researchers to re-examine individual differences in terms of orientations, preferences, and needs leading to a re-emphasis on the cognitive processes in motivation. Finally, BNT posits three basic psychological needs; competence, relatedness and autonomy. *Competence* represents "a need to feel effective in dealing with and mastering one's environment" (Markland & Vansteenkiste, 2008; p.91; Harter, 1978; White, 1959). *Relatedness* refers to "a concern about connections with others and the quality of our interpersonal relationships" (Allen & Hodge, 2006; p.268; Ryan, 1993), whilst *autonomy* refers to the degree to which athletes "engage in the activity for their own valued reasons and feel that they have freely chosen to be involved" (Allen & Hodge, 2006; p. 267); or as DeCharms (1968) denotes: the desire to be self-initiating in the regulation of one's actions. Deci, Vallerand, Pelletier and Ryan (1991) summarised their position, that: "motivation, performance, and development will be maximised within social contexts that provide people the opportunity to satisfy their basic psychological needs for competence, relatedness, and autonomy" (p. 327-328 – also specified in Ryan & Deci, 2008; p.13). To the extent that social contexts do not allow satisfaction of the three basic psychological needs, they will diminish motivation, impair the natural developmental process, and lead to alienation and poorer performance. In addition (although perhaps not mutually exclusive), Deci and Ryan (1985; Ryan & Deci, 2000; 2002) propose that humans have innate tendencies towards psychological growth, integration of the self and behavioural self-regulation, including a tendency for behaviours to progress towards to integrated end of the spectrum if environmental conditions are conducive. A

particular aspect of this theory that has remained relatively unexplored is the person-environment dialectic or "organismic-dialectic" (Deci & Ryan, 2000; p.228 – illustrated in Figure 2.4.1). This denotes a continual interaction between an active, integrative human nature and social contexts that either nurture or impede the organism's natural needs/tendencies. The dialectical view was reached following tensions between the humanistic and cognitive theories, which place an emphasis on intra-individual difference, and the behavioural/situational theories which place an emphasis on 'inputs', such as stimuli, rewards, punishments, contingencies etc. (Ryan & Deci, 2002). According to SDT, the problem cannot be fully addressed by either approach, but rather by considering the ongoing interactions between the two. This postulate of SDT remains theoretically plausible, but has rarely been explicitly addressed in research as it is difficult to envisage a methodology that might adequately evaluate such a complex system (although it has been examined in other areas, e.g., Mischel, 1968).

As already alluded to, OIT and BNT arguably represent the most significant and most researched aspects of SDT. COT has been paid quite little attention (for reasons described above), whilst CET has been quite widely researched, but is often less associated with the SDT label, addressing as it does, aspects of feedback and rewards. Overall, research into CET seems to be supporting the above stipulation that the degree to which environments, tasks, interactions and relationships support/deny athletes' basic needs will determine the effects on motivation (Weiss & Amorose, 2008). As a result of this analysis and to comply with general usage in the literature, SDT will hereafter be used to refer to BNT, while IM/EM will be used to refer to OIT and the way in which motivation is conceptualised/measured.

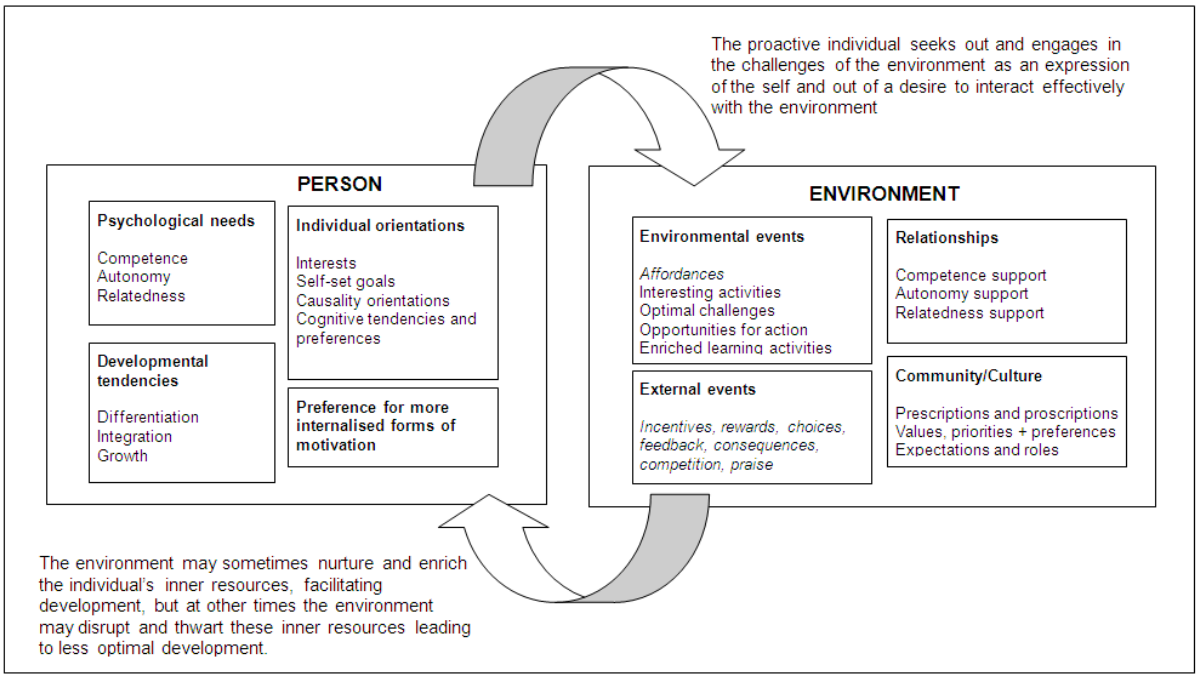


Figure 2.4.1: The person-environment dialectic framework introduced in SDT (Deci & Ryan, 1985; 2000). Adapted from Reeve (2009).

2.4.2 - Research into SDT – the effects of supporting psychological needs: Reviews such as Reeve (2009), Vallerand (2007) and Weiss and Amorose (2008) demonstrate that when athletes perceive their psychological needs are being supported, the results are almost universally positive in terms of producing more self-reported intrinsic motivation, and producing positive affective and behavioural responses. Vallerand (2007) reviewed this research in relation to how it had been conducted at three different levels of analysis: situational, contextual and global, whereas Reeve (2009) chose to review the literature in relation to the ways in which autonomy, competence and relatedness needs could be supported, respectively. In contrast, Weiss and Amorose (2008) attempted to briefly summarise the literature in relation to coach, peer and parent influences, but this was perhaps the most ambitious classification system, as the research available only facilitated the presentation of general themes and ideas, as opposed to a comprehensive review of the influences and effects of each social agent. This provides additional

justification for the current project, which may provide a fuller understanding of the specific behaviours, and patterns of behaviour that may support/frustrate psychological needs.

Even within the broadly consistent SDT literature occasional caveats exist, such as the interesting research conducted by Kast and Connor (1988), Pittman, Davey, Alafat, Wetherill and Kramer (1980) and Ryan, Mims and Koestner (1983). In these studies, positive-controlling feedback (e.g., "Well done, you did exactly what I told you and it worked!") – which supported competence but undermined autonomy needs – produced less adaptive outcomes than genuine praise or informational feedback, and could not be separated from a 'no feedback' condition. This playoff, cancelling out the effects of competence support, highlights a degree of interactivity between the basic needs and the ways in which the environment meets them. Henderlong and Lepper (2002; p.784) surmise: "Though it is often easy to make predictions about the effects of informational versus controlling statements relative to one another, it is typically much more difficult to make absolute predictions about whether the net effects are likely to be positive, negative, or neutral relative to a control condition". In many ways, these difficulties permeate research into SDT (see below), although more attention is invariably paid to positive findings where the tenets of SDT are more clearly supported – and this is arguably much easier to detect at the contextual level of analysis than the situational. Even at the contextual level, Allen and Howe (1998) assessed the relationship between perceived coaching behaviours and self-rated competence perceptions in female hockey players. In line with SDT, praise was positively associated with perceived competence, but in direct contradiction of SDT, encouragement and information following skill-errors were negatively associated with perceived competence. This appears to be a problematic finding, and Weiss and Amorose's attempt to account for it was rather speculative: "It is conceivable that the players in Allen and Howe's

study perceived an emphasis on performance oriented climates [which was not measured] and that coaches' encouragement plus instruction after errors was interpreted within that social context" (p.125 – parentheses added). The suggestion, derived from Wilko's (2004) unpublished study, is that a performance (competitive) motivational climate may lead an individual receiving instruction following an error to interpret this action as criticism, or highlighting the error in a public way – perhaps even acting as a punishment rather than a reinforcer – whereas in a perceived mastery context, instruction would be interpreted as helpful and positive, especially following an error. Viewed critically, these minor inconsistencies can be argued to reflect SDT's all-encompassing nature as a 'grand' theory, which at times becomes cumbersome to apply and interpret. This situation can occasionally cast the scientist as a puzzle solver (reconciling results with theories, as Weiss and Amorose attempted above) rather than as a theory-tester. As a rule-of-thumb, SDT seems to lose predictive accuracy (and conceptual clarity) at the situational level (e.g., instruction-controlling statements), where multiple behaviours and interactions can occur concurrently and have combinatorial effects (an observation echoed by Henderlong & Lepper, 2002; with specific regard to praise having mixed effects). At the more general contextual and global levels, where participants' general perceptions of an activity (or themselves) are measured, findings tend to be more readily reconciled with SDT.

2.4.2.1 - The global level-of-generality: The global level of generality in Vallerand's HMIEM has attracted remarkably little research interest. As Vallerand (2007; p.72) comments: "Very little research has focused on motivation and determinants and consequences at the global level... [and]... no research appears to have examined how global social factors may affect global motivation". One can speculate that this is for (at least) two main reasons. Firstly, research at the contextual level of generality tends to subsume variables that might otherwise be labelled as

global. Differentiating between these two levels can be difficult and, indeed, Vallerand's (2007) chapter appears to question the distinction in the subsection labelled "Two or three levels of generality?" (p.74). This difficulty may reflect both the genuine uncertainty in determining whether a variable is contextual or global, as well as reflecting the disproportionate prevalence of studies examining the contextual level of generality. Secondly, the global level of analysis tends to contain both (relatively omnipotent – hence 'global') intrapersonal variables and 'global' social variables. Whilst social global variables are difficult to define, and also suffer from the effects of the first point (above), intrapersonal global variables tend to have been studied in different domains of motivation research, which are often not immediately reconcilable with SDT. For example, whilst Need-for-Achievement (NAch) and Fear-of-Failure (FoF – Atkinson, 1957; 1964; McClelland, Atkinson, Clark, & Lowell, 1953) can be measured as global/personality variables, they are not easily converted into 'need for relatedness' or 'need for autonomy', and indeed these concepts are rarely measured directly (Guiffrida, Gouveia, Wall & Seward, 2008). Instead, the participant's perception that these needs have been met/undermined (i.e., need satisfaction) is more frequently measured, and then correlated with motivational outcomes (e.g., Deci, Ryan, Gagne *et al*., 2001; Kasser & Ryan; 1999; Reinboth & Duda, 2006; Reinboth, Duda & Ntoumanis, 2004), but this does neglect that different individuals may experience the needs for competence, relatedness and autonomy to different degrees, in terms of urgency/salience, and thus react differently to different social environments.

2.4.2.2 - The contextual level-of-generality: Vallerand's (2007) chapter identified several factors that he believed to occupy the contextual level: the coach (Pensgaard & Roberts, 2002; Mageau & Vallerand, 2003), perceived motivational climate (Ames, 1992; Duda & Hall, 2001), and sport/scholarship structures (Amorose & Horn, 2000; 2001). It is unclear why the coach is

classified as a contextual variable in this formulation, as the coach can presumably influence motivation situationally (with immediate behaviours and interactions), or globally (in the coach's role as relatively omnipresent social agent during all sporting involvements). Likewise, it is unclear why sport/scholarship structures might be classified as exclusively contextual influences, when these are unlikely to change year-on-year and so might be argued to constitute social-global influences. As outlined shortly, most measures of perceived motivational climate do use question stems appealing to a suitably generalised: "on this team..." which is arguably quite suitable for the contextual level of generality (e.g., PMCSQ-2 – Newton, Duda & Yin, 2000); so perhaps perceived motivational climate may well be classified as a social contextual variable.

At the contextual level, self-report measures of contextual IM have been positively associated with affective consequences such as increased satisfaction and enjoyment (Briére *et al.,* 1995; Pelletier *et al*., 1995) and reduced burnout (Cresswell & Eklund, 2005; Hodge, Lonsdale & Ng, 2008; Lemyre, Treasure & Roberts, 2006); cognitive consequences such as increased concentration (Briére *et al.,* 1995; Pelletier *et al*., 1995) and imagery style (Wilson, Rodgers, Hall & Gammage, 2003); and behavioural consequences such as self-reported intention to participate in sport (Chatziserantis *et al*., 2003; Sarrazin *et al*., 2002) as well as teacher-rated effort/engagement in PE (Weiss & Ferrer-Caja, 2000). It is not clear, on the basis of the existing research, which variables from the contextual level of generality could be argued to support the needs for competence, autonomy and relatedness, respectively – not least because the perceived degree to which these needs have been met tends to constitute a starting point for research – indeed perceived need satisfaction becomes a key variable in itself (as noted above), with the antecedents of need satisfaction receiving significantly less empirical attention.

One theoretical proposition that has been tentatively supported is the 'top-down' effect,

with features of the contextual level influencing situational indices. For example, Gagné *et al*. (2003) found that gymnasts who rated themselves as intrinsically motivated at the contextual level were generally more intrinsically motivated when sampled for situational motivation before training ($0.22 \leq r \leq 0.50$). It is worth noting that such a finding is quite unsurprising and arguably adds very little to our understanding of these motivational processes. Throughout the rest of the study, once participant attrition was accounted for, only one significant correlation was apparent between contextual and situational variables (parent autonomy support associated with situational identified regulation, but not the other forms). A study by Blanchard, Mask, Vallerand, Sablonière and Provencher (2007) also found weak but statistically significant correlations ($0.20 \leq r \leq 0.44$) between contextual motivation (for basketball) and situational motivation (following matches). Once again, however, whilst providing support for Vallerand's (1997) HMIEM, very little is unveiled about what specific variables and perceptions led to contextual IM/IM, or what specific situational factors moderate/mediate the impact of these contextual factors on situational motivation. Recent studies at the contextual level have, however, suggested that the degree to which the basic needs for competence, autonomy and relatedness (measured as contextual variables) are met mediates the relationship between antecedent variables, such as perceived coach autonomy support (a contextual measure), and outcome variables such as motivational orientation (Amorose & Anderson-Butcher, 2007) or subjective well-being/vitality (Adie, Duda & Ntoumanis, 2008 – also measured as generalised/contextual constructs). As above, such findings provide support for theory, SDT in this case, but they give very little detail about what leads athletes to feel that coaches support/prevent autonomy, competence or relatedness and so whilst theoretically relevant, these studies do not provide the sort of specificity needed to train future coaches or parents, nor do they offer anything more than a cursory overview of a rich,

fluid and deeply complex system of motivational processes.

2.4.2.3 - The situational level-of-generality: Like the global level, the situational level has received little relatively empirical attention, particularly in sport. Vallerand's (2007) review simply highlights four concepts which he proposes can be considered situational: rewards and awards, competition, feedback (positive/negative) and choice. Research on rewards contributed in no small part to the conception of SDT, or at least CET. As such, Deci, Koestner and Ryan (1999, 2001) were able to conduct meta-analytic reviews revealing that any rewards which are contingent upon participation, effort or achievement undermine IM, but unexpected and non-contingent rewards appeared to have no effect. Initial research into competition suggested it was detrimental to IM (Deci, Betley, Kahle, Abrams & Porac, 1981), but it subsequently became clear that those who won, or felt they performed well in competitions had significantly higher IM than losers and participants who felt they performed poorly (Vallerand, Gauvin & Halliwell, 1986; Weinberg & Ragan, 1979). In addition, the findings of Tauer and Harackiewicz (2004) suggested that competing as part of a team was relatively beneficial to IM. Positive feedback generally increases IM, whereas negative feedback is generally detrimental to IM (Vallerand & Reid, 1988). However, interactions with other variables (e.g., controlling praise – as mentioned earlier – Deci *et al*., 1981), led Henderlong and Lepper (2002) to conclude that praise could be beneficial, detrimental or inconsequential for IM *depending on other factors*. Choice is generally beneficial to IM (Dwyer, 1995; Goudas, Biddle, Fox & Underwood, 1995) but only on the condition that it is perceived to be a genuine choice, and not a forced choice (Patall, Cooper & Robinson, 2008; Reeve, Nix & Hamm, 2003). A genuine choice leaves all options open, for example "what would you like to do today?" whereas a forced choice usually only offers 2-3 options, some/none of which may be desirable to the participant; e.g., "would you like to listen to

classical or country music this afternoon?"

Overall, despite Vallerand's (2007) careful analysis, it remains extremely difficult to differentiate between situational, contextual and global level variables – and indeed many research studies do not specify which level their measures relate to. It might be helpful to differentiate between intrapersonal and social-environmental varieties of each, as well as seeking additional clarity about how each level interacts. For example, how many times must a specific behaviour be observed at the situational level before it influences (or even becomes) a contextual variable? If a coach is always smiling, tolerant of skill failures and welcoming, at what point does this become represented as a contextual variable (e.g., positive coach affective style)? Thus, whilst the situational level arguably contributes the building blocks of the contextual level and occurrences at the situational level appear most likely to predict immediate motivated behaviours, at this time very little is known about the specific influences at each level, and how they interact in order to produce perceptions and/or influence IM/EM. This project specifically aims to address this problem by identifying socio-environmental influences from all three levels.

2.4.2.4 - Supporting basic psychological needs: Reeve (2009) arranged his discussion of SDT not around levels of generality (which, as demonstrated above, can be a little cumbersome) but instead around the ways in which each psychological need can be supported or undermined. Care is required in interpreting this summary for the following reasons: 1) the review is a little (necessarily) abstract in places; 2) the review overlooks the potential interactivity between antecedents in determining outcomes, and 3) it does not differentiate between behaviours occurring at the global, contextual or situational levels of generality.

Table 2.4.3: A summary of ways in which basic psychological needs have been shown to be supported in studies. Adapted from Reeve (2009; p.145-164)

Basic psychological need	General antecedent	Specific variations	Studies supporting link
Autonomy	Offering choices	'Forced' versus 'genuine'	Patall et al. (2008); Reeve et al. (2003); Williams (1998); Zuckerman, Porac, Lathin, Smith & Deci (1978). Flowerday & Schraw (2003); Flowerday, Schraw & Stevens (2004); Moller, Deci & Ryan (2006)
Autonomy	Autonomy supportive style Versus Controlling style	Nurtures recipient's inner motivational resources - rather than seeking compliance	Deci, Schwartz et al. (1981); Flink et al. (1990); Reeve et al. (1999).
		Informational language – as opposed to controlling language	Assor, Roth & Deci (2004); Ryan (1982); Soenens, Vansteenkiste, Duriez, Luyten & Goossens (2005)
		Providing explanations and rationales – rather than relying on unquestioning compliance	Deci, Eghrari, Patrick, & Leone (1994); Koestner, Ryan, Bernieri & Holt (1984); Newby (1991); Reeve, Jang, Hadre & Omura (2002); Sansone,Weir, Harpster & Morgan (1992); Sansone, Wiebe, & Morgan (1999).
		Acknowledge/accept negative affect associated with task– as opposed to ignoring or punishing it	Not evidenced but suggested by: Deci, Speigel, Ryan, Koestner & Kauffman (1982) Reeve et al. (1999) Reeve & Jang (2006)
Competence	Optimal challenge	Level of task must be '**optimal**' as opposed to too difficult or too easy	Csikszentmihalyi, Rathunde & Whalen (1993) Csikszentmihalyi & Csikszentmihalyi (1988) Keller & Bless (2008)
Competence	Feedback	**Positive feedback** supports competence but negative feedback undermines it	Anderson et al (1976) Blank et al (1984) Deci (1971) Dollenger & Thelen (1978) Vallerand & Reid (1984)
Competence	Task structure	**Clear goals and structure** – and support in progressing	Hokoda & Fincham (1996) Hollembeak & Amorose (2005) Ntoumanis (2005) Taylor & Ntoumanis (2007)
Competence	Tolerance of failures	Social environment is **permissive of failures** and does not punish them	Clifford (1988, 1990)
Relatedness	Perceptions of a social bond	Beyond mere involvement Must know and accept "the real me" Knowledge of specifics appears to be lacking	Deci & Ryan (1995) Wheeler, Reis & Nezlek (1983) Carstensen (1993)

However, Reeve's (2009) review offers an initial insight into the ways that social agents (and environments) can support, or undermine, psychological needs. The considerations identified in Table 2.4.3 could be enacted by coaches, parents, teachers, peers or, indeed, experimenters. This review is informative, but it also highlights the relative paucity of knowledge built up in this area. Whilst numerous studies are conducted under the auspices of

SDT, a fuller awareness of issues regarding level-of-generality, the interaction between variables (from different levels) and the mechanisms by which need satisfaction mediates motivational outcomes are all undermined by the predominance of questionnaire methodologies, correlating quite general perceptions and leading to, at best, rules of thumb. A preference can be identified in the extant literature for measuring the degree to which participants perceive that their psychological needs are met, and then progress to motivational consequences. This bypasses the identification of social and environmental features that may lead to these needs being met – but it does support the idea that when psychological needs are (perceived to be) met, the consequences are generally positive in terms of adaptive behaviours, cognitions and positive affect (Adie, Duda & Ntoumanis, 2008; Coatsworth & Conroy, 2009; Gillet, Berjot & Gobance, 2009; Reinboth & Duda, 2006; Reinboth, Duda & Ntoumanis, 2004). Supporting this link at the contextual level of generality is useful, and supports Vallerand's (1997) HMIEM as well as supporting a key tenet of SDT, but it does leave a lot to be discovered – not least because it would still be rather difficult to convey to coaches, parents and peers exactly how they should support these needs such that their specific athletes perceive their needs to be met, and experience positive motivational outcomes as a result. The current research aims to bridge this gap between theoretical ideas and detailed behavioural recommendations by identifying the specific motivationally relevant behaviours of coaches, parents and peers across the athletic career-span.

2.5 - Achievement Goal Theory

2.5.1 – Overview of Achievement Goal Theory

Achievement goal theory (AGT - Nicholls, 1989) evolved alongside SDT, but in the sport and educational domains AGT has arguably become the dominant theory in explicitly examining this idea of how success/failure in achievement contexts is defined. Achievement contexts are

defined by the presence of some evaluative elements and so can include school, sports, and sometimes exercise/health (Roberts, 2001). The debate is ongoing as to whether the subjective definition of success/failure used in AGT should extend to any aspects of the achievement context, or should focus exclusively on competence, and much of the existing research also considers other non-competence concerns, such as self presentation or social status (Elliot & Dweck, 2005). Maehr and Nicholls (1980; p.262) proposed that: "Achievement motivation should be defined in terms of its purpose or meaning for people rather than in terms of overt behaviours or the characteristics of situations in which the behaviour occurs". This focus on subjective meaning became the lynchpin of achievement goal theory. Nicholls (1984, 1989) asserted that an individual's internal sense of competence was pivotal in achievement contexts and that importantly, the meaning of competence could be defined in at least two different ways:

> Achievement behaviour is defined as behaviour directed at developing or demonstrating high rather than low competence. It is shown that competence can be conceived in two ways. First, ability can be judged high or low with reference to the individual's *own past performance or knowledge*. In this context, gains in mastery indicate competence. Second, ability can be judged as capacity *relative to that of others*. In this context, a gain in mastery alone does not indicate high competence. To demonstrate high capacity, one must achieve more with equal effort or use less effort than do others for an equal performance. (Nicholls, 1984; p. 328 – italics added)

Hence, individuals are *task involved* when *improvements* in, or the mastering of, a skill or task provide them with a sense of competence (and subsequent satisfaction). Alternatively, an individual is *ego involved* when their sense of competence depends upon demonstrating superior performance to others (e.g., genuinely superior or an equal performance to their competitor with

less effort exhibited). These two definitions of competence can be applied at the involvement level-of-analysis, the situational/contextual level (climate), and the pre-dispositional level (orientation), as well as being two separate definitions in their own right.

Due to conceptual overlaps and linguistic inconsistencies in different authors' approaches to AGT, which are both frequently debated and often the source of some confusion, it is necessary to differentiate between conceptually similar terms. C*ompetence* will hereafter be used to describe the level or quality of effectiveness, sufficiency or success (Oxford English Dictionary, 1997) and the term *ability* will be used when referring to a relatively fixed construct, synonymous with talent or capacity. Task and ego will be used to refer to AGT at the orientation and involvement levels, whilst mastery and performance will be used to refer to AGT research on motivational climate (cf. Ames & Archer, 1988).

2.5.2 - Developmental processes

Nicholls' contribution to achievement goal theory emerged from developmental ideas surrounding how young children develop through process whereby the concept of ability is gradually differentiated from effort, task difficulty and luck (Nicholls & Miller, 1984). Initially, between 5 and 7 years of age, Nicholls believed children did not differentiate between the concepts of ability/capacity and effort. Tasks which children are uncertain of completing were viewed as difficult, requiring more effort and completion provides children with a sense of achievement and competence. In effect, the limitation of ability in restricting what effort could produce is not realised and so, in the mind of a 5-year old, the two were one-and-the same; achieving-by-trying would be the same as achieving-through-ability. This undifferentiated definition of competence was arguably the earliest (or even the purest) form of task involvement. Ironically it represents a mindset that Nicholls and all achievement goal theorists seek to re-

introduce and reinforce in older, cognitively more sophisticated, athletes.

Table 2.5.2: Gradual differentiation of ability, luck and skill as reported by Nicholls & Miller (1984) adopted from Nicholls (1989; p.21)

Age	Difficulty and ability	Luck and Skill	Effort and ability
Up to ≈ 7 years	Children's own expectations of success are the basis for judging task difficulty and subsequent ability	Tasks are not distinguished in terms of the influences of luck and skill on task-outcomes. Children focus on the apparent difficulty of the task.	Ability and effort are not distinguished so accomplishing a difficult task is rewarding. Cause-and-effect link between effort and outcome is overly simple.
7 to ≈ 11 years	Concrete, observable properties of tasks (e.g. complexity) are the basis for judging difficulty and subsequent ability	Effort is expended to achieve at both 'luck and 'skill' tasks but seen as more influential in 'skill' tasks. *or* limited recognition that luck element undermines effort.	Effort is the still soul determinant of outcome. Equal effort from different students should produce same results. *or* Limited recognition that ability can play a role in task outcomes
Older than 11	Task difficulty and own ability are judged in relation to others. Tasks are seen as harder when few people can perform/complete them, with associated influences on judgement of ability	Luck and skill clearly differentiated with effort expected to have no influence on 'luck' tasks.	Ability is conceived as separate from and unaffected by effort. Task outcome is a product of ability and effort and more emphasis is often placed on ability.

In Nicholls' conception, as children mature they move through a series of cognitive-developmental stages (described in Table 2.5.2) whereby at 11 or 12 years, children are able to conceptualise ability separately as a relatively stable capacity (Fry, 2001). Children with a differentiated understanding of competence understand that difficult tasks are often those that only few can complete, and that this is a relatively good heuristic/rule-of-thumb for appraising task difficulty and one's own level of achievement. As such, children begin to understand that ability (on the specific task), perhaps more than effort, determines whether achievement tasks are successfully completed. Fundamentally, during this phase-of-development children realise that the outcome of a task is a *product* of ability/capacity and effort (and sometimes luck). Low ability/capacity can undermine compelling effort, and likewise lack-of-effort can produce underperformance in the more able athletes. Hence, the role of effort can become a double-

edged-sword (Covington & Omelich, 1979), with some tasks demanding effort in order to maximise capacity/ability and increase the likelihood of success, some tasks where low effort expenditure and success-through-ability can combine to 'look good', and others where the likelihood of success is minimal, regardless of effort, so effort is best not expended. Nicholls proposed that when children achieve this sophisticated definition of competence they are capable of being ego-involved, by focusing on interpersonal comparisons of ability, and perhaps even overemphasising ability's role in task outcomes. It should be noted, however, that these findings were originally achieved in an academic setting, and it should not necessarily be assumed that the same results would be found in sport (Fry & Duda, 1997; Smith, Smoll & Cummings, 2009). The complexity of the task and instructions has been cited as reasons why younger children may have failed to 'differentiate' (Heyman *et al.,* 2003) as some of the studies involved rather complex experimental procedures (e.g., Nicholls, 1978; Nicholls & Miller, 1983). Additionally, the salience of concepts such as ability and effort are proposed to be much more salient in sport than academic settings (Smith *et al.,* 2009). Score keeping, performance statistics, league standings and the awarding of trophies all amplify the salience of ability, whilst grimacing, exclamations, sweating/breathing and fatigue are all highly salient signs of effort exertion in sport, which are not as salient in academic settings. In addition, Smith *et al*.'s (2009) re-analysis of Fry and Duda's (1997) findings suggested that 9 and 11 year-old children did not differ significantly in their ability to differentiate effort from ability in sport, and that the majority of children at both ages were able to differentiate. Finally, studies such as Cumming, Smith, Smoll, Standage & Grossbard (2008) and Smoll, Smith and Cumming (2007) have validated perceived motivational climate questionnaires with younger athletes. And this could also be taken as support for the notion that children below 12 can differentiate between effort and ability. Hence,

the decision to exclude athletes under the age of 12 from studies (e.g., Vazou *et al.,* 2005) may not be as well substantiated as previously argued.

Overall, Nicholls' body of work is persuasive in establishing how maintaining optimal motivation in sport revolves around producing task-involvement (particularly once children have become capable of ego involvement) by encouraging a focus on effort, improvement and intrapersonal comparisons. On occasion, task involvement is referred to as 'less/un-differentiated', and ego involvement as more differentiated; this nomenclature could easily be interpreted as meaning task involvement is less sophisticated. However, in adults this may be a misnomer, as the strong salience of an ego/performance definition may imply that there is more cognitive effort and sophistication required in separating out results from ability, and realising the role of effort in both immediate performance and subsequently improved performances. This differentiation process is completed around the time that athletes transition to secondary school, which coincides with the time many athletes transition from sampling sports to specialising into a single sport. As such, this process may become relevant in the current research project, which examines the social determinants of motivation in children as young as seven.

2.5.3 - A related (but separate) theory: Dweck's implicit theories:

During the development of AGT (through a series of seminars in the 1970's at the University of Illinois), whilst Nicholls was studying developmental processes surrounding ability/competence, Carol Dweck's work focused on why children of equal ability reacted differently to success and failure on tasks (in terms of withdrawal versus increasing effort). Based on their research, Dweck and her colleagues (Diener & Dweck, 1978; 1980; Dweck, 1975) proposed specific individual differences that lead to the pursuit of different goals. These individual differences in belief or 'implicit theories-of-ability' (ITA) have become known as

implicit theories. According to Dweck (1999), attributes of the self, other people, places, and the world-in-general can be conceived a) as fixed, uncontrollable factors or, alternatively, or b) as malleable and controllable factors that are open to development. The first approach has been termed an 'entity theory', the second an 'incremental theory', and individuals can be described as entity or incremental theorists depending on their views of attributes within a given achievement domain (sport, school, work), or even activities within that domain. Dweck proposed that entity theorists are more likely to endorse performance/ego goals, whereas incremental theorists are more likely to pursue task/mastery goals. This is because performance goals serve to demonstrate or prove one's stable ability (or avoid displaying the inadequacy of one's fixed and unchangeable ability), whereas one form of the task goal is to develop/improve one's malleable ability. Hence, individuals can interpret achievement settings differently depending on their underlying implicit theories. It is also likely that, by reinforcing or challenging such beliefs, coaches, parents and peers will influence a player's conception of ability (improvable versus fixed) within a certain achievement domain and therefore influence their interpretations of what constitutes competence within that situation (Gottfried, Fleming & Gottfried, 1994; Kamins & Dweck, 1999; Muller & Dweck, 1999). This is a potentially important (and relatively under-represented) aspect of the socially determined motivational climate.

There is an issue of measurement with regard to the study of ITAs, identified by Weiner (1995). Dweck, Chiu & Hong (1995) used three Likert-scaled items to measure implicit beliefs, but Weiner observes that "the wording of the items overlaps significantly" (p.319) in order to ensure strong reliability, but that this seriously compromises the validity and utility of the measure. Another approach is to use forced-choice indicators, along the lines of: "Do you believe that practice on this task will improve your level of performance?" Yes/No. The problem with

this is that, when given more choices (e.g., Dweck et al., 1995), participants often endorsed both conceptions of ability. Hence, measuring ITAs seems to be rather difficult, so instead researchers have tended to try and manipulate these beliefs regarding a specific task by changing the instructions given to participants (e.g., Jourden, Bandura & Banfield, 1991; Niiya, Crocker & Bartmess, 2004). One difficulty with this is that the only available option for observing whether such a manipulation 'works' is to look at the experimental results (usually free-time task choice, effort, or persistence) – as the above measures of ITA seem to be compromised from the outset.

2.5.4 - Levels of application

According to AGT (Nicholls, 1984; 1989) the states of task and ego involvement are induced by a combination of relatively stable intrapersonal traits ("orientation") with the specific pragmatic and social situations in which the achievement task is defined ("climate"). Duda (1993) suggests that this orientation – proneness to one-or-the-other goal involvement – is a product of socialisation experiences within achievement domains. Hence, it is possible to argue that the "climates" experienced by the developing sports participant influence that participant's subsequent "orientation" – although the interplay between these constructs is still relatively unknown except to say that they correlate strongly, and frequently (see 2.6.4). The central point, however, is that achievement goal theory conceptualises two contrasting definitions of competence (task versus ego) at three different levels of analysis: i) involvement – the immediate here and now, ii) orientation – intrapersonal predispositions to either/both kinds of goal involvement and iii) climate – the situational factors that interact with orientation in determining immediate goal involvement (Nicholls, 1989). Numerous psychometric instruments exist in order to measure the endorsement of each definition of competence at all three levels, in different domains (sport, PE, exercise - Duda & Whitehead, 1998). It is important to note, however, that

the researchers responsible for the emergence of approach-avoidance goals (discussed shortly) do not conceptualise these three levels of analysis but rather a vast set of interacting intrapersonal antecedents and situational antecedents that combine to produce a goal-involvement state. Hence, goals are not analogised between levels but restricted to the level of involvement (although this 'involvement' can last weeks and months as opposed to moments, as Nicholls' definition would denote – i.e., Elliot's (1999) 'involvement' (termed *goal adoption*) can exist at both the situational and contextual levels), meaning that intrapersonal and environmental/social 'goals' are instead conceptualised as antecedent variables.

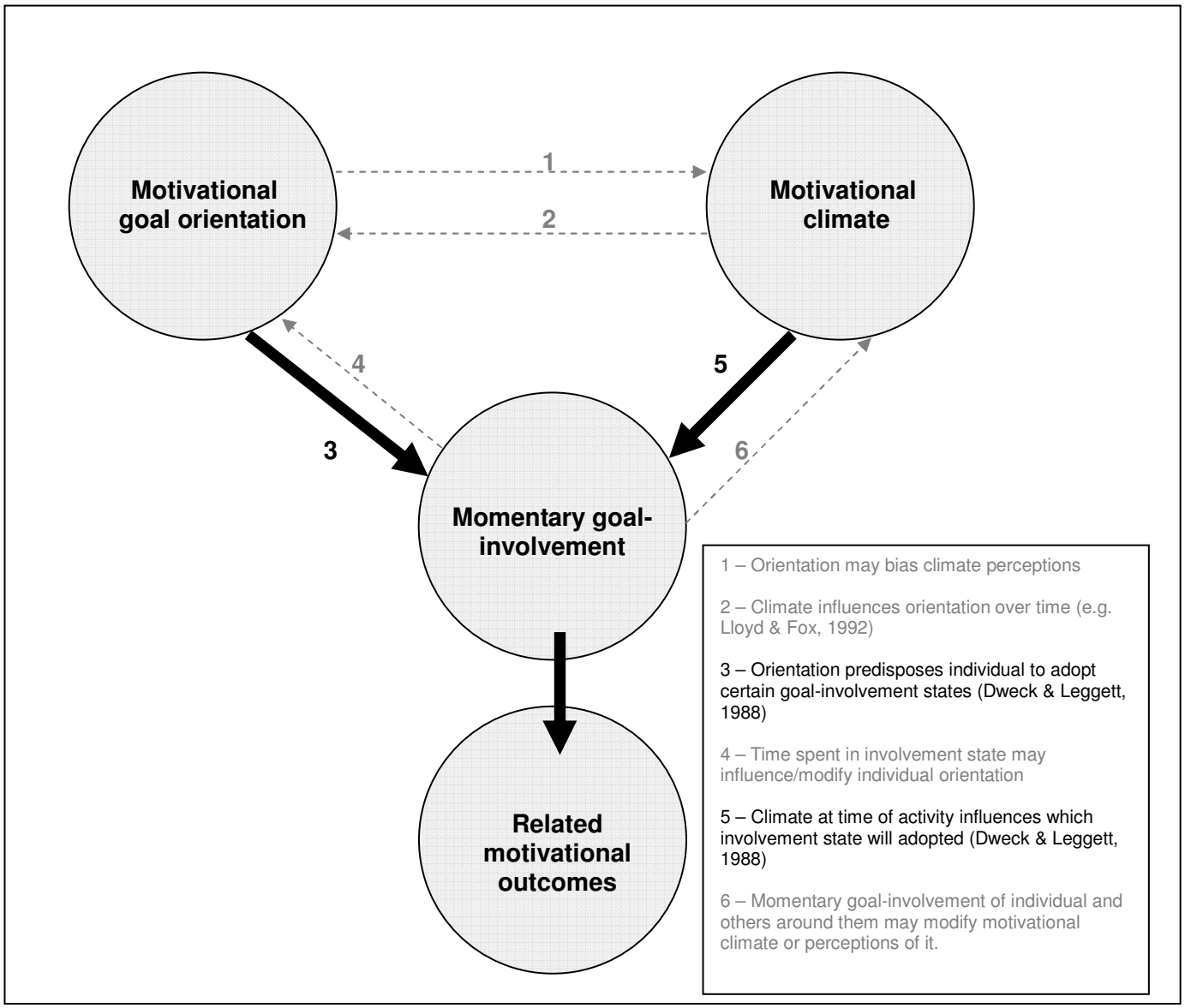


Figure 2.5.4.1: A representation of Nicholls' (1984; 1989) traditional AGT framework. Theoretical links between goal orientations (e.g., personality / trait), motivational climates (contextual + situational determinants) and momentary goal involvement, leading to potential influences on motivational outcomes. Thick arrows indicate relationships indicated by Nicholls. Dashed arrows indicate other potential relationships.

This difference between Nicholls' and Elliot's formulations raises the question of whether it is acceptable to apply achievement goal constructs to each level. For example, in Elliot's (1999; 2005) hierarchical model of approach and avoidance motivation (detailed shortly) intrapersonal traits and preferences are likely to be relatively stable and may readily be modelled

as a "goal orientation". Indeed, Elliot and Thrash (2002) would appear to have adopted this approach in modelling neuro-anatomical variations and personality variables as approach and avoidance 'temperaments' that influence the adoption of mastery, performance-approach and performance-avoidance goals (although their 2001 paper argues against this approach in relation to modelling performance and mastery orientations). Likewise, the current research sets out to explore whether the numerous factors that constitute a climate can be considered in terms of a "goal climate". In both cases, a number of antecedent variables are collapsed to form a summary construct. However, there is some intuitive sense in having consistency of concepts between levels, particularly for coaches and practitioners attempting to convey or apply these influential psychological principles. Whether this is a satisfactory argument for maintaining this representational framework is yet to be determined.

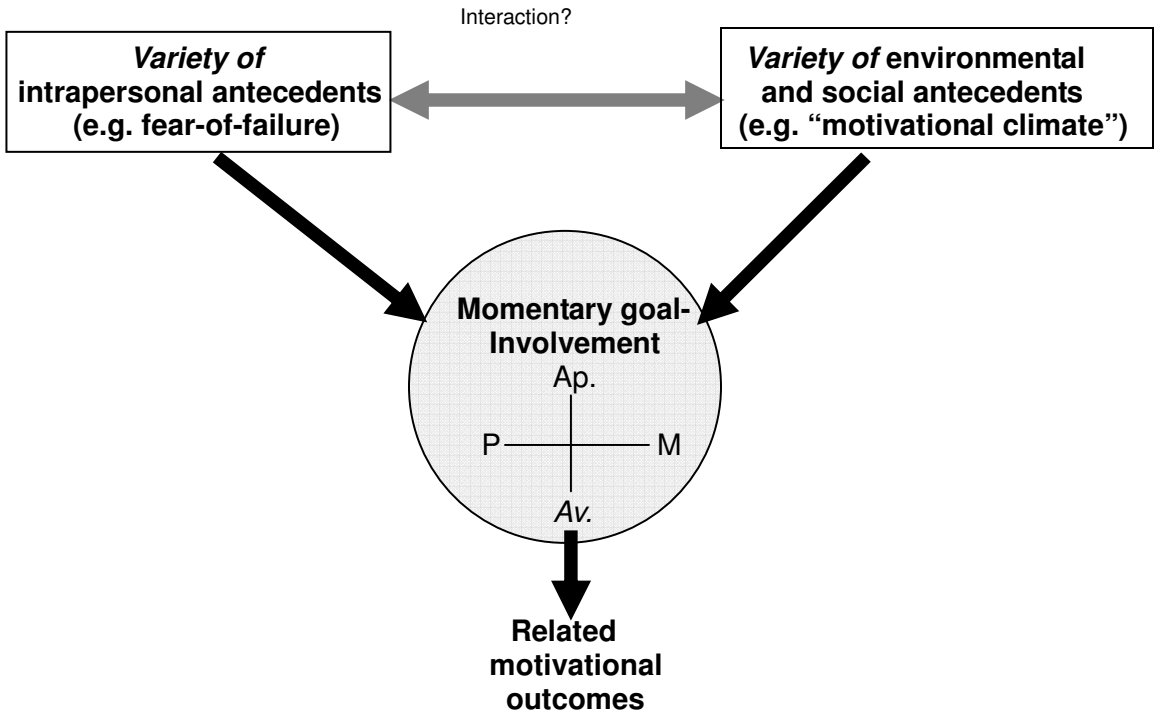


Figure 2.5.4.2: Elliot's alternative conceptualisation of achievement goal structures; the hierarchical model. Notably there is no 'goal orientation' concept, only antecedents. The question needs to be asked in this research whether climate should be treated as a group of antecedent variables or the more traditional 'goal climate'.

2.5.5 - Theoretical predictions and findings

Achievement goal theory dictates that individuals in a state of mastery involvement will display a positive and adaptive pattern of motivational responses; cognitive, affective and behavioural. These participants are predicted to positively engage in the achievement situation, demonstrating effort, persistence and choosing challenging tasks (Nicholls, 1984). Further, individuals with a high mastery orientation/disposition would also have positive beliefs about sport, for example, viewing effort and hard work are the main causes of success in sport (Duda & Nicholls, 1992; Duda & White, 1992; Roberts & Ommundsen, 1996). These individuals would also believe that the purpose of sport is to foster mastery, co-operation and social responsibility, which reduces the implications of failure to the self and therefore should facilitate increased enjoyment and satisfaction (Duda, Chi, Newton, Walling & Catley, 1995; Ntoumanis & Biddle, 1999). Further, individuals who are more predisposed towards mastery involvement view the opposition as co-operative in creating the chance for personal development and challenge, so will endorse relatively high moral values and frown upon cheating (Duda, 1992; 2001; Roberts, 2001; Roberts, Treasure & Kavussanu, 1996). Correlational links between task/mastery versus ego/performance definitions of competence at the climate level and important associated variables are discussed shortly (2.6.4). Research examining achievement goal orientations and goal involvement states demonstrates almost exactly the same pattern as climates, but given that it does not form part of this research project (which focuses on environmental and social influences), it is kept separate from the current analysis. The interested reader is referred to reviews by Duda and Whitehead (1998) and Harwood, Spray and Keegan (2008).

2.5.6 - Approach-avoidance achievement goals

The distinction between approaching the desirable and avoiding the aversive has been a part of theorising in motivation since the inception of psychology as a scientific discipline (Elliot, 1999). Indeed, Nicholls' (1984) original writing also examined the notion that individuals in achievement settings can be concerned with avoiding the demonstration of incompetence. Traditionally achievement goal theory has placed the concept of perceived competence as vitally important, as described earlier, and Nicholls (1984) suggested that individuals with *low perceived competence* can belong to one of three different categories when placed in achievement situations: a) individuals committed to demonstrating competence *despite* perceptions of inadequacy [approach], b) individuals committed to *avoiding demonstrating incompetence* [avoidance], and c) individuals who are *not committed* to avoiding demonstrating low ability [amotivation?]. Note that in these definitions 'demonstrating' competence may mean either normatively *or* in a self-referenced manner. It is only recently, however, that this assertion by Nicholls has been revisited. The goal of avoiding demonstrating incompetence is proposed to be adopted when the likelihood of demonstrating competence is undermined (Nicholls, 1984; p.332). However, it is possible that participants may begin a task with this goal in mind, without having to 'lose' the prospect of demonstrating competence first. It is also notable that the constructs of perceived high-or-low ability were considered as functionally isomorphic with approach-versus-avoidance motivational tendencies by some theorists (Kukla, 1972; Meyer, 1987). Thus the moderating influence of perceived competence in Nicholls' (1989) achievement goal theory may have already been incorporating aspects of approach and avoidance tendencies in a convoluted manner, and Elliot (1994, 1997) asserted that this may have delayed progress in achievement goal theory by providing 'false positive' results regarding perceived competence –

which has often been proposed as a mediator between goals and outcomes, rather than as a goal itself, in the form of the approach-avoidance distinction.

Whilst Nicholls (1984) had alluded to the avoidance of demonstrating incompetence, Dweck's (1986) conceptualisation (described earlier) also proposed that individuals possessing low perceived ability, *and* who view human attributes/skills as a fixed entities, are more likely to want to avoid negative judgments of competence and seek to gain positive judgments of their fixed and unchangeable ability. Dweck & Leggett (1988) described how children with 'entity' theories (in the domain of intelligence) were most likely to exhibit challenge-avoidant goals - seeking to do well on easy tasks and thus avoid the inevitable mistakes on a more difficult tasks. However, the concept of seeking to avoid demonstrating incompetence was largely ignored in the research that followed, which focused overwhelmingly on approach motivation (often termed 'achievement motivation'), examining the implications of seeking to *demonstrate competence* in task/mastery versus ego/performance terms (Duda, 2001; Duda & Hall, 2001). More recently, Elliot and colleagues (Elliot, 1997, 1999; Elliot & Church, 1997) have (re)introduced the concept of avoidance goals i.e., striving to avoid displaying inadequacy in the *educational* achievement domain.

Elliot (1997, 1999) argues that inconsistent findings in the achievement goal literature concerning the motivational implications of ego/performance goals are, *in part,* a result of the failure to distinguish 'approach' and 'avoidance' forms of this goal definition (in part because he also cites the failure of AGT to focus more exclusively on competence, thus allowing social and self-presentational concerns to confound understanding, as well as a failure to distinguish between goals – in the form of involvement/adoption - and their numerous antecedents – as opposed to dichotomous orientations). Moreover, Elliot argues the relevance of a mastery-

avoidance goal in which the individual is concerned with, *and strives to avoid*, demonstrating incompetence in a self-referenced (e.g., deterioration relative to previous scores) or technical (poor technique) perspective (see Elliot 1999). Elliot & Covington (2001) and Elliot and Thrash (2002) also illustrate the fundamental importance of the approach-avoidance distinction in the history of psychological study, and more specifically in the study of motivation and motivated behaviour. There is a compelling case that approach-based or 'hedonic' systems and avoidance-based or 'survival' systems operate simultaneously on numerous intrapersonal levels ranging from neurophysiological (Gray, 1990), emotional predisposition (Tellegen, 1985; Watson & Clark, 1993; Clark & Watson, 1999), general personality (e.g. neuroticism versus extroversion, McCrae & Costa, 1987; Costa & McCrae, 1992) and cognitive predispositions (Cacioppo *et al.,* 1997). Further, these bivariate systems at different cognitive and affective levels can be modelled together into a consistent two-factor model that predicts related motivational and affective outcomes across *different domains* (Elliot & Thrash, 2002; Gable, Reis & Elliot, 2003). Additionally this evaluative process appears to be supported by neurological structures in the brain, independent from those that support perception and higher cognition (see Cacioppo *et al.,* 1996; Elliot & Covington, 2001). The evaluative processing that leads to approach or avoidance predispositions is purported to take place "in a matter of milliseconds" (Bargh & Chartrand, 1999, p.475). Consequently, the consideration of approach-avoidance motivation may well be important for the development of achievement goal theory, but it is certainly important in any study of human motivation and motivated behaviour. Thus, not only does the current study need to consider which social and environmental influences may support or undermine basic psychological needs, as well as invoking task-versus-ego definitions of competence, but where possible the current project needs to establish which behaviours and interactions with key social

agents can invoke approach and/or avoidance valenced forms of motivation.

2.5.7 - Elliot's concurrent contribution – the focus on competence

Elliot and colleagues also argue that the achievement goal construct should focus solely on *competence*, the demonstration of it and the avoidance of demonstrating a lack of it (Elliot & Thrash, 2001). As such, valence and definition are the sole components of an (momentary/involvement type) achievement goal, whereas measures of goals that utilise Nicholls' and Dweck's conceptualisations go beyond the definition and valence of competence and extend to tap indices of self-evaluation and social status. For example, in measures such as the Task-Ego Orientations in Sport Questionnaire (TEOSQ – Duda & Nicholls, 1992) and Perceptions of Success Questionnaire (POSQ – Roberts & Balague, 1989; 1991; Treasure & Roberts, 1994), individuals are asked to indicate what makes them feel successful, or they are predisposed to a focus on how others judge their competence. This is also exemplified in the POSQ, which asks "when playing sport, I feel successful when [I show other people I am the best / I am clearly superior]", whilst the TEOSQ asks "I feel most successful in sport when [I can do better than my friends / I'm the best]". Such wordings do not necessarily relate *exclusively* to competence as opposed to social concerns, as the two can be significantly inter-related (Skinner & Piek, 2001), i.e., demonstrating physical competence can be associated with increased popularity and status, and vice versa – and these item wordings do not discriminate between these issues. Yet, according to Elliot such self-worth and self-presentational concerns should not be included in the conceptualisation and measurement of a goal, because it becomes unclear whether these concerns impact upon motivational processes and outcomes and how they may combine with a (competence based) achievement goal. Such a refinement arguably makes it easier to reconcile AGT with SDT, as it would focus AGT into the consideration of competence

needs, rather than awkwardly relating to all three psychological needs.

2.5.7.1 - Core theoretical predictions

Approach-avoidance goals were initially incorporated into a hierarchical model of achievement goals in which multiple antecedents of goal striving and goal adoption (the lower tier of the hierarchy) combined to produce *three* types of momentary goal/involvement-state: *mastery* (approach) in which the concern is to demonstrate self-referenced competence, *performance-approach* in which the concern is to demonstrate competence relative to others, and *performance-avoidance* in which the concern is to avoid demonstrating incompetence relative to others - these formed the higher tier of the hierarchical model (Elliot, 1997; Elliot & Church, 1997). Subsequently, the mastery goal was also split into approach and avoidance forms, providing a full 2x2 crossing of approach and avoidance forms over performance and mastery goals (see Elliot, 1999; Elliot & McGregor, 2001). This created four possible achievement goals (performance-approach, performance-avoidance, mastery-approach and mastery-avoidance) that are construed as "concrete cognitive representations that serve a directional function in motivation by guiding the individual toward or away from specific possible outcomes" (Elliot & Thrash, 2001, p.143). For example, a sport participant may be concerned that they will do poorly in relation to the other participants (performance-avoidance goal), or poorly in relation to a previous performance, or perhaps fail to achieve a desirable technique or skill (mastery-avoidance goal). The participant may well be concerned with wanting to win an event or race (performance-approach goal) or simply to 'play well' from a technical perspective and improve on his or her own previous performances (mastery-approach goal).

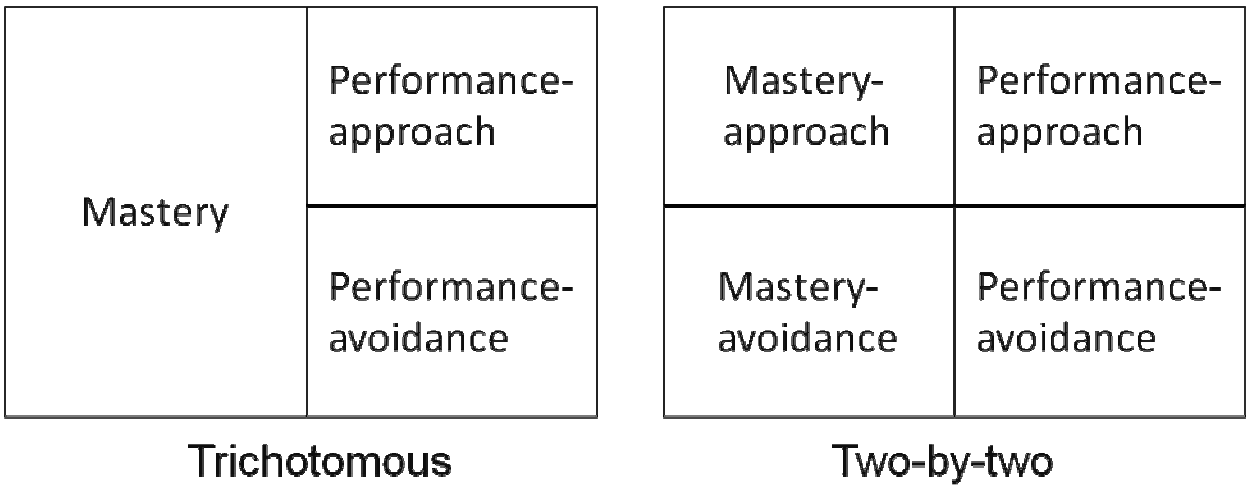


Figure 2.5.7: A representation of the trichotomous and 2x2 goal frameworks.

In Elliot and McGregor's (2001) 2x2 framework, a goal is neither an intrapersonal predisposition to adopt goals nor a socially emphasised desirable outcome, but instead a cognitive representation that serves to direct behaviour. Each of the four goals can be pursued for a host of different *reasons* (antecedents). These reasons provide the *energising force* for behaviour, whereas the goals themselves *channel* this energy toward or away from specific desirable and aversive possibilities respectively. Theoretically, the reasons for pursuing a goal and the goal itself interact, forming 'goal complexes' that determine motivational outcomes and processes (although the number of potential goal complex combinations is immense). Key antecedents/'reasons', can be intrapersonal, such as implicit theories of ability (cf. Dweck & Leggett, 1988), competence expectancies (Nicholls, 1989), , need for achievement (Atkinson, 1957; McClelland, Atkinson, Clarke & Lowell, 1953), need for approval (Rogers, 1961; Hall & Lindzey, 1985), fear of failure (Atkinson, 1957), and perceived competence (i.e., *not* a moderator – Elliot & Church, 1997; Lopez, 1999) as well as situational factors such as perceived motivational climate (cf. Ames, 1984b). Therefore, individuals may experience sport settings

very differently depending on the goal(s) adopted and the intrapersonal and situational *reasons* for goal adoption (see Elliot, 1999).

An additional consideration is that, in Elliot's conceptualisation, it is possible for each of the four types of concern (i.e., goals) to be *simultaneously* salient to differing degrees. In this construction of the theory, achievement goals are considered neither orthogonal (i.e., Nicholls' goal orientations) nor bipolar (i.e., Dweck's state goals). Individuals can pursue different goals at the same time. In support of this, positive associations may be found empirically among all four goal involvement states (see Conroy, Elliot & Hofer, 2003).

Both the trichotomous and 2x2 frameworks facilitate the testing of predictions in terms of both antecedents of the four goals and their achievement-related consequences despite the fact that the numerous individual and environmental factors potentially underpinning achievement goal pursuit will impact on processes and outcomes in diverse ways. This is one of the benefits of moving from cognitive theories to social cognitive theories as described earlier. Mastery-approach goals are underpinned by success-oriented factors such as need for achievement and incremental beliefs and are thus predicted to bring about generally positive outcomes, particularly in terms of positive affect and self-determination experienced in sport. Performance-avoidance goals, in contrast are rooted in failure-oriented antecedents such as fear of failure and low self-esteem. These are thought to lead to a host of negative processes and outcomes such as high state anxiety, lower self-determination, and impaired performance. Performance-approach goals are complex given that they can potentially be underpinned by factors that orient an athlete to success or failure. For example, a sports participant pursuing performance-approach goals underpinned by a strong fear of failure may work hard and persist on a short-term basis, but is likely to experience greater anxiety and lower self-determination than another participant

pursuing performance-approach goals underpinned by a strong need for achievement and high competence expectancy. Finally, mastery-avoidance goals are likely to be a product of fear of failure, incremental beliefs, low perceptions of competence, perfectionism and situational cues that highlight self and task improvement but also the possibility of failure rather than success (Elliot, 1999). The consequences of pursuing such goals, as with the other three types of goals, will depend on their antecedent/reasons profile. Mastery-avoidance goals underpinned by fear of failure may lead to more negative consequences than if underpinned by incremental beliefs or perfectionism. In general, it is postulated that the motivational impact of adopting mastery-avoidance goals will be less positive than that of mastery-approach goals but more positive than that of performance-avoidance goals (Elliot, 1999; Elliot & McGregor, 2001). Empirical findings to date have largely confirmed the relationships between goal-states, antecedents and consequences (Elliot, 2005) although the conceptual overhaul of achievement goals that has accompanied the introduction of approach and avoidance goals has slowed down empirical proceedings while new theoretical aspects are debated and modified research methods/paradigms are introduced to accommodate the examination of proposed antecedent-goal-consequence relationships.

On occasion, researchers have touched upon ways in which approach-avoidance goals can be conceptualised at the socio-environmental level. Barkoukis *et al*. (2007) used the Learning and Performance Orientations in Physical Education Classes Questionnaire (LAPOPECQ - a dichotomous measure of perceived motivational climate; Papaioannou, 1994) to predict trichotomous goal-adoptions and found that the subscale 'worry about mistakes' (a performance-climate subscale) was a positive predictor of both mastery- and performance-avoidance goals. Church, Elliot and Gable (2001) also studies motivational climate in relation to trichotomous

approach-avoidance goals and found that interesting material/style (Mastery), emphasis on evaluation and assignment scores (Mastery), and perceived harsh evaluation (Performance Avoidance) were aspects of the environment that could be associated with the trichotomous framework. Overall, however, in the 5 years since this project was initiated very little research has been conducted to establish the ways that approach and avoidance goals can be promoted/stimulated and hence the findings of the project hold potential in this respect, as well as those already highlighted.

2.5.8 - Social goals

Whilst Nicholls' (1984, 1989) most recognised formulations of AGT focused on task and ego goals, his work prior to (Maehr & Nicholls, 1980), and following (Jarvinen & Nicholls, 1996), these volumes discussed ways of conceptualising competence other than the task and ego conceptions. For example, even in achievement contexts such as sport, an individual could strive to have a good relationship with others or to be accepted by others. Maehr and Nicholls (1980) included a social approval goal orientation in addition to task and ego goal orientations in their theoretical framework. They suggested that a social approval goal orientation emphasises the desire for acceptance by significant others (in this case, through conformity to norms while displaying maximal effort). Urdan and Maehr (1995) called for the resurrection of social goal orientations and highlighted their importance in achievement behaviour; suggesting a wide range of social goal orientations reflecting the wide variety of potential social bonds. These goal orientations included social welfare (i.e., to benefit the larger society by becoming a productive member), social responsibility (i.e., to be conscientious), and social affiliation (i.e., to feel a sense of belonging). Stuntz and Weiss (2003) claim that there is a multitude of conceptually and

meaningfully distinct types of social relationship, and so there must be a corresponding variety of potential social goals. On the basis of this, they also suggest that the 'social approval orientation' originally included in AGT only partially addressed the desire to maintain positive social relationships, even before it was largely ignored during the ensuing research focus on task and ego goals.

Social goals are most frequently specified in relation to peer relationships, which can be broadly divided into two categories: friendship/affiliation and peer acceptance/group membership (Allen, 2003; 2006; Bukowski & Hoza, 1989). Friendship/affiliation describes a close, mutual dyadic relationship between two individuals, while peer acceptance/group membership refers to a group-level construct of acceptance or liking by the peer group. Specifically in the sporting domain, positive team interactions, friendship, and social support from peers have been linked to sport enjoyment, motivation, expectations of success, and future participation intentions (e.g., Duncan, 1993; Scanlan, Carpenter, Lobel, & Simons, 1993; Weiss & Smith, 2002). Proponents of social goals research argue that task and ego goal orientations alone are insufficient to explain achievement behaviours in sport, because task and ego goals by definition cannot include the range of social definitions of success in achievement situations (Urdan & Maehr, 1995; Weiss & Ferrer-Caja, 2002) – especially if Elliot's suggestions are applied regarding the strict restriction of task and ego goals to issues of competence, as distinct from self-presentational and social concerns.

Allen (2006) has reported that friendships and group memberships are key motivating factors in sport, whilst Ullrich-French and Smith (2006) noted that the quality of friendship and peer acceptance also influenced motivational variables such as enjoyment and perceived competence. Allen (2003) validated a questionnaire that modelled social competence (an

indication of effectiveness in interactions with other people - Howes & James, 2002) in a notably similar way to the dichotomous achievement goals, with social affiliation goals (familiarity, attachment, mutual benefit) contrasting with social status goals (e.g. How many friends do I have? How many people think I'm good?). This may prove an interesting framework in which to examine 'social competence' given the recent re-focusing of achievement goals onto the concept of competence.

It is certainly important when considering a motivational climate which is chiefly determined by significant others and the exclusion of social considerations in this context as not-relating-to-competence could prove a costly oversight. There is indirect support for such a conceptualisation in the research presented by Wentzel (2005) examining peer influences on motivation (chiefly in the academic context). Wentzel describes how peer group membership (e.g. as a 'popular', a 'jock' or a 'goth') - which may be analogised to holding social status - carried no relationships with academic achievements or personal characteristics (in the same way that performance 'orientations' often produce equivocal results in relation to important outcome variables) (Wentzel & Caldwell, 1997). Indeed, those with the highest 'status' orientations/memberships (e.g. the 'populars') were often described as having undesirable personal characteristics such as being exclusionary, discriminatory and lacking pro-social skills (Parkhurst & Hopmeyer, 1998). In contrast, simply having an affiliated dyadic friendship at school, in line with social affiliation goals, is linked with numerous positive outcomes including self-confidence, sociability, independence, altruism and decreased aggression (Wentzel, Barry & Caldwell, 2004), as well as improved grades and test scores (Berndt & Keefe, 1995; Wentzel, *et al*., 2004) and increased engagement in school activities (Berndt & Keefe, 1995; Ladd, 1990) – which may mirror the many positive outcomes linked with mastery orientations/involvement

states.

In a recent sport-based study Stuntz and Weiss (2003) found that social goals could be more influential than achievement goals in predicting unsportsmanlike play. Thus firstly, social competence should certainly not be excluded from achievement goal research, especially when considering motivational climates which are heavily socially determined. Secondly, it is perhaps worth entertaining the idea that 'social competence' might operate in a similar fashion to task/sport competence, with a mastery (affiliation) definition and a performance (status) definition. At the very least, the analysis of qualitative data should not exclude social influences on motivation (as is sometimes recommended e.g. Elliot, 1997; 1999) but rather categorise them separately. Nicholls (1984) omitted social approval goals from his conceptualisation on the grounds that social goals was a motivational topic in its own right and blending them with task or ego goals could confound our understanding of motivation (Nicholls, Cheung, Lauer, & Patashnick, 1989). However, it may be the case, particularly when studying socially induced motivational states, that the study of social goals is essential in order to produce a more complete understanding of sport motivation, and this is increasingly the case in sport (Harwood *et al.*, 2008).

2.6 - Achievement Goal Climates

The study of what was termed *situational factors* has formed an important strand of AGT, with the most notable contribution arising from Ames's initial work (also integral at the Illinois seminar series during the 70s). This section will begin with an overview of Ames' research before moving onto a broad discussion of the literature on *motivational climate* – the construct that emerged from Ames' work. Subsequently, a number of future directions for motivational

climate research are proposed.

2.6.1 - Ames' approach

Whilst the initial work on motivational climate is credited to Ames and her colleagues (Ames, Ames & Felker, 1977; Ames, 1984a), her early work did not draw on AGT per se but examined the influences of the environment (rewards structures, incentives) on motivational processes (e.g., attributions following success and failure). Ames *et al.* (1977) examined the behaviours of 40 sixth-grade boys following success and failure in competitive and non-competitive situations. Boys were placed in matched-ability pairs and assigned to either fail or succeed. Under competitive conditions, only the 'winner' received a reward but under non-competitive conditions both could chose a prize for participating. Competitive conditions led to significant increases in self-punitive behaviours following failure (rating self as lower ability and undeserving of reward) but 'ego-enhancing' behaviours following success (rating self as higher ability and deserving of rewards). No differences in attribution were found in the non-competitive condition. In a later study, Ames (1984a) created a 'competitive' goal structure by testing children in pairs against each other, and 'individualistic' goal structure by testing children on their own and encouraging them to improve their scores. The outcome (high versus low success) was manipulated by changing the number of solvable puzzles a child was given. Following testing, children were asked questions about what they were thinking during the tasks. In the competitive condition, children tended to link their own *ability* to the outcomes, whereas, in the individualistic condition, children attributed outcomes (success/failure) to *effort*. Further, the individualistic condition led children to 'self-instruct' (e.g. "I need to take my time over this", "I'm going to think carefully about this") more than the competitive condition. In Ames' own words these children "behaved much like Diener and Dweck's (1980) mastery-oriented children

and reflected what Nicholls has called task involvement." (p.485). These differences in behaviour as a function of *situational conditions* (cf. goal/reward structures) suggested that differing reward structures influence the salience of various informational sources in self-evaluations of ability, the affective impact of success and failure and subsequent perceptions of ability From here, Ames (1984b) defined qualitatively different 'motivational systems' in children, which bore a more than passing resemblance to the conceptualisations of task and ego involvement. Although not directly grounded in achievement goal theory, the competitive and individualistic conditions (as well as co-operative goal structures that formed her work) are closely analogised to what were later termed 'performance involving' (i.e., ego) and 'mastery involving' (e.g., task) climates, respectively.

Ames and Archer (1988) and Ames (1992a) continued investigating these performance-versus-mastery involving classroom environments proposing that situational cues, chiefly controlled by the teacher, will influence the salience of different achievement goals. In non-classroom settings, significant others and important social agents were proposed to determine goal salience by the nature of their "instructional demands" (1992a; p.262). Further, Ames (1992b) asserted that the subjective meaning, or individual's perception of the motivational environment was the critical factor in predicting subsequent achievement goals and patterns of behaviour. This body of literature aided researchers in defining two types of motivational climate: a 'mastery' climate where the criteria for evaluation are self-referenced and people are viewed as competent when they have made progress, accomplished a task or learned something new; or a 'performance' climate where the criteria for evaluation are heavily other-referenced and the emphasis is upon outperforming others and, notably, making as few mistakes as possible (Blumenfeld, 1992). Based on Epstein (1989), Ames (1992a) then described specific classroom

structures that were likely to invoke ‘mastery’ or ‘performance’ climates; these six achievement structures were ‘task’ (design of tasks), ‘authority’ (location of decision-making), ‘recognition’ (distribution of rewards), ‘grouping’ (manner and frequency of grouping), ‘evaluation’ (standards for performance) and ‘time’ (pace of learning). The initial letters of the six structures create the acronym TARGET – and using each structure, a performance or mastery climate could be emphasised by the teacher or other salient social agents (See Table 2.6.1 below).

Table 2.6.1: Descriptions of mastery and performance climates in accordance with the TARGET framework of goal structures adapted from Ames, 1992b). Adapted from Ntoumanis and Biddle (1999)

	Mastery	Performance
Tasks	Challenging and diverse offering chance for all to find involvement	Absence of variety and challenge favouring participants who excel in these few tasks
Authority	Students are given choices and leadership roles	Students do not take part in the decision-making processes
Recognition	Private and based on individual progress	Public and based on social comparison
Grouping	Mixed ability groups promoting cooperative learning and peer interaction	Groups are formed on the basis of ability (best to worst)
Evaluation	Based on mastery of tasks and on individual improvement	Based on winning or outperforming others
Time	Time requirements are adjusted to personal capabilities	Time allocated for learning is uniform to all student – favouring those who are already adept

2.6.2 - Manipulations of situational goal structures in sport

Through manipulating the criteria derived from the TARGET framework, early research attempted to create environmental conditions that would foster mastery or performance involvement in participants. Examples of these studies included Duda and Chi (1989; basketball), Marsh and Peart (1988; aerobics classes), Lloyd and Fox (1992; fitness classes) and Theeboom De Knop and Weiss (1995; children’s martial arts classes). All four of these studies supported theoretically specified links between climate/involvement and participants’ behaviours or cognitions. In Lloyd and Fox’s (1992) six-week study, low-performance oriented participants

in the performance-involving climate became more performance-oriented over the course of the study and high-performance oriented participants in the mastery climate became less performance-oriented. This is one of very few studies demonstrating an influence of climate upon goal orientation. Such a theoretical link between climate and orientation has been suggested on a number of occasions (Treasure & Roberts, 1995; Duda, 1992; 1993; Nicholls, 1989) but experimental investigations of sufficient length have been scarce. More recently, studies by Smith, Smoll and Cumming (2007; 2009) have demonstrated reductions in anxiety and changes in goal-orientation in relation to perceptions of the motivational climate.

Whilst notable for their field-based, experimental designs, several difficulties exist that undermine the interpretion of these experimental studies in relation to Nicholls' assertions concerning the interactional nature of achievement striving (e.g. Figure 2.5.4.1). Firstly, in some cases no account was taken of the independent effect of goal orientations on motivational outcomes, and so limited insight can be gained into the relative influence of dispositional and situational characteristics on mastery and performance involvement. Secondly, no measure was taken of participants' *perceptions* of the climate, perhaps misguidedly assuming that the climate manipulation was uniformly interpreted and applied by participants within each condition. Further, no measures of mastery and performance involvement were taken to determine degrees of situational change in achievement goals. Nevertheless, such studies laid down a marker for the testing of achievement goal theory in true-to-life settings and it is unfortunate that this line of research has stuttered slightly in the intervening period (instead focusing on *perceived* motivational climate research). This design gave way to what has since become the most dominant means of assessing 'situational factors' in achievement goal theory – the measurement of *perceived* motivational climate.

2.6.3 - Perceived motivational climate in sport and physical education

Following Ames' (1992b) assertion that the perception of the motivational environment was critical, a number of questionnaires emerged to assess the perceived situational and contextual goal emphases in sport and physical education settings. These included: the Learning and Performance Orientations in Physical Education Classes Questionnaire (LAPOPECQ – Papaioannou, 1994; 1995; 1997), the Physical Education Class Climate Scale (PECCS – Goudas & Biddle, 1994), L'Echelle de Perception du Climat Motivational (EPCM - Biddle, Cury, Goudas, Sarrazin, Famose, & Durand, 1995), the Perceived Motivational Climate in Sport Questionnaire (PMSCQ - Seifriz, Duda & Chi, 1992), PMCSQ-2 (Newton & Duda, 1993) and the Motivational Climate Scale for Youth Sports (MCSYS - Smith, Cumming & Smoll, 2008). These questionnaires, their strengths, weaknesses and associated findings are reviewed in Harwood *et al.* (2008) and Duda and Whitehead (1998). However, in succinctly summarising the sub-factors of these scales: i) effort, ii) learning/skill-improvement, iii) perceived important role, iv) cooperative learning and v) 'mistakes-are-part-of-learning' are all key themes of a mastery climate; whereas i) interpersonal comparison (and rivalry), ii) punishment/fear of mistakes, iii) unequal treatment of players and iv) 'achieving-without-effort' are consistent themes of performance climates. Notionally, any individual leading or participating in sporting activities can influence the motivational climate by differentially emphasising the above themes and it is immediately clear that coaches/teachers, parents and peers are important social protagonists of such climates.

Whilst the development of these questionnaires has contributed significantly to our understanding of the role played by perceptions of contextual influences on motivation, the measurement of motivational climate remains controversial (see 2.8.9 later in this chapter). In

addition to what is presented here, Duda and Whitehead (1998) provide a comprehensive summary and critique of the different measures of perceived motivational climate, their origins and properties, and the conceptual appropriateness of certain scales. Ideas for advancements in measurement and other methodological issues will follow shortly. First, however, it is important to summarise what has been learned from the research that has employed these scales (Ntoumanis & Biddle, 1999).

2.6.4 - Correlates of perceived motivational climate

In a similar vein to research investigating dispositional goal orientations (Duda & Nicholls, 1992), interest has been equally high in the motivational, affective and behavioural *correlates* of perceived mastery/performance climates in sport and PE. An overview of this research is presented below. Correlates are listed using Roman numerals.

I - Beliefs about causes of sporting success: According to theory, a task/mastery emphasis will be linked to belief that *effort* is necessary for success while an ego/performance emphasis will link to beliefs that success stems from greater (i) *ability* (finite and unchangeable), and possibly (ii) deception or 'gamesmanship'.

The evidence available supports both of these links between perceived climate and sport participants' beliefs about causes of success (Seifriz, Duda & Chi, 1992; Treasure & Roberts, 1998; 2001; Newton & Duda, 1999; Carpenter & Morgan, 1999) although *causality* cannot be established from such correlational data. However, the implications are still important, as participants in a (perceived) performance climate are likely to believe that their potential to succeed is limited by ability (this is believed to both undermine their motivation to continue following failures, and promote the use of deception or foul-play in order to succeed) as

increasing effort is not believed to increase the chances of succeeding (see earlier sections). Conversely, participants in (perceived) mastery climates are likely to ascribe failure to a lack of effort and try harder. There is no link between mastery climate and deception beliefs, so these sport performers are unlikely to resort to deception when faced with failure. Thus, arguments for *creating* climates high in task/mastery cues are supported by the existing evidence.

II - Beliefs about the purpose of sport: Sport is regularly cited as an eminent vehicle for the learning of life skills and adaptive coping strategies. However, the evidence available suggests that this perception is only likely when a mastery climate is perceived by participants (Ommundsen & Roberts, 1999; Ommundsen, Roberts & Kavusannu, 1998) as only mastery climates link to the belief that sport serves the purpose of improving and challenging ourselves. Performance climates, on the other hand, appear to link to the belief that sport is for the enhancement of social status. Thus, *if* children are encouraged to participate in sport in order to become 'better people', *then* the current evidence specifies that a mastery climate should be prominent so that participation does not become an exercise in linking an (apparently unchangeable) ability-level to social status.

III - Positive affect – enjoyment, intrinsic interest and satisfaction: Theoretically, a focus on task/mastery should promote challenge and autonomy, and cause sport participation to be seen as the end in itself (intrinsic motivation and enjoyment), whilst a focus on ego/performance should promote the idea that the activity is a means-to-an-end: the demonstration of superior ability. This should create pressure and tension and reduce positive affect. The evidence, to date, shows a clear link between perceptions of mastery climates and positive affect in sport participants – meaning that (perceived) mastery climates tend to be more enjoyable, involving and interesting (Balague, Duda & Crespo, 1999; Dorobantu & Biddle, 1997; Kavussanu &

Roberts, 1996; Liukkonen, Telama & Biddle, 1998; Newton, Duda & Yin, 2000; Parish & Treasure, 2003; Treasure & Roberts, 2001; Whitehead, Andrée & Lee, 2004). The proposed negative relationship between perceived performance climate and positive affect is only supported in some of the studies (Balaguer *et al.,* 1999; Liukkonen *et al.,* 1998; Parish & Treasure, 2003; Treasure & Roberts, 2001; Whitehead *et al.,* 2004), meaning that performance climates are unlikely to promote positive experiences for sport participants, and may even reduce enjoyment. This discrepancy in findings concerning perceived performance climates may be caused by the failure of current measures to differentiate between the approach and avoidance aspects of climate; i.e., a climate emphasising winning and success may be more adaptive than one emphasising avoiding loss or deselection.

IV - Negative affect – pressure, tension, anxiety, distress and worry: The majority of studies examining this correlate suggest that a perceived mastery climate *either* does not relate to negative affective experiences for participants (Escarti & Gutierrez, 2001; Newton & Duda, 1999; Ntoumanis & Biddle, 1998), *or* that a mastery emphasis *reduces* negative affect (Newton *et al.,* 2000; Papaioannou & Kouli, 1999; Pensgaard & Roberts, 2000; Walling, Duda & Chi, 1993). In contrast all the above-listed studies also reported a positive association between perceptions of a performance climate and anxiety, worry, distress, and dissatisfaction with the team. Hence, when participants perceive performance climates, participants are usually prone to experience negative feelings, while those perceiving a mastery climate are usually not. On current evidence, therefore, it seems acceptable to reason that the creation of a mastery climate by important social agents will lead to less negative affect than a strong performance (comparative, win-at-all costs) climate.

V - Perceived competence: A number of studies (Balaguer, Duda, Atienza & Mayo, 2002;

Balaguer, Duda & Crespo, 1999; Digelidis, Papaioannou, Laparidis, & Christodoulidis, 2003; Escarti & Gutierrez, 2001; Goudas & Biddle, 1994; Kavussanu & Roberts, 1996; Liukkonen, Telama & Biddle, 1998; Ommundsen & Roberts, 1999; Sarrazin, Vallerand, Guillet, Pelletier & Cury, 2002; Standage, Duda & Ntoumanis, 2003a; b) have all supported the theoretically positive link between a perceived mastery climate and perceived competence, whereas no association emerged in ten of these studies between a perceived performance climate and perceived competence. Cury, Da Fonseco, Rufo & Sarrazin (2002) – using the PECCS - reported a negative association between perceived performance climate and perceived competence, as did Sarrazin *et al.* (2002). The central conclusion that can be drawn from this research is that perceptions of a mastery climate appear to link strongly with participants' perceived competence which is not the case for perceptions of a performance climate. In fact, in some cases a perceived performance climate is linked with lower perceptions of competence.

VI - Adoption of learning versus competitive strategies: Roberts and Treasure (1992) suggest that a task/mastery emphasis promotes internal standards of comparison and striving for improvement leading participants to seeking challenging tasks, persist and participate more in training Conversely, an ego/performance emphasis promotes interpersonal comparisons, which are relatively unstable outcomes and therefore result in the use of *varied learning strategies* (e.g. no association). Gano-Overway and Ewing (2004), Yoo (1999), Xiang and Lee (2002), and Magyar and Feltz (2003); Ntoumanis, Biddle and Haddock (1999), Ommundsen and Roberts (2001), Ommundsen, Roberts and Kavussanu (1998) and Treasure and Roberts (2001) have reported that sport participants who perceive a mastery climate use more adaptive strategies and learning strategies while playing and training. No link between perceived performance climate and strategy use existed in the majority of these studies. Negative associations with performance

climates include Magyar and Feltz (2003), who found that a perceived performance climate *reduced* the tendency of participants to confidently accept tuition from their coach, and Ryska, Yin and Boyd (1999), who found a link between perceived performance climates and self-reported self-handicapping (avoiding difficult tasks). Ntoumanis, Biddle and Haddock (1999) reported that participants reporting a performance climate also indicated a tendency towards avoidance and emotional-focused (venting, anger) methods of coping as opposed to solution focused coping and seeking social support, which occurred in a perceived mastery climate.

VII - Goal orientations: A number of studies have supported a link between perceptions of climate and participants' own respective goal orientations (e.g., Digelidis *et al.,* 2003; Standage *et al.,* 2003; Williams, 1998; Xiang & Lee, 2002). In establishing the direction of this link (i.e., goal orientation-biases-perception vs. climate-influences-goal orientation) we can draw from *intervention* studies that have been conducted. Lloyd and Fox (1992) and Todorovich and Curtner-Smith (2002) are two examples of studies where changing the climate has been shown to influence participants' goal orientations over time. However, it is certainly plausible that within a given situation or sporting context, a participant's goal orientation/disposition may cognitively bias their selection and perceptions of motivational cues in the climate. In other words, individuals may be more sensitive to cues or behaviours that correspond to their goal orientations. For example, a high performance/low mastery oriented athlete may seek out any behaviours of a coach that relate to winning, social evaluation and public recognition even if such behaviours do not accurately represent the behaviours, or intended messages of the coach (or parent, or peers). Indeed, this athlete may report a 'high performance/low mastery' climate when the coach may be intending to offer numerous mastery cues that the athlete simply ignores or fails to process. Further research is still required to carefully investigate such issues (Duda,

2001), although a cluster of recent studies demonstrated very low within-class agreement regarding perceptions of the motivational climate (Cumming, Smith, Smoll & Grossbar, 2007; Papaioannou, Marsh & Theodorakis, 2004; Morgan & Kingston, 2008; Morgan, Sproule, Weigand & Carpenter, 2005), meaning the 'objective' climate may bear little or no relation to what is subjectively perceived. In the immediate here and-now, orientation is likely to bias climate perception, but in the longer term it seems that climates can influence orientations which may prove significant in the applied arena (Duda, 1993).

VIII - Moral development: Theory suggests that a mastery approach links to concern over effort and improvement so opponents are seen as allies in testing and improving skill, meaning foul play and cheating is considered amoral and unsportsmanlike. In contrast, theory suggests a performance climate emphasises winning at all costs and so foul-play/cheating are considered acceptable means to this end - promoting the use of foul play, deception and rule-breaking (Duda *et al.,* 1991*;* Ommundsen, Roberts, Lemyre & Treasure, 2003). The current evidence is coherent with achievement goal theory and consistent with parallel research into goal orientations, reviewed by Harwood *et al*., 2008); revealing a strong body of evidence that supports the link between perceived mastery climate and higher moral standards in sport (respect for the rules, officials and opposition; avoiding cheating or intentionally injurious behaviours). Ommundsen, Roberts, Lemyre and Treasure (2003), Fry and Newton (2003), Gano-Overway, Guivernau, Magyar, Waldron and Ewing (2005), Boixadós, Cruz, Torregrosa and Valiente (2004) and Miller, Roberts and Ommundsen (2004) all reported a link between perceived performance climate and positive moral beliefs and standards. Similarly, Ommundsen, Roberts, Lemyre and Treasure (2003), Fry and Newton (2003), Kavussanu, Roberts and Ntoumanis (2002), Boixadós, Cruz, Torregrosa and Valiente (2004) and Miller, Roberts, Ommundsen (2004) reported a link between

a perceived performance climate and lower moral standards.

IX - Motor learning/development: An under-explored yet valuable line of research has tentatively illustrated how the creation of mastery climates (e.g., using the TARGET framework) results in enhanced motor learning, relative to performance climates and 'traditional' methods (Theeboom, De Knop & Weiss, 1995; Valentini & Rudisill, 2004a; b). Although not explicitly suggested in the theory, Papaioannou and Kouli (1999) discuss this finding in terms how reduced confidence and increased anxiety attributable to performance climates *should* reduce motor learning and performance through cognitive distraction and inappropriate muscle tension. Alternatively, a task climate enhances the potential for motor learning through optimal learning strategies, positive experiences, higher persistence (Whitehead *et al.,* 2004) as well as higher perceived competence.

X - Flow experiences: Jackson and Roberts (1992) found that participants with a high talk orientation tended to experience flow states more often. Similarly, Kowal and Fortier (2000) found that participants who perceive a mastery climate also reported increased experiences of flow, whereas a perceived performance climate showed no relationship to the reporting of flow.

2.6.5 - Summary

In summarising the above findings, there appears to be a strong case that the perception of an environment high in mastery cues is likely to produce numerous adaptive and desirable consequences for the participation and development of sports performers. In contrast, when participants perceive performance climates there are rarely positive or adaptive motivational patterns displayed. In fact perceived performance climates are often associated with undesirable beliefs and patterns of behaviour. It is imperative that future research establishes the direction of

causality in these relationships, in order to determine whether the creation of climates high in mastery cues leads to the perception of a mastery climate and the numerous associated positive motivational consequences listed above, and whether perceived performance climates are uniformly negative, or only negative if there are no mastery cues present, or perhaps if they become negative when the focus is more avoidance than approach. In order to achieve this it is necessary to understand the exact behaviours, values and interactional styles that produce perceptions of these climates.

2.7 - The athletic career progression

In recent years, there has been an increased research interest in the athletic career progression and its implications for the experiences and demands on athletes (Bloom; 1985; Côté, 1999; 2002; Côté & Hay, 2002a; 2002b; Côté, *et al.,* 2003; 2007; Pummell, Harwood & Lavallee, 2008; Strachan, Côté & Deakin, 2009; Wylleman, Alfermann & Lavallee, 2004). In particular, Bloom (1985), Côté *et al.* (2003) and Wylleman *et al.* (2004) have all proposed models of the athletic career progression. In each case, the early career is characterised by participants who are generally prompted to try a number of different sports and see if they either enjoy it or have some talent. This period is termed 'initiation' (Côté *et al*., 2003) or 'sampling' (Wylleman *et al.,* 2004). Following this, athletes tend to focus on one or two sports in which they specialise, and seek to learn the key skills, tactics and rules. This period is termed 'specialising' and is characterised by gradual changes from free play and deliberate play towards deliberate practice, from helpful/friendly coaching to specialist coaching, from significant parental involvement towards indirect parental involvement, and from a 'functional' role for peers (providing team-mates and opponents) towards a valuable role supporting athletes' emotional

needs. Indeed, the models suggest the influence of parents' decreases during the 'mastery' or 'investment' stage, with peers, coaches and (for some) partners being the most influential. For those athletes that do continue into the investment-mastery stage, their 'arrival' is likely to be signified by the completion of all these transitional processes (Côté *et al*., 2003). This 'investment-mastery' stage can begin from approximately 15-years of age, depending on the sport, although 18-19 is proposed to be the average (Wylleman *et al.,* 2004). This stage can be considered to continue until retirement (e.g., Côté et al., 2003), or it can take the performer to a state of 'maintenance' – where key skills are at their pinnacle and the challenge becomes maintaining these skills (e.g., Wylleman *et al.,* 2004).

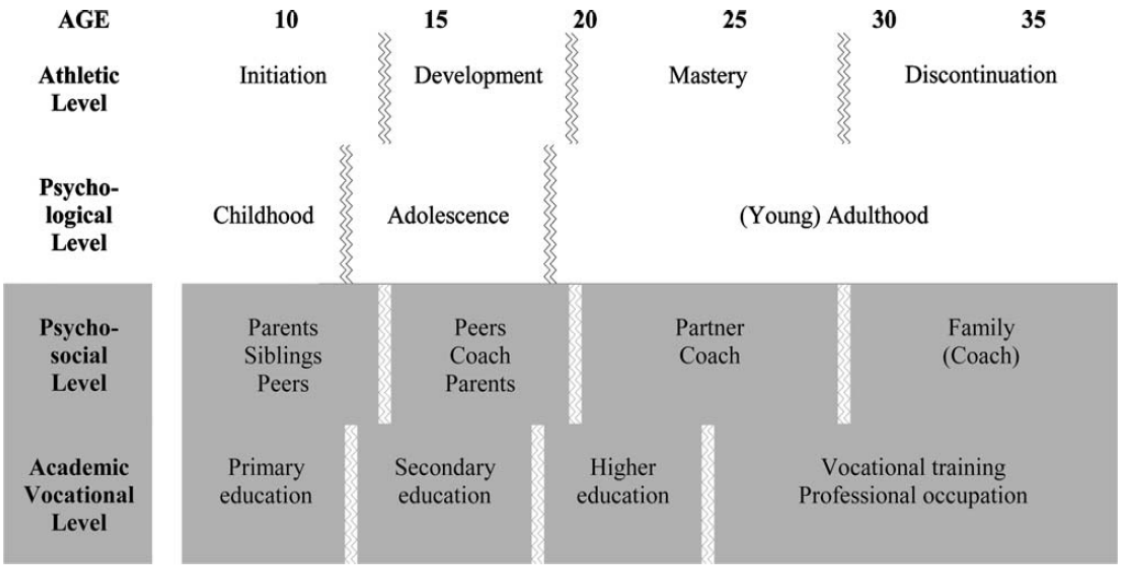


Figure 2.7.1: Wylleman et al.'s (2004) developmental model of transitions faced by sport participants at the athletic, psychological, psychosocial, and academic/vocational levels (first specified in Wylleman & Lavallee, 2003).

To try and summarise this literature, whilst the existing models differ in their specifics, certain key commonalities can be drawn out. 1) Approximate ages – generally, career initiators are 4-12 years old, specialisers are 11-18 years old, and athletes at the investment-mastery stage

are between 15-30 (Bloom, 1985; Côté, 1999; Côté & Hay, 2002a; Wylleman *et al*., 2004); 2) Number of sports – whilst the initiation stage is characterised by participation in numerous and diverse sports, the specialising stage is characterised by a decrease, usually down to one, and the investment-mastery stage almost invariably involves participation in a single sport; 3) Deliberate play vs. deliberate practice – Côté *et al.* (2003; 2007) describe a gradual shift across the career from deliberate play (fun and often non-directed) towards deliberate practice (targeted and often repetitive); 4) Role of coach – this is described as progressing from a helpful and friendly coach, sometimes not trained/experienced at the sport, into more specialised coaching with increased structure and finally into specialised and elite coaching (Bruner, *et al*. 2008; Côté, *et al.,* 2003; Strachan, *et al*., 2009); 5) Role of parents – in the first two career stages the role of parents is often described as quite intensive, dropping off during late adolescence as the athlete seeks independence (Côté & Hay, 2002b; Côté, *et al.*, 2003; Pummell *et al*., 2008); 6) Theories of athlete career progression also denote a changing roles for peers, from a functional role (akin to 'making up the numbers') at the sampling stage, into friendships and supporting practice during the specialising stage, and becoming a pivotal role supporting emotional and material needs during the investment-mastery stage (Bruner, et al., 2008; Côté, 2002; Côté, *et al.*, 2003; Strachan *et al*., 2009). These commonalities may not be explicit when examining each model independently, but the above represents an attempt to synthesise several separate models and identify key trends. It should also be noted that differences should be expected between different sports, and cultures.

2.8 – Key conceptual issues for the current research

2.8.1- Key social agents in influencing motivation

There is a growing requirement to understand which social agents significantly influence

the athlete's motivation at different stages of the athletic career. From the previous summary of questionnaires that measure perceived motivational climate, it is possible to identify coaches/teachers, parents (mother/father) and peers as common determinants of motivational climate. Other influences identified to date also include National Governing Body reward structures and 'sporting heroes' (Carr & Weigand, 2001). It is also important to establish whether national governing bodies, selection/development policies and wider social cultures can affect a sporting motivational climate (Harwood & Swain, 2001) and if they do, how much? And is this knowledge helpful?

Given the potential and identified limitations of some of the above climate scales in isolation, the following sections looks more closely at how the i) instructors (coach/teacher), ii) parents and iii) peers can influence motivation by synthesising findings both from sport and PE and also more mainstream social psychology. These social agents are singled out because their immediacy and salience to sport participants is likely to be greater, and therefore they are likely to have the strongest influences on motivation and other related outcomes.

2.8.1.1 - The instructor – coaches and teachers: Much of the research examining motivational climate has done so at a relatively general level (e.g. 'outcome-without-effort orientation' in the LAPOPECQ – it is not clear social agents determine this). However, overall it is possible to assert that the instructor can i) differentially emphasise learning and personal mastery (e.g. LAPOPECQ, PECCS) versus normative performance (e.g. PMCSQ-2, EPCM), ii) induce fear of mistakes (e.g. EPCM, PMCSQ-2) or alternatively convey that mistakes are part of learning (e.g. PMCSQ-2), and additionally coaches/instructors can iii) treat the normatively more able players preferentially (e.g. PMCSQ-2) as opposed to involving every player and making them feel valued (e.g. PMCSQ-2). Instructors can also: iv) contribute to an intra-team rivalry and

competition for places (e.g. PMCSQ-2) or alternatively promote co-operative learning (e.g. PMCSQ-2). There is also evidence that coaches/instructors can influence perceived motivational climate by v) conveying the belief that success is a result of ability and not effort (e.g. LAPOPECQ) or promoting effort and hard work as the route to excellence (e.g. PMCSQ, PMCSQ-2). The Motivational Climate Scale for Youth Sport replicated this pattern but does not contain discrete subscales, in order to facilitate comprehension by young athletes (Smith *et al.,* 2007)

Firstly, not all of the observed instructor influences on motivational climate relate directly to the idea of competence. For example, un/equal recognition and success from ability/effort beliefs are, at best, indirectly linked to an individual's achievement-goal state, in the same way that antecedent variables are linked to goal states in the hierarchical model. Thus, it is important to establish whether direct influences on definition and valence of competence should be the sole focus of measure of perceived motivational climate, or whether an antecedents approach should be taken in line with Elliot and colleagues recommendations.

Secondly, while the contrasting themes listed may represent a strong synthesis of concepts from the existing research, it is important to establish *how* these themes/ideas are presented and interpreted; through behaviours displayed, beliefs and values conveyed, or by affective responses to situations; in order for future intervention work to be effective. To this end, items within each of the listed scales contain stems such as "on this team the coach gets mad when…", which would be considered an affective response; "on this team coach believes…", which would be considered a (conveyed) belief/value; and "on this team the coach takes failing students out of drills/the coach helps players improve their skills", which qualify as demonstrable behaviours that influence motivational climate. Thus, the separate consideration of affective responses,

beliefs and values conveyed and behaviours demonstrated is important within each climate subscale, not least because an absence of one or the other mechanism (e.g. behaviour without affect or belief) is unlikely to be as effective. This is likely to be an important consideration in analysing qualitative data and evaluating motivational climate scales.

2.8.1.2 - Parents: The favoured scale concerning parents' contributions to motivational climate is the PIMCQ-2 (White, 1996) which measures 'learning/enjoyment climate', 'worry conducive climate' and 'success without effort climate' and *can* be applied to both the father and the mother (e.g. Carr & Weigand, 2001; White, 1998). Immediately it is apparent that there is not such a richness of subscales as with instructors, where is it possible to dichotomise different subscales into performance-versus-mastery emphases. Additionally, conceptual and empirical weaknesses exist with this scale (Duda & Hall, 2001) that suggest any findings from it should be interpreted cautiously. Further, on reflection, the items of the scale are often difficult to classify into mechanisms (behaviours, beliefs or affective style), for example; "my mother makes me worry about failing" – is this a behaviour, belief of affective style? Given the tremendous influence of parents in children's development and socialisation, it may be necessary to consider influences beyond the performance situation (training/competing).

Pomerantz, Grolnick and Price (2005) are relatively thorough in their review of what parents can do to influence their children's definitions of, and orientations towards, competence and motivation (albeit not specifically addressing sport). Behaviourally, they suggest parents should be involved in their children's pursuits in order to promote learning, foster closeness/relatedness with the child and reinforce self esteem by communicating belief in the child by investment, and also that the activity is valued. Several studies have now shown parental

involvement in academic pursuits leads to enhanced academic achievement (Keith *et al.,* 1993; Pomerantz & Eaton, 2001; Senechal & LeFevre, 2002). They also recommend that parents provide a structure for learning/improvement for the child, by offering guidance, expectations and specific feedback – basically providing assistance in a manner that facilitates children's skill acquisition; this could be termed 'competence support' (Grolnick, 2003). This support is also linked to heightened achievement and task engagement, even in very young children (Hokoda, Fincham, 1995; Winsler, Diaz, McCarty, Atencio & Chabay, 1999). It is also a beneficial behaviour to promote autonomy in the child as opposed to controlling them (Grolnick, 2003) which tends to involve attending whilst not controlling, allowing exploration and mistakes, and encouraging children to generate their own strategies for novel/difficult tasks. In contrast, controlling behaviours include commands, directives, instructions and perhaps punishments (including the withdrawal of affection) which reduce autonomy. Autonomy support is also linked to increased task engagement (Kelley, Brownell & Campbell, 2000), increased perceived competence (Grolnick, Ryan & Deci, 1991) and graded achievement (Hess & McDevitt, 1984). Additionally, parents can emphasise and reinforce effort and hard work, or take a more 'entity-based' approach (cf. Diener & Dweck, 1978; 1980) that skill and ability are fixed attributes and unchangeable. This aspect is reconcilable with parental 'learning climates' and 'success without effort' climates found in existing climate scales. The reinforcement of effort over stable ability is linked to increased perceived competence (Kamins & Dweck, 1999), subsequent mastery orientations (Hokonda & Fincham, 1995) and the child's own incremental/entity beliefs (Kempner & Pomerantz, 2003).

In terms of beliefs and values, there is evidence that parents who believe their children to be competent encourage more optimal outcomes in the child, although there is a caveat here in

that the parental appraisal of competence depends heavily on the child's actual ability and additionally, inaccurate parental beliefs are seen as patronising (Miller, Manhal & Mee, 1991; Peet, Powell & O'Donnell, 1997). It is however, important for parents to value the particular achievement activity (school, sport) as this provides additional incentive for the child to seek competence in this domain (Pomerantz *et al.,* 2005). In terms of affective style, it appears that children who have secure bonds with the parents (thus meeting the need for relatedness) are more able to then seek competence and autonomy in achievement domains (Allen, Marsh, McFarland, McElhaney & Land, 2002). Thus, creating and maintaining a secure attachment to a child (cf. Ainsworth *et al.,* 1978) and also keeping this attachment relatively independent of achievement activities (e.g. love is not dependent on success) is optimal for children's development. This deeper understanding of how parents can influence children's motivation may be important when interpreting interview data and conceptualising climate on the basis of questionnaire subscales.

Fredricks and Eccles (2005; p.4) propose three main mechanism by which parents may influence their child's participation in sport: "(a) by being a role model either as a coach or by participating in athletics themselves; (b) by interpreting their children's experience and giving them messages about their athletic ability and the value of participating in sport; and (c) by providing emotional support and positive athletic experiences for their children's involvement in sport". In particular, parents' ratings of their child's sporting ability significantly correlate with changes in the child's attitude to sport as they grow older (Fredricks & Eccles, 2002), and parents' beliefs in relation to gender roles in sport also associated with self-rated competence and value-beliefs of children (Eccles, 1993; Fredricks & Eccles, 2002). Whilst this research represents an important contribution to our understanding of whether, and in what respects,

parent attitudes influence athlete motivation, it would still be difficult to offer parents advice on how best to act around their athletes, or how to endorse certain key values. The understanding of specific behaviours, the contexts they occur in, and their subsequent impact/influence remains a missing link in this body of research, and the current thesis set out to begin bridging this gap between theory and practice by examining *inter alia* the parental behaviours that athletes perceive to be relevant to their motivation. It is an explicit attempt to 'unpack' such conclusions as "One possible explanation is that parents convey these beliefs to their child *through both subtle and more overt messages* about their children's abilities and the value the parents themselves attach to their children's participation" (Fredricks & Eccles, 2005; p.22 – italics added). What are these subtle/overt messages? How are they conveyed? Where and when does this happen? Are the outcomes consistent or does it depend on other considerations?

Recent qualitative studies have examined the roles of parents in more detail, identifying such behaviours as additional coaching/instruction, feedback and commentary, emotional responses and emotional intensity, autonomy support, controlling behaviours, maintaining focus, social support (Gould, Lauer, Rolo, Jannes & Pennisi, 2008; Holt, Black, Tamminen, Mandigo & Fox, 2008; Holt, Tamminen, Black, Mandigo & Fox, 2009) and the 'conditionality' of support - whether parents emphasise a return for their 'investment' or assure the athlete that their support is unconditional (Gould *et al.*, 2008; see also Assor, Roth & Deci, 2004). These developments represent an initial response to the above questions, but there remains a requirement to study athletes outside the 17-25 university/collegiate (i.e., specialisers) population, and likewise it would arguably be very helpful if such findings could be synthesised and understood jointly, as opposed to being conducted in relation to different phenomena and with different emphases (e.g., social support, defining parental influences, testing/expanding SDT etc.). By carrying out

qualitative research with a specific focus on motivation, this thesis aims to contribute significantly to the motivational literature but it may also contribute to the above research examining the ways that parents may influence their child's overall involvement in sport.

2.8.1.3 - Peers – team-mates and classmates: In contrast to coach-athlete and parent-athlete influences, peer relationships are more numerous and therefore more multifaceted. On the one hand, team-mates and competitors can influence how a player defines and seeks competence. On the other, players also participate in sport in order to establish and build friendships and seek social validation. In terms of task/sport competence, existing questionnaires can be cited showing how team/class-mates can differentially endorse success-as-learning versus success-as-outperforming-others (e.g. LAPOPECQ, PECCS), involvement and important roles versus neglect and avoidance (PMCSQ-2 – note that these subscales may relate more to social competence than sport/task competence). In terms of 'social competence', Smith (1999; 2003) has shown that performers often participate in order to spend time with their best friend and the quality of relationships often influences motivation (participation, persistence) independently of task/sport competence. When studying motivational climate which is inherently influenced by key social agents, such considerations cannot be overlooked. In a more holistic approach, Vazou *et al*. (2005) used qualitative methods to establish: i) improvement emphasis, ii) equality emphasis, iii) relatedness support, iv) concern over mistakes (or lack of), v) co-operation and teamwork, vi) success-from-effort emphasis, vii) intra-team competition, viii) success-from-ability emphasis, ix) autonomy support, x) evaluations/assessments of competence and xi) intra-team conflict as the key dimensions of a sporting motivational climate with adolescent children from various sports and levels. These different aspects of peer climate all relate in some way to

task/sport competence, 'social competence' or both. For example, the 'success-from-effort/ability' dimensions reported clearly relate chiefly to sporting competence, whereas relatedness support and co-operation/teamwork dimensions may relate more significantly to building either the number or quality of social relationships.

As a final consideration, these perceived influences on how players define and seek to demonstrate competence (sport and social) may interact quite significantly. For example, it may be difficult to make new friends on a team where a player is poor and the standard is high as team-mates may not wish to relate to a poor player. Likewise, a highly competitive player may not wish to persist long or foster relationships in a group where the sport is played chiefly for fun in the knowledge that none of the players are going to 'make-it'. Additionally, peers may gravitate towards a player who is normatively competent and successful (e.g. wishing to pick up hints and tips), leading to numerous but shallow friendships, whereas less able players may unite in their adversity and form one or two deeper, mutually beneficial friendships. One study that may illustrate this interaction is Olympiou, Jowett and Duda (2008) which examined the influences of the quality and nature of coach-athlete relationships on motivational variables and found that the quality of this relationship correlates positively with perceived mastery climate and negatively with perceived performance climate. This insight into how relationships exert a direct influence upon motivation may serve to illustrate the issue of *quality of relationships* of certain social agents (e.g., how likely are we to be influenced by the behaviour or values of coaches/peers that we do not *like*). If a certain social agent is not valued by an athlete, then that agent's perceived mastery and/or performance involving behaviour may carry little or no motivation-related salience whatsoever. Hence, the argument for considering social aspects and the possibility of 'social competence' as a motivation in sporting contexts is strong. Whilst it has

been raised in relation to peer-influences on motivation, this does not preclude its examination concerning coaches and parents, as this is especially likely to be one factor that changes over the developmental period that this research sets out to study.

2.8.2 - Level of influence – Situation, contexts and socialisation:

There is also an issue of whether climate measures are examining a specific situation (e.g. training, pre-competition) or the context of being 'in this team'. On the one hand, situational influences are theorised to have the strongest influence on goal involvement (cf. Nicholls, 1984; 1989), but on the other hand the context is likely to be easier to measure (e.g. away from competitions/training venues, less interruption) and more stable over time. Equally, it is possible that longer-term contextual considerations may also influence momentary motivation. The temptation to find a happy-medium may have led researchers to develop scales that (arguably) confound the analytical levels of situation and context together. However, from the point of view of conducting good research and promoting more informed applied practice, it is necessary to address this issue.

The conceptual difficulties surrounding analytical levels highlight the central question 'what is a motivational climate?' According to Nicholls' theory, the concept should be restricted to situational influences, i.e., here immediate here-and-now. This would involve specific coaching and parenting behaviours and reactions in specific situations. However, as previously noted, many measures of motivational climate depart from this in two key areas: Firstly, they measure perceived motivational climate as opposed to specific situational indices, and secondly questionnaires tap the more abstract contextual level; with items asking "on this team/when I play sport, the coach gets mad when/the coach believes…". When playing regularly under the

same coach then this may come to resemble the situational level that Nicholls' theory specifies. However, the additional consideration of parents and peers (and other extra-personal variables) reveals this confusion of analytical levels to be a significant problem. Suddenly, the situations where motivation can be influenced expands from the training pitch and match day (relatively specific situations) to include time at home, pre and post match discussions, time at school and even time travelling to and from events (the more general sport context). The influence of parents in particular is likely to be reduced at the situational level but vastly important in a more general context. Peers, on the other hand, may have significant influences in the specific performance situations and also more generally. Hence, the social and environmental influences on motivation concern an ostensibly larger conceptual span than immediate, situation specific influences. In the light of recent reviews (e.g. Harwood *et al.,* 2008) and a conceptual overhaul of achievement goal theory (e.g. Elliot, 1999), there is a growing argument for moving beyond Nicholls' original conceptualisation of situation-specific influences on goal involvement and seeking to examine what key social agents can do in relation to the sporting context in order to foster stronger motivation, persistence, and mastery-based definitions of competence. The counterargument to including socialisation in a climate model would be that longer term parental and peer influences contribute to an internalised goal-orientation (i.e. intrapersonal adoption tendency), such as fear-of-failure and need-for-achievement, and not situational goal climate (Wentzel, 1999). It is tremendously difficult to separate these without adequate research accompanied by theoretical debate and clarification. The central conclusion from this is that current research needs to bear these important points in mind and attempt to delineate situational, contextual, and more general socialisation influences.

Another possible solution to the difficult issues regarding which level-of-analysis is most

suitable for measures of goal-climate is to take the approach that Elliot (1997, 1999) has introduced with reference to goal-orientation. Instead of conceptualising a goal-orientation as a relatively independent cognitive structure/schema, Elliot proposes multiple intrapersonal antecedents of goal-adoption. This may also be a beneficial approach to take with goal-climates. For example, the behaviours, beliefs and affective styles of coaches, parents and peers may not directly relate to a goal-climate per se but rather, they may be interpersonal antecedents of goal adoption. It is certainly worth entertaining this prospect in the light of recent developments within AGT.

2.8.3 - Approach vs. Avoidance climates

It is important to reiterate that motivational climate research to date has been based upon Ames, Dweck and Nicholls' two-goal conceptualisations. The propensity of a mastery and performance climate to invoke approach or avoidance goals has not been studied. Nevertheless, while certain items on existing scales may correspond to some of Elliott's dimensions (e.g., mastery, performance, approach and avoidance), there is perhaps a need to conceptualise climate in a manner that explicitly corresponds with the 2 x 2 approach-avoidance framework Papaioannou, Milosis, Kosmidou, & Tsigilis, 2007). Research that identifies the precise constituents of 2 x 2 (mastery/performance x approach/avoidance climates), could be expected to further our understanding of human motivation, particularly the construct of avoidance motivation that remains understudied within achievement goal theory (Spray & Keegan, 2005).

2.8.4 - Developmental considerations

Nicholls (1989) research led to the proposition that around eleven years of age children

become capable, for the first time, of being truly 'ego involved'. However, anecdotal reports, even a quick trip to the park on a Sunday, would provide examples of children much younger than eleven exhibiting patterns of behaviours consistent with ego involvement (Fry, 2001; Fry & Duda, 1997). This is a tension that requires research attention to resolve it. If true (Nichollsian) ego-involvement can only be experienced from eleven years of age then do the contents of the social environment matter much during this time; are children oblivious to competitive and pressurising cues below the age of 11? This key transition happens, in the current project, between studies 1 and 2 (Chapters 4 and 5, respectively), and so if Nicholls' is correct, then presumably there should be notable differences in the reports offered by sampling and specialising athletes. Alternatively, it is possible that the same cues and behaviours are noted by pre-eleven and post-eleven athletes, but they may be interpreted differently following this. In either case, identifying the specific motivationally relevant behaviours of key social agents would facilitate the subsequent study of their impact. This is arguably more informative than simply excluding athletes younger than 12, which has been the approach in much of the achievement goals research to date (e.g., Vazou, Ntoumanis & Duda, 2005 – although see Smith *et al.,* 2007 for a study using athletes below 12 years of age).

2.8.5 - Perceived Motivational Climate

As described herein, the vast majority of research in this area has deployed questionnaires such as the *Perceived* Motivational Climate in Sport Questionnaire (-1: Seifriz, Duda & Chi, 1992; and -2: Newton, Duda & Yin, 2000), the LAPOPECQ (Papaioannou, 1994; 1995; 1997), the PECCS (Goudas & Biddle, 1994), and the EPCM (Biddle, Cury, Goudas, Sarrazin, Famose & Durand, 1995). All of these are measures of *perceived* motivational climate, in relation to

dichotomous AGT (Nicholls, 1989). This is generally justified two ways. Justification X: (often unspoken) is the convenience of deploying two questionnaires to the same participant – one tapping their perceptions of the climate, and the other assessing its effects (addressed shortly). Justification Y is that measuring perceived motivational climate is theoretically/empirically better than trying to take an objective measure of the motivational climate. One supporting argument (Y_1) is best voiced by Treasure, Duda, Hall, Roberts, Ames and Maehr (2001), in their 'rebuttal' of Harwood, Hardy and Swain (2000): "Ames (Ames, 1992a; 1992b; Ames & Archer 1988), Maehr (Maehr & Braskamp, 1986; Maehr & Midgley, 1991) and colleagues... ...have *repeatedly shown* that it is the subjective interpretation of the environment, or perceived motivational climate, that we must examine to understand the meaning of achievement endeavours" (p.319 – italics added). In order for this statement to hold any sway, it is necessary to understand what is meant by "repeatedly shown". Has the case been conclusively demonstrated? Have subjective perceptions been shown to conclusively contribute more to our empirical understanding than the measurement (or manipulation) of situational indices?

Y_1 is not supported by the very papers it quotes: a careful reading of the five papers cited reveals that three of them are either theoretical reviews or theoretical book chapters, which discuss but do not *demonstrate* the above claim. Rather, they are the authors' interpretations and conjectures speculating about the potential meaning of their own ongoing work (which is good, but it does not constitute a demonstration). The remaining two are indeed, original research papers, but they do not *demonstrate* the above hypothesis. Instead, it is simply assumed by their methodology (measuring the perceptions of children) but there is no explicit comparison of 'perceived' versus 'actual' climate in terms of their predictive accuracy. What emerges is a point that has been repeatedly assumed (or at best, repeatedly argued) rather than "repeatedly shown".

This should not be taken as evidence that “subjective interpretations” are the only avenue for exploration in studying motivational climate.

A second supporting argument (Y_2) is the finding of Papaioannou (1994) that, despite sharing the same class environment, the variability in perceptions of motivational climate between pupils in the same class was greater than the variability between classes. Hence, the subjective perception of the class environment must be more important than the objective class environment. Whilst initially quite convincing (this will be addressed imminently) it is worth noting that this finding was not the central outcome of the study and has only rarely been replicated. On this foundation, supporting argument Y_3 is established: an array of studies supporting achievement goals by demonstrating that perceptions of a task climate have invariably correlated with adaptive motivational outcomes, whilst perceptions of an ‘ego’ climate have either shown no correlation, or been associated with maladaptive motivational patterns. An example of this argument is as follows: [to question the importance of this research] “contradicts research from 14 studies, with a total sample of 4,484, showing a large effect [using meta-analysis techniques] for a mastery climate on positive psychological outcomes such as satisfaction, positive attitudes, and intrinsic motivation (Ntoumanis & Biddle, 1999). To reduce this effect to "small" would require 85 studies with zero effects!” (Biddle, Duda, Papaioannou & Harwood, 2001; p.466). And since this assertion, many more studies have been conducted adding weight to this case. This is a considerable and impressive body of evidence. However, the task of reducing this “large” effect to small/zero does not necessarily require 85 studies showing no result (which may never be published anyway). All that is required is a brief perusal of the literature on cognitive biases, such as social desirability bias (Crowne & Marlowe, 1960), confirmation bias (Wason, 1960; 1966), the lucid fallacy (Taleb, 2007), and the confabulation of

Gazzaniga's split brain patients (Gazzaniga, 1998) – amongst other effects. All of these effects suggest a tendency for participants to demonstrate an inherent need to appear logically consistent (both to themselves and others). Hence, there is just as much chance that participants filling in these questionnaires unconsciously try to produce a pattern of responses that is internally consistent (and perhaps partially based on a stereotype or belief they hold, or worse still, the experimenter's explanation/expectations). Whichever variable is being measured, the 'code' would not be especially difficult to crack as there are only usually two options - 'competitive emphasis' and/or 'personal/effort emphasis' – followed by a questionnaire assessing something 'nice' (enjoyment, intrinsic motivation, moral behaviour) and/or something 'nasty' (unhappiness, extrinsic motivation, rule-breaking/immoral behaviour). As such, answering the first few questions makes it almost impossible for the participant to appear inconsistent in answering the rest. If a respondent likes competition, their responses will reflect that, and if they loath competition, their responses will reflect that. Even if one is not cautioned by this problem, we can also consider the problem of the 'selective perception' bias, the tendency for personal preferences and expectations to affect perception (Hastorf & Cantril, 1954). In the light of this effect, it should not be surprising that the strongest and most consistent correlations are between achievement goal orientation, and perceptions of motivational climate (as reviewed in Harwood, Spray & Keegan, 2008 and Ntoumanis & Biddle, 1999). It is important to enquire how different the constructs are when measuring 'goal orientation' and 'perceived goal climate'. If two constructs are measured with remarkably similar questionnaire items, are frequently highly correlated, and appear to correlate with highly similar constellations of other variables, how different are they? In measuring 'perceived motivational climate' how close are we *in reality* to measuring 'achievement goal orientation' and making inferences about coach/teacher behaviours

that, in fact, are being "actively perceived" by the participants in a rather selective manner? To what extent was Papaioannou's (1994) result simply a reflection of increased variability in the orientations of the children within each class? These cognitive biases appear to pose serious problems for both Y_2 and Y_3.

Returning to Justification X, which might be labelled the 'convenience' justification for measuring perceived motivational climate, the current paper suggests that this too requires a degree of critical examination. Whilst pragmatic limitations are common in science, and absolutely should not become impediments to progress (Giacobbi, Poczwardowski, & Hager, 2005), scientists must always critically assess the methods they deploy, and never resort to faithfully following the methodological specifications put forward by others (Feyerabend, 1975). As such, the contribution of research using measures of perceived motivational climate, as reviewed in Harwood *et al*. (2008), must be recognised as a significant contribution not least as it has produced quite consistent findings highlighting the importance of situational and contextual influences in determining athlete motivation. However, the reason for examining perceived subjective interpretations must be recognised as a pragmatic limitation, and not a theoretical imperative. If treated as a theoretical imperative and taken to its logical extreme would entail that there is no need to train coach and parents in order to optimise the athletic experience, but rather simply instruct the athlete to interpret all behaviours from these social agents as kind, helpful, positive and mastery-involving. Instead, it is worth considering that the pragmatic limitation posed in studying a complex social and environmental context, which currently forces a retreat into measuring simplified and abstract subjective perceptions, may perhaps be addressed by using a 'bottom-up' approach, and examining the unique, combined and interactive influences of specific behaviours and exchanges in determining athletes' motivation. To reiterate, this

approach would also require an equally comprehensive and complex understanding of intrapersonal motivational indices. Difficult? Yes. Impossible? No.

2.9 – Summary

As a result of this simultaneously dense, disparate, intimidating and yet sometimes uninformative literature (especially regarding pragmatic applied recommendations), a pressing need has been identified for research that a) increases the applicability of the above-discussed theories (thus also increasing their testability), and b) allows scientists to make practical recommendations based on the extensive research and relatively consistent findings discussed here, within the constraints of the various limitations identified. To quote Harwood *et al*. (2008) on the matter, it constitutes "a research area that probably represents the most salient advances that we can make as academics" (p.185). As such, and to reiterate, the central aim of this thesis was to identify the specific behaviours of coaches, parents and peers that athletes perceive to be motivationally relevant. The following section describes the generation of a tailor-made research methodology suitable for such a project, starting with philosophical foundations and building towards specific methods and techniques for the collection and analysis of data. Each main study (Chapters 4, 5, 6 and 7) describe the specific methods deployed separately, as a function of practical (availability) and ethical (child protection) constraints respectively. However, the following section contains important details and justifications of the approach taken by the current project in trying to generate answers to some of the issues identified in this literature review.

3 - Methodology

A qualitative research methodology for the study of social and environmental influences in motivation across the sporting career-span

> *There is no such thing as philosophy-free science; there is only science whose philosophical baggage is taken on board without examination* (Dennett, 1995: p.21)

> *It is, I think, particularly in periods of acknowledged crisis that scientists have turned to philosophical analysis as a device for unlocking the riddles of their field. Scientists have not generally needed or wanted to be philosophers.* (Kuhn, 1962; p.88)

3.1 – Introduction to the chapter

This chapter aims to outline and justify the methodological approach used in this thesis, in the context of its overall research objectives and the scientific moment in which it was conducted. In doing so, two additional tasks arise, those of identifying the philosophical underpinnings of the study – and then demonstrating logical consistency between these and the methodology deployed. A third task involves explaining the apparent similarities between this methodology and 'grounded theory'. In addressing these tasks, this chapter begins with a brief overview, followed by an examination of the methodologies of contemporary motivational research. After this, a brief account of various philosophical positions is given, before the decision to adopt the critical realist approach is explained and justified. The critical realist approach has been criticised for not specifying a particular accompanying methodology. However, this chapter aims to demonstrate how the construction of a methodology for this project led to a methodology that echoes certain aspects of the grounded theory approach, without explicitly aligning itself with any version of the grounded theory methodology.

3.1.1 - Background and overview

Ontology and epistemology are, for many, unfamiliar propositions. Put as simply as

possible, they simply represent the questions: “What is the nature of the phenomena we are studying?” and “How best might we study/understand it?” respectively. Some philosophers and methodologists insist that it is vital to both identify and adopt/declare one’s position prior to engagement with a question/problem (Blaikie, 1993; Grix, 2002), whilst others argue that normal science can ‘tick over’ quite nicely without any such efforts (e.g., Kuhn, 1962; Rorty, 1980). The reason that this project was forced to engage so thoroughly with philosophical underpinnings was the emergence of doubts: doubts regarding the unquestioned, almost paradigmatic, dominance of achievement-goal theory and its conceptualisation of social/environmental influences on athlete motivation; leading to doubts regarding which of several competing theories best applied to such phenomena; and equally doubts regarding the best methodology for studying such a complex and elusive construct as the social and environmental influences on motivation (quantitative versus qualitative, and tensions between qualitative approaches as well). Rightly or wrongly, this doubt was permitted to linger, rather than being dismissed; and when one is able to reflect and contemplate such situations, one inevitably discovers a degree of separation between scientific practices and their philosophical ‘foundations’. As Kuhn (1957; p.138) summarises: “Einstein, wrote only, 'It was as if the ground had been pulled out from under one, with no firm foundation to be seen anywhere, upon which one could have built.'”

In a manner consistent with Godfrey-Smith’s (2003) *naturalistic scientific realism*, decisions regarding the methodology of the current project were not made, or committed to, in advance, but rather many of these decisions were made as a result of critical and reflective engagement with the phenomena being studied, and the literature concerning them. This was in order to seek an understanding of the phenomena under investigation and the most appropriate ways of investigating these (this is one of *many* definitions of naturalism – which seems to have

been adopted by authors due to its implication of 'no artificial ingredients' – Sober, 1988). In fact, ontological and epistemological assumptions were not adopted *a priori* (thus truly qualifying as *assumptions*), but rather they evolved in response to engagement with the subject area.

It is important to acknowledge that some methodological decisions were unavoidably implicit. For example, the project was inescapably influenced by the prominence achieved by Grounded Theory (GT – Glaser & Strauss, 1967; Strauss & Corbin, 1990; 1998) in the years around the turn of the Millennium. Techniques and tools derived from Strauss and Corbin's (1998) book – such as 'constant comparison', 'initial', 'focused' and 'axial' coding, 'theoretical sensitivity' (often confused with theoretical naivety – Charmaz, 2006) were all prominent in the collective consciousness of our discipline at the time, and once it became clear that a qualitative approach would best suit the research area, one was effectively forced to answer the question: *Why wouldn't you just use these?* In answering this question, one aim of this chapter is to demonstrate how a methodology resembling grounded theory was arrived at through a very different logic, and to outline that this situation is fully justified – perhaps even more so than simply adopting GT in advance.

The most appropriate label to summarise the methodology used in this project is a 'critical realist qualitative study'. The underlying assumptions, methods and techniques of GT are quite commensurable with the critical realist approach (Lee, 2002) used in this study – the key differences being that: 1) the approach was not dictated by reference to a single methodological guide/reference, due to the notable "variability in the texts that 'define' GT" – Charmaz (2006; p.8); 2) the decision to position the study, epistemologically, evolved as a function of exposure to the data and phenomena concerned , which Weed (2006, in press) specifies is not tolerable within

his formulation of GT as a "total methodology"(rather than a "pick and mix" box: p.3). Weed's 'Hard GT' is conceived to operate from the very conception of a project through to its completion, thus making *a priori* assumptions about the phenomena being studied and the best ways of studying them, 3)The 'naive induction' associated with (some versions of) GT was replaced by a self-aware, critical and abductive/retroductive process, wherein the developing analysis was 'shielded' from the influence of theoretical assumptions through a (sometimes challenging) process of debate, discussion, *conjecture* and *refutation* (cf. Popper, 1969). As such, this chapter will argue that the model(s) that have emerged from this project are very much grounded in data, without claiming the chimerical status afforded by the grounded theory label.

3.1.2 - The methodology and philosophical assumptions of motivational research

Before the philosophy and methodology of this project are fully reviewed, it may be illuminating to examine the philosophical underpinnings of relevant research into motivation, by conducting a brief tour of the literature on achievement goals (AGT - Nicholls, 1989), self-determination theory (SDT - Deci & Ryan, 1985), social goals (Urdan & Maehr, 1995), and social motivation (Allen, 2003; Ullrich-French & Smith, 2006).

Very few papers and chapters on any of these theories explicitly state their ontological and epistemological positions. This may, at best, be due to stringent space limitations when publishing, but it may also reflect (and perpetuate) the above-mentioned unfamiliarity with these issues. A paper by Pringle (2000) accuses achievement goal researchers of being positivists (objective, independent reality, studied by making unbiased, value-free observations and inducting from these 'pure' facts to create knowledge and laws). He makes these assertions on the grounds that "this theory, in an attempt to generate a *grand narrative* on sport motivation, generalises that *all individuals* are goal directed and desire to demonstrate ability or avoid

revealing inability in achievement situations (Ames, 1992; Duda, 1992)..." and "Furthermore, achievement goal theory assumes that *all individuals* conceive their ability on the basis of their primary reasons or goals for activity participation (Roberts, 1992)" (p.20 – italics added). Pringle is inferring a positivist approach for two reasons: Firstly, the above quotes identify an attempt to generalise a complete theory (or set of laws) that is applicable in all cases and represents the truth (or is taken to be true). Secondly, Pringle criticises a *reductionist* tendency: the simplification of complex systems to (effectively) two variables (p.21): "the reductionist approach in social science has been criticised as its circumscribed focus on select variables is believed to preclude insight into understanding complex behaviour (Fahlberg, Fahlberg & Gates, 1992)". Pringle suggests that this tendency de-contextualises motivational processes and therefore undermines a fuller understanding, i.e., by attempting to create grand theories and laws, individual differences and perspectives are necessarily overlooked. "If one... paradigm continues to dominate our perspective of physical education, there is a danger of repeatedly studying the same issues while being blind to other problems (Sparkes, 1992)" (p.26). In identifying achievement goal theory as a positivist paradigm, Pringle may have had a point – although he also made some slightly misguided claims which led to his criticisms being quite forcibly rebutted in an article by Biddle, Duda, Papaioannou and Harwood (2001).

Perhaps the most important point is that Biddle *et al.* (2001) do not deny that positivism permeates achievement goal research: "We do not share this cynicism regarding positivist approaches to social enquiry and would like to point out that such a research perspective characterises the majority of work on motivation within pedagogy and sport psychology" (p.458). This *majority-rules* argument harks to the 'mob-psychology' approach to science, identified by Kuhn (1962) and heavily criticised by Popper (1981) and Munz (1985). Whilst the

article goes on to suggest that there is room within achievement goal theory for interpretivist research (in fact criticising interpretivist researchers "who have failed to provide further evidence within this domain of interest" – p.459), four issues remain. Firstly, the Biddle *et al.* article seems to argue that the separation of AGT from a philosophical ontology is its strength: along the lines of 'it's not positivist, it's not interpretivist; it just is'. Secondly, and associated to the above, whilst they encourage "methodological eclecticism" (p.459), there is an apparent failure to recognise the influence of institutionalised positivism (Booth, 2001) permeating all AGT methodologies – by far the most dominant research method in AGT is Likert-scaled questionnaires (Duda & Whitehead, 1998). Hence this argument goes: 'AGT doesn't promote positivism, it just doesn't encourage/accommodate any other perspective'. Thirdly, Biddle *et al*. correctly assert that AGT was conceived as a contextually sensitive, social-cognitive theory (Roberts, 1992). They do not, however, address the issue caused by such a heavy reliance on scaled questionnaires (and the treatment of often quite vast datasets which, almost by definition are de-contextualising; averaging out individual differences). Giving an individual a battery of questionnaires about their conceptions of success or ability, what they (very generally) perceive about the way these are represented in the social environment, as well as some other variable (intrinsic motivation, enjoyment, etc.) turns AGT from a *social-cognitive* theory into a *cognitive-cognitive* theory at the methodological level – regardless of its noble intentions (e.g., Nicholls, 1989) – because all the information obtained is from one person-at-a-time, and is isolated from any reference to social interactions or environmental cues. Finally, and most importantly, what remains untouched in all of this is the original conception of AGT, derived from Nicholls (1989). Research on AGT has only tended to *test* (in the loosest sense) Nicholls' theory, and rarely *amend* it or *replace* it (Biddle *et al*. refer to *testing* AGT 4 times, p.458, 459, 464 and 465). This

neglects that there are two main activities in scientific work; theory generation (conjectures) and theory testing (refutation) (Popper, 1969). It should also be noted that research on AGT has rarely ever attempted to refute AGT at all, but at best to expand the theory's applicability; finding more and more instances where AGT triumphs again. This effectively renders AGT un-falsifiable, which is Popper's key indication of pseudo-science, as opposed to science. Even in a more favourable light, this qualifies AGT as a paradigm (Kuhn, 1962), wherein it is not the theory that is tested, but the scientist's ability to reconcile her/his findings with the theory. Theory testing is inherently more compatible with quantitative methods and positivist assumptions, whereas theory generation is inherently more compatible with qualitative methods (although notably theory generation can be compatible with most ontological and epistemological positions). As such, any research that begins with AGT, assumes it is suitable/applicable and then proceeds to test it, is likely to be implicitly drawn towards quantitative methods and positivist assumptions (cf. Medawar, 1969). Notable exceptions are the qualitative endeavours of Pensgaard and Roberts (2002), Krane, Greenleaf and Snow (1997) and Vazou, Ntoumanis and Duda (2005). Pensgaard and Roberts and Vazou *et al*. explicitly accept AGT *a priori*, as guiding the questions and analysis (" the motivational perspective adopted in this study determined the variables and concepts focused upon, and it also guided the interpretation" – Pensgaard & Roberts, p.55) whilst Krane *et al.* claim to avoid this, but their analysis was evidently influenced by AGT. Hence, even in qualitative studies, AGT is not being modified/challenged but rather uncritically adopted and supported; in an explicit attempt to extend the applicability of AGT.

Even if one does not accept the AGT is no longer *tested*, what can be argued with some conviction is that even if AGT is (somehow) ontologically/epistemologically "eclectic", it is

methodologically quantitative and positivist. This is a situation of grave irony, as Nicholls' (1989) book was explicitly written as a reaction against what he perceived as positivist tendencies in the extant literature (e.g., section on Page 4-6). Nicholls explicitly aligns himself with philosophers such as Richard Rorty (1979; 1983) and Thomas Kuhn (1970), both of whom endorsed relativist descriptions of science - for example, by interpreting Galileo's success not as an improvement in the way the real solar system is understood, but as indicating "a given vocabulary works better than another for a given purpose" (Nicholls, 1989; p.5; quoting Rorty, 1983; p.157). This is an argument against the forming of general/universal laws (i.e., applying to all individuals in all achievement contexts), and for contextually specific representation. In support of the above fourth point, the theory generation aspects of AGT took place as part of an interpretivist reaction to perceived positivist tendencies in motivational research (Nicholls, 1989). Almost everything that has followed has, methodologically at least, qualified as theory *testing* and used many aspects compatible with a positivist approach.

In defence of achievement goal researchers, at least four of them have engaged in the debate around ontology/epistemology. The same cannot readily be said for SDT, where a prolonged search for a statement of philosophical underpinnings returns only two, loosely relevant terms: "motivational ontology" - which Elliot and Church (1997; p.228) define as "the fundamental 'why' that is the impetus for effortful action" – and "organismic-dialectical metatheory" (Deci & Ryan, 2000; p.228) – which refers to the 'dialogue' between a person's psychological needs and the extent to which the environment supports these needs. Neither of these terms provides a full account of: a) ontology: the type of 'reality' being invoked; and b) epistemology: the associated ways of studying this 'reality' and what constitutes 'knowledge' as a result. Social goals (Urdan & Maehr, 1995) are derived directly from AGT, and so seem to

share the same philosophical assumptions, whilst social motivation (Allen, 2003; Ullrich-French & Smith, 2006) is still a relatively fresh area of research which, despite deploying mixed methods quite frequently, also has not been explicitly aligned with any ontological/epistemological position. This absence of explicit philosophical underpinnings seems to stem from an apparent tendency, identified by Kuhn's quote at the beginning, for motivational researchers to assume that it is the job of philosophers to worry about whether 'reality is real': legitimising the scientists' endeavours and allowing scientists to go about their work without worrying too much about philosophical issues (see also Medawar, 1969; Popper, 1969; Ratzsch, 1996). The tensions identified above, as well as the act of conducting the current project warn against such an approach. In the light of the above discussions, this methodology chapter attempts to explicitly convey both the project's methodology and the philosophical assumptions that lead to such a methodology.

3.2 Ontology, Epistemology, Methodology and Methods

3.2.1 - Central Concepts

Grix (2002) and Blaikie (1993), writing for undergraduates, suggest that a directional and logical relations among the ontology, epistemology, methodology and methods needs to be understood if scientists are to engage in constructive dialogue. In this directional model, ontology is held to be the primary consideration in any research (Blaikie, 1993) from which epistemological and methodological positions are logically inferred.

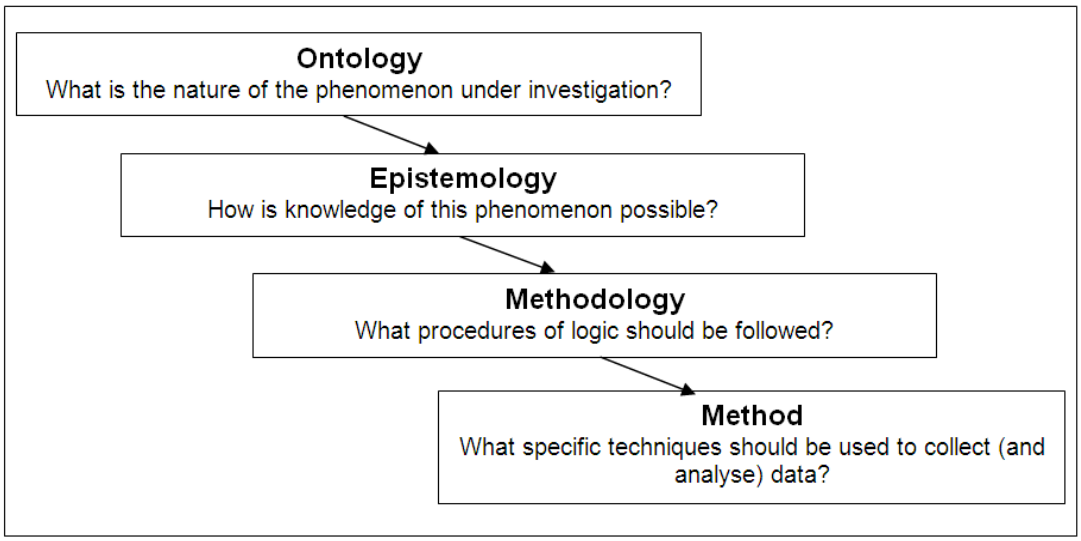


Figure 3.2.1: Directional and logical relationship between ontology, epistemology, methodology and method (Adapted from Grix, 2002, and Blaikie, 1993).

3.2.2 - Ontology

Ontological assumptions are concerned with what we believe constitutes reality. Ontology represents an attempt to answer the question: what is the nature of the reality to be investigated (Grix, 2002)? This explanation of ontology is extended by Blaikie (1993; p.6) who defines ontology as "the claims or assumptions that a particular approach to social enquiry makes about the nature of social reality – claims about what exists, what it looks like, what units make it up and how these units interact with each other". An ontological position is the way a researcher construes the world and, subsequently, the possible objects of knowledge.

Historically, there has been a conflict between two traditions: Bacon and Locke established the influential philosophy of *empiricism*, in which experience is the source of all knowledge, and theories/laws can be logically induced from experience. In contrast, the European philosophers including Descartes, Leibniz and Spinoza, sought to found enquiry on purely *rationalist* first principles (e.g., geometry) from which all knowledge could be logically deduced. Both approaches contain quite serious flaws (with the gift of many years' subsequent discussions by

other great philosophers). However, the British philosophers (Bacon and Locke) managed to proceed quite productively for some time by simply assuming the existence of a material reality independent of human thought, leading to a different question: how is knowledge of this independent world possible (an epistemological question - Russell, 1946)? This precipitated a secondary debate amongst the empiricists regarding whether something that was not independently observable should be studied at all (e.g., psychology, sociology), which then also led to a debate over where to draw the dividing line between that which is worthy-of-study and that which is not. As outlined earlier, much of the research in motivation appears to fall into the same category as Bacon and Locke, tending to ignore ontology by *assuming*, rather than *explaining*, the nature of the mental and social worlds (Bhaskar, 1975; 1979; Joseph, 2002). In fact, as highlighted by Dennett (1995) in the introduction, all researchers make ontological assumptions, though they are rarely rendered explicit. The difficulty occurs because empiricist assumptions appear to hold with regard to natural sciences (physics, biology, chemistry etc.) but the same assumptions cannot simply be carried over into the study of psychological and social phenomena.

Ontological assumptions can be very broadly categorised in two ways: realism and constructivism (or relativism). Realists/empiricists assume the existence of a world separate to human interpretation, uninfluenced by the way humans think about it or changes in the ways humans conceive of it. In contrast, constructivist/relativist assumptions define the world as simply the reflection of human thoughts and ideas about it; i.e., objective knowledge is impossible and scientific theories are human constructions bearing no resemblance to 'the truth' (since truth is relative). In fact, Kuhn (1962), in his infamous 'Chapter X', goes so far as to claim that reality itself changes when our conceptions/theories of it change ('infamous' is a term taken

from Godfrey-Smith's 2003 account).

Variations on realism include naive realism (aka positivism aka empiricism) (Carnap, 1950; Feigl, 1974), critical realism (CR - Bhaskar, 1975; 1979; Sayer, 1985) and critical rationalism (Popper, 1969). For reasons of brevity, CR is the only ontological position discussed at length here, as it is argued to be one of the most defensible approaches, as well as offering the most potential for constructive progress (Green, 2005; Marsh & Smith, 2001).

Table 3.2.2: A Review of Common Philosophical Positions - adapted from Blaikie's summary (1993; p.93-124).

POSITION	ONTOLOGY	EPISTEMOLOGY	MAIN CRITICISM(S)
Positivism (e.g. Carnap, Feigl)	Naive Realist, where the universe is ordered according to general laws; reality is a complex of observed (or experienced) causal relations between events; causes are external to the individual.	Empiricist, where knowledge is derived from direct experience; laws emerge through the observation of empirical regularities (induction); also predictive and experimental.	Pure induction is impossible, e.g., "all swans are white" or "all ravens are black" (Hempel's paradox). There is no such thing as value free observation – all experience is theory laden; laws previously assumed to be 'true' have been falsified (e.g. Einstein's theory superseded Newton's).
Critical Realism (e.g. Bhaskar)	Realist (stratified), where real, actual and empirical domains are recognised; transitive concepts describe intransitive structures; structure and agency are recursively related.	Retroductive, a cyclical process where the researcher builds hypothetical models of mechanisms (necessary conditions) to explain (not predict) phenomena.	Obscure terminology and over-complex rendering of reality; the objectivity of the 'real' not adequately justified i.e. unobserved phenomena are problematic.
Critical Rationalism (e.g. Popper)	Realist, where essential uniformities exist that can be expressed in statements of "truth", defined as correspondence to the facts (see Popper, 1981: p.44-60); truth is always provisional. 3-world (i.e. revised dualist, or pluralist) approach to mind-body problem.	Hypothetico-deductive, where theory precedes observation; a 'horizon of expectations' directs attempted falsifications (informed trial and error); non-falsified theories with greater "verisimilitude" and explanatory power are favoured (but never dogmatically). Increased versimilitude = exposed to increasingly rigorous/demanding and numerous attempts at refutation, which as yet have been unsuccessful	Falsification never actually happens; single experimental results are rarely accepted as genuine falsifying instances (see Duhem-Quine thesis and 'protective' auxiliary hypotheses, explicated further in Lakatos, 1970; p181-188).
Critical Theory (e.g. Habermas)	Constructivist: such that individuals determine the objects of reality; objective observation is impossible; 'truth' is based on consensus, not on evidence (observational or experimental).	3 categories of inquiry: empirical-analytic (nomothetic); historical hermeneutic (ideographic); and critically oriented; each (or combinations) can be used dependent on disciplinary goals.	Distinction between natural and social sciences is unnecessary and misleading; consensus theory of truth leads to infinite regress (also not clearly defined how consensus is to be reached).
Interpretivism (e.g. Weber, Simmel)	Constructivist: such that reality is the sum of the interactions of social actors; a complex of socially constructed meanings that are interpreted (differently) rather than 'real'.	Hermeneutic, where the researcher's goal is to grasp, interpret and reconstruct/re-present the meanings of social life (assumes direct contact).	Impossible to determine progress since no regulative concepts (i.e. truth) are accepted; assumes social actors are competent and rational; ignores structure.

Munz (1985) questioned the idea that an ontological position should be selected in advance: “One cannot, in advance of having knowledge, say what knowledge is and then determine the royal road for getting there” (p. 51). By selecting a particular ontology in advance, the researcher is immediately, inescapably committed to an epistemology – a way of generating knowledge – because the nature of reality has immediate implications for how one can know it. In this logical, directional schema there is unlikely to be any rational reason for choosing *a priori* one particular ontology over another.

In line with Bartley’s (1984) notion of ‘pan-critical rationalism’, Munz (1985) asserts that only through criticising everything, including ontology and epistemological assumptions, can we avoid falling into “dogmatic slumber” (Kant, 1787, p.260). Instead researchers should seek to remain cognisant of how little they really know (e.g., Socrates) and therefore constantly question everything.

3.2.3 - Epistemology

Leaving aside Munz’s (1985) assertions for a moment (not to be forgotten); in principle, once an ontological position has been established the researcher’s epistemology should immediately follow from this. Blaikie (1993; p.6-7) defines epistemology as: “the claims or assumptions made about the ways in which it is possible to gain knowledge of... reality, whatever it is understood to be; claims about how what exists may be known... [It] is a theory of knowledge; it presents a view and a justification for what can be regarded as knowledge – what can be known, and what criteria such knowledge must satisfy in order to be called knowledge rather than beliefs”. One can derive from this the three central questions that an epistemology must answer (adapted from Piggott, 2009): 1) what types of data would qualify as valid with

respect to generating knowledge about this type of reality? 2) what logic should be followed – induction, deduction, or 'other'? – in order to generate valid knowledge about this type of reality? 3) how is the scientific knowledge, generated by this process, different to non-scientific knowledge (the 'problem of demarcation')?

Table 3.2.3: Classical theories regarding the generation of knowledge about the world (adopted from Blaikie, 1993; and Piggott, 2009)

Position	Q1) Valid data	Q2) Logic	Q3) Demarcation
Empiricism (Bacon, Locke)	Sensory experience is the ultimate (only?) source of all concepts and knowledge	Inductive - moving from specific observations to general theory.	Only knowledge derived inductively from experience is considered 'scientific'.
Rationalism (Descartes, Lebniz, Spinoza)	There are significant ways in which concepts/knowledge can be gained *independently* of sensory experience	Deductive - moving from reasoned basic 'truths'/'first principles' to specific statements.	Real knowledge is arrived at through sound deductive logic from fundamental, irrefutable principles.
Critical rationalism (Popper, Munz, Lakatos)	Thought (to generate hypotheses) followed by sound experimental observations. 'Thought' = theorising based on horizon-of-expectations (prior salient experiences) and creative reasoning	Hypothetico-deductive (or 'abductive') i.e. problem – theory – experiment – new problem in light of experimental result.	Only theories that are, in principle, falsifiable or testable are scientific and 'knowledge' consists of, *as yet,* unfalsified theories.

As an epistemology, critical rationalism (Lakatos, 1970; Munz, 1985; Popper, 1959; 1972; 1981) represents a middle road between the two extremes of empiricism and rationalism. Some commentators propose that it is the epistemology underlying most research programmes, implicitly or explicitly (Medawar, 1985), although perhaps more in Europe than America (Hacohen, 2002; p.2) where Kuhn's account of 'normal science' and 'paradigms' seems to have been interpreted as a prescription, rather than a critical observation.

The number of potential epistemological positions available are numerous, but most commentaries denote a *dichotomy* between two approaches: positivist vs. interpretivist (Bryman,

2001; Grix, 2002), foundationalist vs. anti-foundationalist (Marsh & Smith, 2001), essentialist vs. social constructivist (Wilkinson, 1998), rationalist vs. naturalist (Lincoln & Guba, 1982 – offering a different meaning of *naturalism* to that of Godfrey-Smith, 2003, noted earlier), and realist vs. nominalist (Burrell & Morgan, 1979). An additional consideration is the degree to which different epistemologies answer the three central questions (above). For example, whilst positivism/empiricism attempts to answer all three questions, interpretivism's answer to Question One precludes the need to answer the others. Interpretivist/relativist positions offer an appealing alternative to the institutionalised empiricism (Booth, 2001), which is often perceived to be inappropriate for the study of social phenomena. However, they also deny the possibility of objective knowledge (via inter-subjective criticism) by rejecting truth as a regulative concept. This means that any knowledge generated is relative to its parent paradigm and thus incommensurable across paradigms (Lakatos, 1970): an interpretation which paints science as an irrational endeavour (i.e., 'mob psychology') and which has been heavily criticised and effectively refuted (Lakatos, 1970; Munz, 1985; Popper, 1981). The interpretivist/relativist view - that knowledge can only be evaluated with reference to the particular assumptions of a particular 'language community' (Wittgenstein, 1958) or 'paradigm' (Kuhn, 1962) - has been denigrated as fundamentally anti-scientific (Munz, 1985) – or as Popper (1945) summarised: "Such methods... clearly destroy the basis of rational discussion, and they must lead, ultimately, to anti-rationalism and mysticism" (1969; p.216) - even Kuhn's (1962) book contains a tone of wonderment as to how any 'progress' (e.g., useful/enlightening discoveries) can be made at all in such circumstances (also noted in Godfrey-Smith, 2003).

Critical realism: a) maintains truth as a regulative concept (from empiricism) and yet b) rejects empiricist assumptions regarding pure induction, i.e., 'theory-free' observation and the

reduction of complex phenomena to simple laws. However, it also c) accepts the arguments against objectivity (e.g., the 'theory laden-ness' of observation) from the relativists, but d) without taking this to the extreme of claiming that knowledge of a real/objective mental and social world is impossible.

3.2.4 - Methodology and Methods

The decisions regarding ontology and epistemology should lead the researcher to employ a methodology that is logically consistent with these philosophical assumptions (Grix, 2002). Methodology (as distinct from methods) is derived immediately from epistemology because it refers specifically to how researchers ought to acquire knowledge (knowledge of the reality as invoked by the above two key decisions) in relation to the way in which one conceives that knowledge (Blaikie, 1993; p.7). *Methodology* can be defined as: "the analysis of how research should or does proceed. It includes discussions of how theories are *generated and* tested – what kind of logic is used, what criteria they have to satisfy... and how particular theoretical perspectives can be related to particular research problems" (Blaikie, 1993; p.7 – italics added). The term *methods* pertains to the specific techniques/tools of data collection. Methods can be classified according to the degree of researcher involvement during data collection, from high (in-depth interviews, life history, ethnography), through medium (structured/semi-structured interviews, focus groups, covert/overt observation, multi-researcher involvement), to low (scaled questionnaires, closed and open questionnaires). Using such a classification, ontological/epistemological positions appear to co-vary in line with this scale: with relativist positions encouraging high researcher involvement and positivist/empiricist positions encouraging low researcher involvement.

However, as already noted above, Munz (1985) and Godfrey-Smith (2003) argue *not* for a logical sequence from ontology through to method, but for a critical, adaptive and responsive

approach: it is suggested that the process of research itself may critically inform the methods used to seek knowledge. The main caveat to this is that the research question is at least partially determined by the researcher's initial (or 'natural') philosophical assumptions (Annells, 1996). However, given that ontology, epistemology, methodology, and methods come as a package, perhaps it is best to conceptualise them not as a logical sequence (cf. Grix, 2003), but rather as an inter-related system of assumptions/beliefs, none of which are guaranteed to be true, each dependent on the next, all of which need to be constantly and critically questioned (in relation to each other and the phenomena being studied), evaluated and improved where necessary. This embodies the CR approach: everything needs to be critically understood, critically evaluated, and its limitations both understood and declared (i.e., pan-critical rationalism - Bartley, 1984). A second caveat to the 'logical flow' of the above is that pragmatic considerations may also influence methodological choices. Time, ethical considerations, access to participants, the amount and sources of funding, and the research question itself will all influence the choice of method. These pragmatic limitations should not be considered a weakness so long as the implications are understood and identified (Holloway & Todres, 2003).

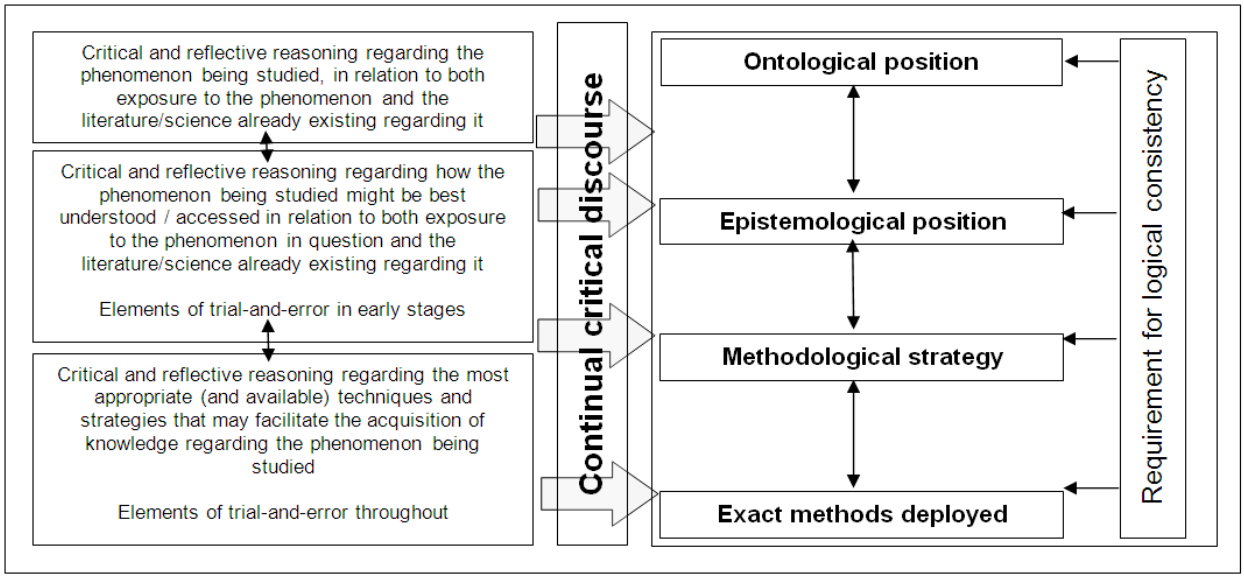


Figure 3.2.2: Representation of the holistic, pan-critical decision process regarding ontology, epistemology, methodology and methods – adapted from Bartley (1984), Godfrey-Smith (2003) and Munz (1985). All positions/assumptions are permanently open to criticism and debate, in relation to both the data and ongoing critical discourse.

3.3 - Defining critical realism

Critical realism (Bhaskar, 1975; 1979; 1989) is an ontological position which represents a middle-road between empiricism and relativism. CR proposes a *stratified ontology*, containing three levels: the real, the actual, and the empirical. Real causes lead to actual consequences which are open to empirical observation. As such, CR accepts there are real objects/structures existing independently of human perception/interpretation; unlike constructivism. However, unlike empirical (or naïve) realists, CR accepts that ideas about such objects can change as a result of critical discourse. The ability to observe something directly may lead researchers to assert that it exists; however, CR also denotes that unobservable forces, or structures, exist because of their observed/actual consequences (Lewis, 2000).

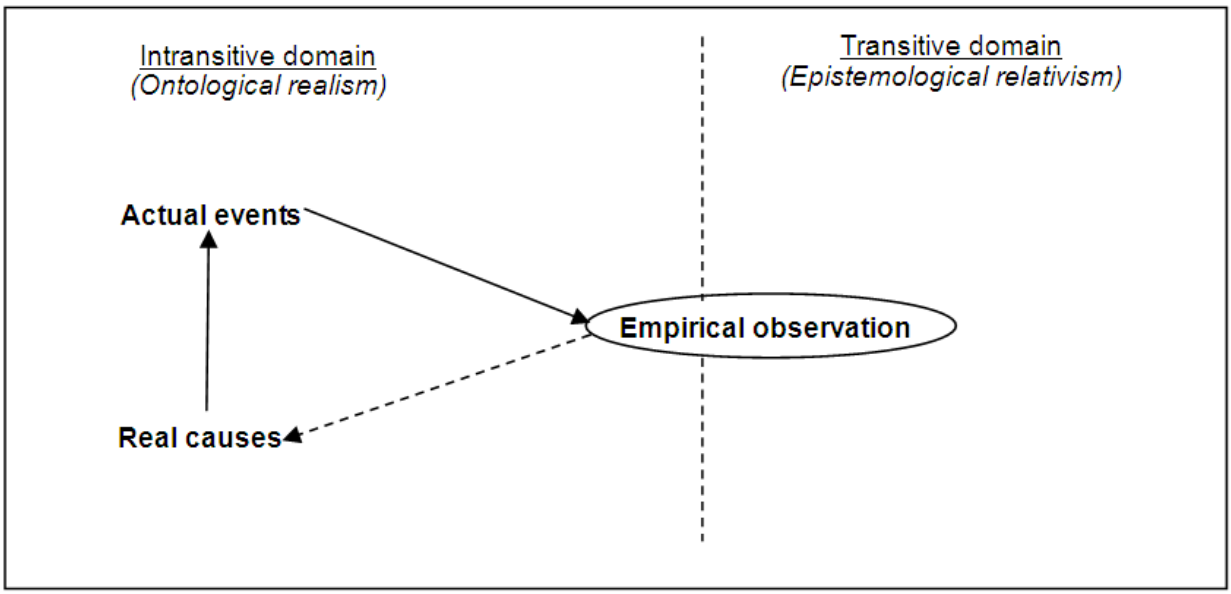


Figure 3.3.1: The stratified ontology of critical realism (adapted from Downward & Mearman, 2007 and Piggott, 2009)

The stratified ontology is further divided into the transitive and intransitive dimensions of knowledge. Bhaskar (1975) proposed that the objects of science – physical, mental and social phenomena – form the intransitive dimension; whereas the scientists' observations and theories form the transitive dimension. This conceptualisation permits that the objects of study, in the intransitive dimension, do not themselves change as a result of changes in scientific theories/understanding (as suggested by relativism). Put simply, the intransitive domain permits assumptions of ontological realism; whereas the transitive dimension leads to epistemological relativism; meaning that theories can be interpreted, modified and refuted/abandoned as scientific work progresses. Hence, CR specifies a world characterised by emergence, in which "situations in which the combination of two or more features gives rise to new phenomena, which have properties irreducible to those of their constituents" (Sayer, 2000; p.12). In this approach, a researcher must seek to understand the particular set of structures that form the

context for the phenomena under study, in order to gain understanding/knowledge of how the system interacts. Hence, a CR researcher will begin by mapping out the prominent structures in their substantive research area before attempting to study the interactions and impacts of those structures. In relation to the current study, this raises the question of how well the social and environmental structures that might influence athlete motivation are understood – to which the answer (according to the literature review) is 'not very well'. This reinforces the need to examine the sources and types of motivational influence exerted by key social agents in sport.

The structure-agency debate refers to the difficulty of establishing causality in any situation or context. *Agency* refers to the capacity of individual humans to act independently and to make free choices, whereas *structure* refers to external factors such as social class, gender/ethnicity, customs, etc. which restrict, control or influence the opportunities that individuals have to exercise their agency. Positivism/empiricism is generally criticised for giving too much emphasis to structure (in the form of laws and principles), and minimising the role of free will, whereas relativism is criticised for giving too much emphasis to agency, and denying the likelihood of there being any commonalities/regularities in human behaviour. Critical realists (e.g., Bhaskar, 1989; Lewis, 2000; 2002) use Aristotle's sculptor metaphor to illustrate how this problem may be conceptualised: Structure is the artist's material and agency is the sculptor. Whilst the material (structure) cannot mould itself without the sculptor's intervention, it exerts significant limitations upon what the sculptor can ultimately fashion. Hence, whilst agents are constrained in their actions by structure, they can manipulate that same structure within constraints. This leads to two types of *causality* under a CR framework: the free-will/decisions of the agent (e.g., the sculptor's choices of tools and cuts), and the structural/historical contexts which frame the agent and his/her actions (the hardness, brittleness, colour etc. of the medium).

CR understands structure and agency to be "recursively related", where "each is both a condition and a consequence of the other" (Lewis, 2000; p.263–265). As such, social structure and human agency presuppose one another; only the combination of the two is sufficient to explain/understand social events (Lewis, 2000) – which this project studies.

3.3.1 - Critical realism and grounded theory

One potential problem for CR is the identified absence of clear and defined methods that specifically suit CR's assumptions (Archer, 1997; Downward & Mearman, 2007; Sayer, 2000; Wuisman, 2005). For example, Wuisman identifies that: "a big gap remains between the philosophical and methodological ideas of this approach and the more practical aspects of doing research" (p.366). Whilst a clear argument is made above for the dissociation of specific methods from ontological/epistemological positions (Batterham, 2002; Feyerabend, 1975), recent revisions of the GT methodology (see below) have brought it closer to representing an appropriate approach for the CR researcher. The importance of first conceptualising and then theorising (or abstraction) in CR research appears to have (justifiably) undermined attempts to formulate explicit procedural/technical prescriptions for a CR methodology (Sayer, 2000; p.19). The invocation of 'real' causes, leading to actual events, mean that CR cannot content itself with mere description, and this rules out the use of descriptive statistical analyses or purely descriptive (narrative/ethnographic) qualitative methods (Mingers, 2004). Instead, CR researchers seek to "get beneath the surface to understand and explain why things are as they are, to hypothesise the structures and mechanisms that shape observable events" (Mingers, 2004; p.99-100). In this conceptualisation, gaining knowledge or understanding requires the employment of whichever research methods are most appropriate – an idea which is shared by

GT.

Lee (2002; p.790) proposed that: “grounded theory is consistent with critical realism”, whilst Downward and Mearman (2007) denoted that, due to apparent compatibility with abductive/retroductive inference methods, CR assumptions could readily be paired with GT to create a promising, and internally consistent, methodology. In particular, Charmaz’s (2000) ‘constructivist revision’ of GT makes notable allusions towards CR. For example, Charmaz specifies that GT should “distinguish between the real and the true”, and that the constructivist revision of GT “remains realist because it addresses human realities and assumes the existence of real worlds” (p.523). In light of his above criticisms, Wuisman (2005) attempted to develop a logic of CR science. In summarising, he wrote:

> A cycle of discovery can only be triggered by the interaction between a theoretically informed, reflective and inquisitive mind and the manifestations that appear in the domain of the empirical. What, in this context, is special about CR is not only that its ontology contains a clear hypothesis about what represents the field of discovery open to the social sciences… but [that it] also points to what to look out for in the first place: underlying mechanisms that operate in a particular context and that might generate events whose appearances manifest themselves in the domain of the empirical. Where critical realism still seems to fall short, however, is in following up the logical implications of its own ontology to their endpoint (p.394)

Hence, (at this time) each CR researcher needs to construct a very clear and logical method in order to support their investigations. The apparent commensurability between CR and GT means that –whilst the current project has not subscribed explicitly to Glaser and Strauss (1967) , Strauss and Corbin (1990; 1998), or Charmaz’s (2000) prescriptions for GT research – the

specific methods deployed in this study appear, to all intents and purposes, to have borrowed from grounded theory. A staunch grounded theorist (of which there are many, see below) may label such an endeavour a poor/weak/ill-advised attempt to use grounded theory. On the contrary, this research has never claimed the GT label and arrived at methods which mirrors aspects of GT via a very different journey, which could hardly be further removed from the *a priori* adoption of GT as prescribed by Weed (in press) on the grounds of it being a "total methodology". Such an uncritical adoption of ontological and epistemological assumptions alongside the GT total methodology (whichever version is chosen) would contravene the pan-critical, self-aware and reflective nature of the current study. These critical and self-aware properties are central to the CR approach and are argued to constitute a genuine strength of the project in terms of both effectiveness (optimising the likelihood of creating appropriate outcomes) and honesty/transparency (limiting the possibility of making any over-stated claims for rigour or truthfulness - Bartley, 1984).

Wuisman (2005) attempted to address the problems that he had identified by bridging from the CR ontology to create a coherent CR epistemology. He did this by focusing on the opposing 'modes of inference' of *induction* (inferring that *a* entails *b* from multiple occurrences of *a* and *b* at the same time), *deduction* (the process of deriving the consequences of what is assumed; e.g., given the truth of the assumptions, a valid deduction guarantees the truth of the conclusion) and *abduction* (inferring *a* as an explanation of *b*; e.g., inference to the best explanation. Abduction allows the precondition *a* to be inferred from the consequence *b*, and abduction is the only mode of inference that can produce incorrect results): combining these processes to form a more cohesive approach to scientific discovery. It should be noted that Wuisman appears to use the term induction in a relatively unique sense, claiming that it is to determine whether the

conjectural/proposed real mechanisms and the deduced regularities and patterns can be obtained/observed.

Like Popper (1972), Wuisman (2005) claimed that science must begin with a creative act (i.e., abduction/retroduction/conjecture); i.e., by leaping from observation(s) to explanatory laws (inference to the best explanation – abduction). This new theory about the underlying mechanism should give rise to falsifiable hypotheses which can then be 'tested' by comparing the predictions made by the new theory with observable phenomena (i.e., attempts at 'refutation'). Figure 4 illustrates this logic in relation to the stratified ontology of CR.

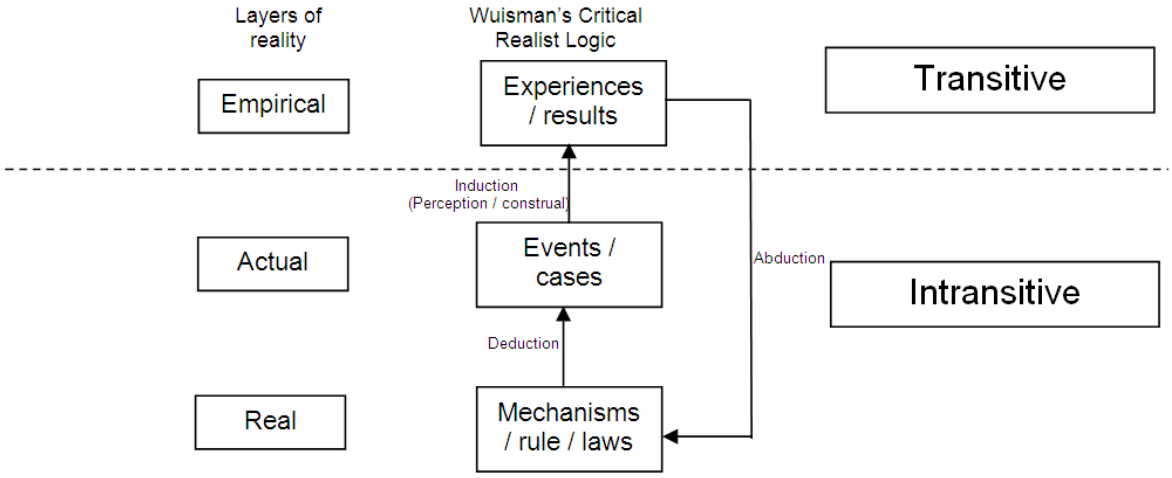


Figure 3.3.2: The logic of critical realist discovery (from Wuisman, 2005)

3.4 - Defining Grounded Theory

3.4.1 – The conception and history of grounded theory

Glaser and Strauss (1967) published 'The Discovery of Grounded Theory': documenting the method they developed during a study on death and dying, and arguably influenced by their backgrounds in 'soft positivism' and 'interpretivism' – experiences and meanings – respectively

(Kelle, 2005). Glaser and Strauss were unhappy with the tendency at the time for sociological research to deploy positivist/empiricist approaches. They were concerned that the ultimate aim of social research seemed to be the verification of existing grand theories (Charmaz, 2000). In *Discovery*, Glaser and Strauss offered researchers tools and techniques to begin developing new substantive theories in unexplored areas. Their formulation did, however, contain oversights and idiosyncrasies; not least the failure to engage with the problem of induction. This quickly became problematic for researchers wishing to use the GT methodology, leading Glaser to update GT by clearly outlining the concept of *theoretical sensitivity*, in an attempt to replace conceptions of 'naive induction' (Glaser, 1978).

Strauss and Corbin (1990, 1998) revised the GT methodology by offering complex and prescriptive guidelines for conducting GT. In response, effectively disowning his former colleague Glaser (1992) heavily criticised this description of GT which he no longer recognised due to its 'forced conceptual description'. The central differences between the two GT traditions concern two inter-related ideas: a) the forms of logical inference: purely inductive (Glaser) versus hypothetico-deductive (Strauss); and b) the extent to which data are interpreted by the researcher: 'emergence' (Glaser) versus 'forcing' (Strauss – cf. Kelle, 2005).

Strauss and Corbin (1994; 1998) reason that their intention was to make GT more accessible to neophyte researchers and that their differences with Glaser were related to GT's popularity, which had led to it becoming inseparably intertwined with wider debates in the field. However, Stern (1994) identified and criticised a situation where researchers entering the area find themselves having to choose between 'Glaserian' and 'Straussian' GT – noting that there are, in fact, advantages and problems to each. Glaser's method is simple, consistent, and much simpler than the highly technical version proposed by Strauss and Corbin. However, Glaser's GT

remains problematic due to its failure to address issues concerning induction, emergence and positivist assumptions (Bryant, 2003). Strauss and Corbin's approach does provide detailed instructions for students to follow, but in doing so their method stifles the creativity and freedom required to achieve induction/emergence, which are core properties of GT. These tools/processes demand that the analyst asks excessive questions of their data at a stage when ideas may not be sufficiently formed to withstand such an inquisition. This arguably puts the researcher at risk of losing touch with the 'open-minded' (emergent/inductive) approach that defines GT.

3.4.2 - The constructivist revision

Charmaz (2000) attempted to revise the GT methodology and reclaim it from (Glaser's) positivist underpinnings; instead positioning GT as a flexible strategy facilitating emergence and constructivism. Charmaz (2000; p.510) emphasised that her constructivist revision "assumes the relativism of multiple social realities, recognises the mutual creation of knowledge by the viewer and the viewed, and aims toward interpretive understanding of subjects' meanings". In short, Charmaz's GT creates a report/narrative which is, in itself, a social construction of the social constructions in the data. Similarly, Layder (1998) proposes 'adaptive theory' as an attempt to narrow what he perceived as a gap between theory and research. Layder (1998) denotes the ontological and epistemological position of his adaptive GT as a philosophy which is "neither positivist nor interpretivist", and that "embraces both objectivism and subjectivism" (p.133) aiming to "transcend the limitations of both" (p.139). Layder assumes (p.141):

"Social reality is composed of both subjective and objective aspects and that they both condition and influence each other since they are deeply interwoven. That is, social activity is conditioned and significantly shaped by systemic phenomena (values, ideology, power, money and the socially organised settings in which they are embedded) while simultaneously activity

itself serves to reproduce, sustain or transform these social systemic features and arrangements."

Without explicitly stating a philosophical position, Layder seems to have implicitly positioned his adaptive GT as a critical realist methodology; denoting that researchers should focus on the subjective experiences of participants whilst also attempting to account for the possible structural (objective) influences. In terms of similarities, both Charmaz (1990; 2000) and Layder (1993; 1998) specify that participants are constantly creating and interacting with their own subjective experiences, and these interpretations are themselves interpreted by the researcher. This constitutes two levels of interpretation: the participants' interpretation of their reality and the researcher's interpretation of that interpretation, i.e., Giddens' (1979) 'double hermeneutic'. In terms of differences, Charmaz argues for a more reflexive approach wherein researchers should acknowledge their position and influence in interpreting the data, whereas Layder places greater emphasis on the role of pre-existing (formal and informal) theory in the research process – although he is unclear on when and how these theories should enter the analysis process. These differences, however, are not mutually exclusive and both may represent clarifications of the old GT. Deployed in a reflexive and self-aware manner, GT can facilitate both improved analysis and transparency; i.e., by creating a more reflexive, open and honest account (Harry, Sturges, & Klingner, 2005).

Table 3.4: Comparison of the different GT traditions in relation to the current project, adapted from Piggott (2009).

	Glaser (1978, 1992)	Strauss (1987) Strauss and Corbin (1990, 1998)	Charmaz (1990, 2000); Layder (1993, 1998)	Current project
Position of the researcher in the research	Theory simply' emerges' from the data. The data speak for themselves meaning the researcher commits no act of interpretation. Prior knowledge/experience can and must be suspended.	Openly acknowledges the role of the researcher as interpreter Arguably takes this to an extreme that undermines the' inductive' logic of grounded theory.	Intrinsically involved at a fundamental level. Research reports are seen as the co-created constructions of the researcher and the participants. To the degree that team research projects are regarded as logical impossibilities.	Researcher is involved at every level, collection, analysis and interpretation. Emerging constructions are checked with participants and co-researchers – who provide a valuable source of critical questioning and concept-refinement
Philosophical position	Realist/positivist (empiricist).	Quasi-constructivist (often specified that it is constructivist, but some aspects are more consistent with interpretivism)	'Constructivism' is explicitly stated	Critical realist / pan-critical rationalist
Inferential logic (inductive or deductive)	Posits pure induction: theory is not to be tested nor should hypotheses be verified against data. However, occasionally inconsistent by inferring the use of deductive principles.	Begin inductively but proceed with a flip-flop between deduction and induction. Hypotheses, 'mini frameworks' and models should be used in theoretical sampling and verified against incoming data.	Some final corroboration with extant theory may strengthen the generated substantive theory. Proposes that GT applies principles of both induction (to begin) and deduction (to continue).	Inductive and deductive processes proceed in parallel, constantly informing each other. Best described as retroductive or hypothetico-deductive
Coding technique	Looks at data holistically by sentence and paragraph and asks: "what is going on here?"	Breaks data down into discrete parts – sometimes word by word – and asks: "what does this word mean here? What would it mean in another context?" etc. Constant comparison taken to an extreme.	Explicitly endorses Glaserian approach. Data are to be inspected 'from a distance', or in the context of one's sensitising concepts and data already analysed.	'Middle road' – breaks data down into semantic units (usually containing an action/cause and consequence). These can be sentences or passages. Each semantic unit should stand alone (i.e., require minimal interpretation) before being admitted to the analysis as a raw theme. Criticism and critical discourse permeate analytic process
Problems / inconsistencies	1. Using key terms such as 'discovering', 'emergence' and 'generating' theory interchangeably – yet their meanings are substantially different 2. Fails to acknowledge the implicit suggestion that the researcher is interpreting data (and that pure emergence/induction is logically impossible). 3. Occasionally permits that deduction is part of GT whilst rejecting it very frequently	1. Also confuses terminology regarding generating or emerging theory. 2. The use of highly prescriptive 'forcing techniques' (e.g. conditional matrix) on data. 3. Undermines/stifles the inductive purpose of GT by asking excessive questions of the data, regardless of what data is collected (i.e., presupposes that their predetermined questions/processes are somehow better than questions/ideas that emerge from the data	Explicitly formulated to try and resolve inconsistencies between Glaser and Strauss – so fewer issues remain. 1. There is, however, still a lack of ontological clarity and confusion remains over the issue of induction/'emergence'.	Never set out to be GT and so perhaps should not be compared as such 1. Clear delineation between induction and deduction is missing – and some analysts might prefer this. See Popper (1969) for a good discussion of why this is a false dichotomy. 2. 'Purely negative' critical process (Munz, 1985) trammels analysis at times and stunts the development of an overall/general theory 3. Generated in response to its own substantive research area and so cannot fall back on the canons of a particular school or methodological tradition.

3.4.3 – The key considerations in the current project

Attempting to bracket off the above philosophical differences within grounded theory, it is possible to recognise commonalities in GT between the different formulations (Strauss & Corbin, 1994). These are described briefly below and then associated with the CR methodology deployed herein.

3.4.3.1 - 'Induction' and 'theoretical sensitivity': The researcher should enter the field without an *a priori* theory/explanatory framework regarding what they might find. Annells (1998), Charmaz (1990) and O'Callaghan (1996) have all questioned whether achieving such a state (e.g., *tabula rasa*) is actually possible. Bryman (2001) neatly summarises that theory-neutral observation no longer accepted as a feasible approach, but rather it is generally agreed that what researchers 'see' is conditioned/affected by many factors. This provides additional support for Charmaz's suggestion of actively seeking to identify and admit/challenge any personal bias. Theoretical sensitivity can be increased by engagement with the literature and associated general ideas (Glaser, 1978), but it need not entail a detailed review of the literature, especially if that is done with a view to developing/identifying specific theoretical frameworks to guide the analysis. Charmaz (1995, 2003) denotes theoretical sensitivity as a source of *sensitising concepts* that act as a *point of departure* to form interview questions, to look at data, to listen to research participants and to think analytically about the data. Point-of-departure is a key concept here, denoting that existing theories/ideas form a starting point, and may in fact play very little role in the construction/discussion of the mature substantive theory.

The current project arguably meets this condition, although in a manner that differs from Glaser's recommendations. Rather than seeking a minimal exposure to key ideas and concepts from the area, the current project conducted a broad-ranging and exhaustive literature review

during the first year of study, extending to a detailed critique of the extant literature and identifying core issues, as well as areas for future research (this was used to compose the third section of Harwood, Spray & Keegan, 2008). As such, the researcher was sensitised not only to basic, fundamental terms and ideas (or 'footholds'), but rather sensitised to the key tensions and conflicts within the extant literature. This contributed to a more self-aware and nuanced analysis of the data, which arguably would not have been possible if the original meaning of 'theoretical sensitivity' (or especially tabula rasa) had been deployed.

3.4.3.2 - Constant comparative method: Data collection, analysis and theorising should proceed in a concurrent and iterative manner. Emerging ideas about the data should continually inform data analysis and theorising (Glaser & Strauss, 1967; O'Callaghan, 1996; Strauss & Corbin, 1994). Not only is there a comparison between data and emerging concepts, but concepts and categories are also constantly compared to each other, as a way of continually checking that the emerging insights are grounded, cogent and embodied in the data (Glaser,1992; Strauss & Corbin,1990). This constant interrelation between data, analysis and theorising is proposed to give GT its 'groundedness'. In this respect, however, the researcher is constantly theorising, 'flitting' between induction and deduction in a manner reflecting the hypothetico-deductive (Popper) or retroductive (Bhaskar) processes linked with CR. Even Glaser (1992), who has tended to insist upon induction (in the form of 'emergence') wrote: "The two types of methodologies should be seen in sequential relation. First we discover the relevancies and write hypotheses about them, then the most relevant may be tested for whatever use may require it" (p.30).

In the current project, constant comparison was facilitated in a number of ways. Primarily, the process of analysis was conducted iteratively, continually drawing critical comparisons

between emerging themes, developing categories, ideas in existing research and theoretical ideas. Whilst these processes were primarily conducted by the lead author, additional processes of consensus validation, peer-debrief and critical, reflective discussions all represent the construct of constant comparison, which was arguably embedded in every stage of the analysis and even the writing-up process. Even the process of 'in-vivo' member checking (summarising and reflecting) in interviews is compatible with the concept of constant comparison (e.g., "Somebody else said the same things but they said it happened a bit differently, what do you think about that?").

3.4.3.3 - Theoretical sampling: This concept has two meanings, a) the process of selecting research participants based on categories (or concepts) that are emerging from the analysis, and b) selecting research participants based on ideas derived through prior theoretical sensitivity. Glaser and Strauss (1967; p.45) refer to this as a "process of data collection that is controlled by the emerging theory". The exact nature of theoretical sampling may change during the project, hence (for example), it may begin with the process of selecting cases based on extant research/theory and then, as concepts are forming/emerging in the analysis, sampling might become more focussed. Unlike most approaches to sampling, "the aim of theoretical sampling is to refine ideas, not to increase the size of the original sample" (Charmaz, 2000: p. 519): clarification rather than generalisation.

In the present studies, the pragmatic limitations of accessing young children and adolescents (in Studies 1 and 2 respectively) limited the opportunities to use the first type of theoretical sampling, although the selection of participants in relation to theoretical sensitivity was deployed extensively. Using pertinent models of athletic career development/progression (e.g., Côté, Baker & Abernethy, 2003; Wylleman, Alfermann & Lavallee, 2004), groups of participants

could be recruited representing three distinct career stages: initiation/sampling, specialisation, and investment/mastery. The initiation stage is characterised by participants who are generally prompted to try a number of different sports to see if they either enjoy them, have some talent, or perhaps both. Following this, athletes tend to focus on one or two sports in which they specialise, learning the key skills, tactics and rules. This *specialising* phase tends to occur from around the age of 11-12. Athletes at this stage have three possible outcomes: they can seek to invest and develop into elite performers, compete at a recreational level, or retire from the sport. The next developmental stage is termed *investment / mastery* (Côté *et al.,* 2003; Wylleman *et al.,* 2004) and can begin from approximately 15 years of age, depending on the sport. This stage can either be considered to continue until retirement (Côté *et al.*, 2003), or it can take the performer to a state of maintenance (Wylleman *et al.,* 2004). The investment/mastery stage is defined by a heavy and exclusive focus on deliberate practice, specialist coaching in a single sport, and markedly decreased parental involvement (Côté *et al.*, 2003). Further details of each stage are provided in the subsequent chapters; studies 1, 2 and 3 respectively. Within each career stage, "maximum variability sampling" (Miles & Huberman, 1994; p.28) was deployed to ensure maximum heterogeneity (of opinions, experiences and meanings) within each study's chosen sample and thus maximise opportunities for similarities and differences between emerging ideas/concepts (Miles & Huberman, 1994). This entailed sampling from a wide range within each career-stage, rather than ruling out participants who were arguably borderline for each category. For example, the specialising stage included 9-and-10-year old footballers at a Premiership academy, in the same sample as 18-year old county hockey players, as well as many athletes who were simply competing frequently at a single sport (and sometimes less frequently in others) This sampling method generated a great mix of participants; the opportunity to identify common themes of interest, the possibility of different perspectives or experiences regarding

these themes; a variety of sports, ability levels, coaching styles etc.; and this variability also acted a reminder to the researcher to remain open minded and resist 'jumping to conclusions' (Marshall & Rossman, 1999; Patton, 1990). One caveat to this use of theoretical sampling was that Nicholls' work (Nicholls & Miller, 1984) suggests children under the age of 11-12 should not be able to hold fully differentiated conceptions of the nature of ability (effort and/or ability). This might have precluded the recruitment of participants under this age (cf. Vazou *et al.,* 2005). However, regardless of whether participants conform to the tenets of achievement goal theory, the social and environmental contexts surrounding young athletes are still likely to affect their motivation. Hence, without making any assumptions about the way motivation is regulated in younger athletes, it is still possible to explore which behaviours, actions and values these athletes perceive to be motivationally relevant.

As a result of the above pragmatic limitations (child protection, access to participants), only the study with elite athletes (over 18years of age) may fully deploy the first interpretation of theoretical sampling; specifically recruiting participants as a result of the ongoing analysis. In studies 1 and 2, participants were largely selected by their schools (usually PE teachers) for the study (using either 'gifted and talented' registers or sometimes their own appraisals), and the process of gaining parental consent and taking time out of classes necessitated this. On occasion, 2-3 focus groups were scheduled in consecutive time slots. There was, however, still margin for some theoretical sampling, as the interviewer made copious notes during focus groups, as well as amending the interview guide between each interview. Hence there was still some 'adaptability' in the data collection process (Layder, 1993; 1998); there was still some dialogue between data collection and interpretation. In these two studies, however, the process of constant comparison (individual researcher, consensus validation, peer debrief, member checking etc.) played an

amplified role in refining ideas and seeking ‘saturation’.

3.4.3.4 - Theoretical saturation: As grounded theory is an iterative process, some indication is needed as to when further iterations are no longer necessary, and this is proposed to be provided by the point of theoretical saturation. Charmaz (2006) defines saturation as the point at which gathering fresh data no longer sparks new theoretical insights, nor extends the properties of theoretical concepts. As such, theoretical saturation ensures that ‘‘the generated grounded theory [has] conceptual density [and] theoretical completeness’’ (Glaser, 2001: p. 191). Strauss and Corbin explain that (1998, p.136).

> “A category is considered saturated when no new information seems to emerge during coding, that is when no new properties, dimensions, conditions, actions/interactions or consequences are seen in the data. *However, this statement is a matter of degree... ...Saturation is more a matter of reaching the point in the research where collecting additional research seems counterproductive”* (italics added).

Strauss and Corbin continue to explain that practical limitations (e.g., time, funding) may also begin to define the point at which saturation is reached. Saturation is not an indication of rigour, reliability or trustworthiness (although it can easily be misconstrued as such), but rather, it is designed to act as an ‘end point’; a signal to stop the iterative cycle of data collection, analysis and theorising. It is inherently difficult to define and so it becomes a subjective decision. In the current studies it was defined, by and large, as being the point at which no new themes, insights or lines-of-enquiry were emerging from the analysis, which coincided with the point at which the disparate concepts and themes started to fall together in a way that made sense and resonated with the data (as well as the experiences of collecting the data).

3.4.3.5- Indices of research quality: Terms such as validity, reliability, trustworthiness, and credibility are frequently used in the methodology literature to represent the quality of the research product. Validity and reliability are argued to be inappropriate measures of quality for GT research on the grounds that they seem to have been imported into (imposed on?) methodologies that do not share the same positivist/empiricist assumptions which produced them (Smith & Sparkes, 2009). Rather, Sparkes' (2002) concepts of: fit, work and modifiability are applicable (Glaser & Strauss, 1967). *Fit* relates to how closely the concepts and emerging substantive theory fit the phenomena they represent. Common techniques to ensure 'fit' in qualitative research include member checking, face validity, consensus validation, inter-rater checking, etc. The researcher may also demonstrate the transparency, authenticity and conceptual clarity/coherence by making explicit links between their own interpretive account and extant research/general theory. For example: Strauss and Corbin (1990; p.52) denote: "The literature can be used as secondary sources of data... ...publications may include descriptive materials concerning events, actions, settings, and actors' perspectives that can be used as data in order to inform and/or reinforce the analysis". Taken together, the above processes can be loosely analogised to forms of internal (internal member checking, consensus validation, inter-rater checking) and external (external member checking, peer debrief, commensurability with literature) 'validity'.

A theory *works* (provisionally) if it is able to offer analytical explanations for problems and processes in the phenomena under investigation. Finally, a theory should be *modifiable*, in that it should be open to extension or further development in response to further studies. In Popperian terms, all theories are merely conjectures, awaiting refutation. Lakatos' (1970) contribution to this issue (in line with Duhem and Quine) was to illustrate the manner in which theories change

and adapt to incorporate disharmonious findings. In both cases, theories must be considered *modifiable* (in stark contrast to the manner in which Nicholls' (1984; 1989) achievement goal theory is preserved and maintained in its original state).

Regarding fit, all the above-mentioned processes of member checking (both internal and external), inter-rater checking, consensus validation, peer debrief and critical reflection were employed to ensure that, as much as possible, the outcomes of the studies (and overall project) fit with the substantive phenomena in question. Regarding *working*, the specified outcomes (taxonomies and models described in Studies 1, 2, 3 and especially Study 4) are hypothesised to be commensurable with the observed phenomena. It is characteristically complex and interactive, but somewhere in amongst that apparent chaos is the possibility of consistencies and predictability. Regarding modifiability, the author goes to great lengths in Chapter 7 (discussion/meta-interpretation) to explain that the proposed models are purely speculative, and will require extensive testing and tailoring. In their favour, the proposed models are, by their very nature, inherently modifiable, either by being populated with additional information (interactions, mediating and moderating variables, perhaps new themes?) or by being organised and delineated further (differences between career stages, differences between social agents). The emergent model(s) actively invite this modification, whilst representing the best ('most saturated') attempt at this juncture.

3.5 - Summary and conclusion

This chapter aimed to outline and justify the methodological approach used in the current project. In doing so, two additional tasks became pertinent, those of identifying the philosophical underpinnings of the study (and demonstrating logical consistency between these and the

methodology deployed), and also explaining the apparent similarities between this methodology and 'grounded theory'.

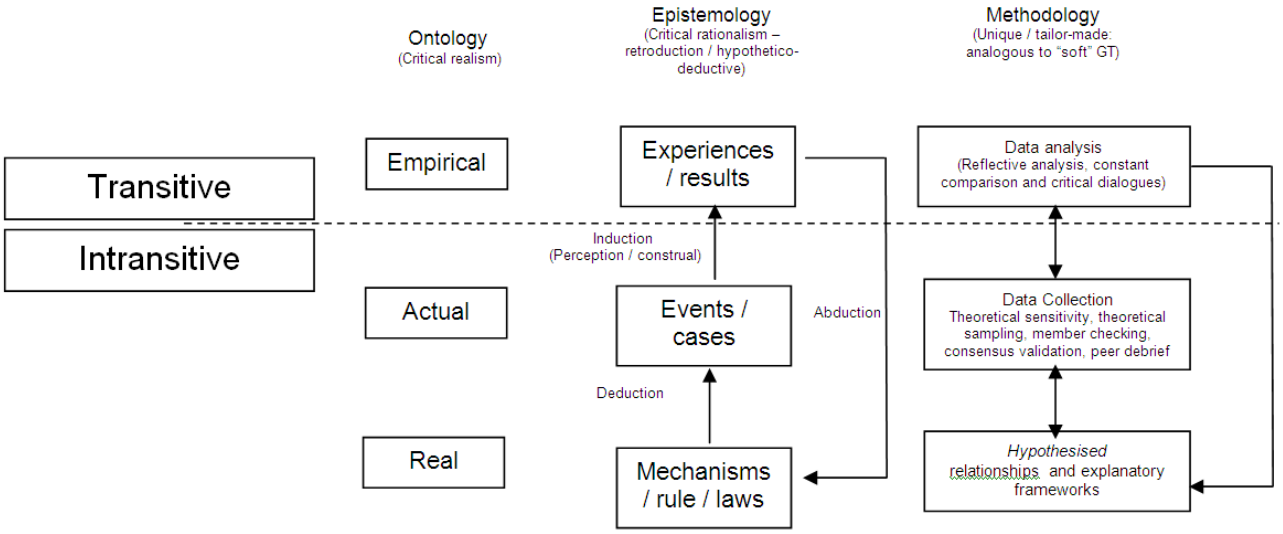


Figure 3.5: An extended adaptation of Wuisman's (2005) model, illustrating the associations between ontology, epistemology and methodology in the current research project.

The methodology of this project was derived from a critical realist ontological position and, as such, the approach that evolved bears striking similarities to the GT approach. However, the GT methodology was not adopted from the outset (as specified by Weed, in press) and neither is the GT label claimed. Instead, this chapter has sought to answer the question: "Can research be grounded without adopting grounded theory?" The answer would appear to have two forms: Firstly, it depends which version of GT is being invoked. But secondly, *yes*, a theory can be built from the ground up, but occasionally it will require scaffolding (i.e., preconceptions and even pre-existing theory), rebuilds/modifications (i.e., responses to any effective criticisms), an artist/architect (i.e., a creative mind to make conceptual leaps beyond what is 'merely there'), and safety inspectors (i.e., critical minds willing and able to detect any and all weaknesses or inconsistencies. Ironically, the more the better). The absence of any of these components makes

the whole task either more difficult, less effective, or both. The presentation of this project's methodology as a 'complete package' - ranging from ontological assumptions to specific methods of data collection and analysis - is argued to be a stronger and more defensible approach than simply adopting a pre-existing methodology. In the critical realist approach, philosophical and methodological decisions *as well as* any emergent theories are all open to ongoing criticism and development (evolution). In terms of ensuring reflexivity, restraint, self-awareness and even effectiveness, research needs to be built from philosophical foundations, especially during times of uncertainty or crisis.

4 - Study 1

A qualitative investigation exploring the socio-environmental determinants of motivation in early-career sports participants: Coach, parent and peer influences[1]

4.1 – Introduction to the study

Children's early involvement in organised sport is often considered to be a key opportunity for the development of movement skills, social skills, self esteem, and the maintenance of health through physical activity (Stryer, Tofler & Lapchick, 1998; Zaff, Moore, Papillo & Williams, 2003). Consequently, children's motivation to participate in sport is a key consideration for researchers, coaches, parents and teachers alike. Fundamentally, if we want children to engage in sport from an early age and progress to reach their full potential, then it is arguably vital to 'get the environment right' during these influential formative years. In fact, there are many important reasons to study the experiences of early-career athletes. First, motor abilities (such as co-ordination, reaction time and balance) are most receptive to development at younger ages (e.g., Loko, Aule, Sikkut, Ereline, & Viru, 2000). Second, participation in sport is likely to be an important opportunity for the improvement of these basic motor skills. Third, being able to create and maintain an optimal motivational environment amongst early-career athletes is likely to increase participation, enjoyment, and motor learning (cf. Theeboom, De Knop, & Weiss, 1995). These considerations highlight the importance of being able to understand and influence the environment surrounding early-career athletes in order to produce optimal motivation and associated benefits.

There is increasing evidence that peers and parents in the sporting context, as well as coaches, all play important roles in influencing motivation (e.g., Allen, 2006; Allen & Hodge, 2006; Gurland & Grolnick, 2005; Ullrich-French & Smith, 2006; Vazou, Ntoumanis, &

[1] This study has been accepted for publication in Psychology of Sport and Exercise (see Appendix K_i)

Duda, 2005; White, 1996). As a result of the preceding considerations, this study examines the motivational influences of coaches, parents and peers in the early career of sport participants.

Several models of athletic career progression exist, beginning with Bloom (1985), and including Côté (1999) and Wylleman, Alfermann, and Lavallee (2004). In each case, the early career is characterised by participants who are generally prompted to try different sports (often by their parents) to see if they either enjoy it, have some talent, or ideally both. The emphasis is more on 'play' and games than deliberate practice and children in the 'initiation/sampling' stage are generally 6-13 years of age (Côté, 1999). Also, according to Wylleman *et al.* (2004), sport-career 'initiators' are almost invariably at primary school, and their key social influences come from parents, peers and siblings (where applicable).

Roberts (2001) argued that motivation is best understood from a social cognitive perspective, not as a function of energisation or arousal per se, but rather as a function of the goals behind the motivated activity. Likewise, Deci and Ryan (2000) succinctly summarised that motivation concerns the 'why' question of behaviour. Hence, when studying the social influences on motivation of young athletes participating in sport, one is examining the reasons behind motivated actions and the ways in which coaches, parents and peers can influence these reasons. These three social agents, taken together, may be influential across the vast majority of the athlete's sporting experience. Taking, as a guide, Vallerand's hierarchical model of intrinsic and extrinsic motivation (Vallerand, 1997), parents will be a relatively global and omnipresent influence, whereas coaches and peers are likely to exert motivational influences both at the contextual (generally within sport, but not at school or at home), and also at the situational levels (specific instances at a particular moment in time). A study that is able to describe and convey a sample of these motivational influences would arguably be relevant to both Vallerand's theory, and any of the following theories of motivation in sport.

4.1.1 - Achievement goal theory and motivational climate

The motivational influence exerted by key social agents is often referred to as the 'motivational climate' – which is a term that originated in achievement goal theory (AGT - Ames, 1992; Nicholls, 1989). In this conceptualisation, sport participants' *state* goals are determined by the interaction of their 'goal orientation' (a tendency or proneness in individuals towards adopting certain achievement goals; Roberts, 2001), with the situational goal climate (the specific pragmatic and social situations in which the achievement task is defined; Ames, 1992). The traditional dichotomous AGT framework defines these goals in one of two ways: performance/ego goals emphasise normative evaluations and outperforming others; mastery/task goals emphasise effort, personal improvement and task mastery (Nicholls, 1989). Numerous studies have been conducted within motivational climate research, and reviews of this literature (Ntoumanis & Biddle, 1999 and Harwood *et al.* , 2008), suggest the different definitions of competence (mastery vs. performance), and related goal involvements/adoptions, have been correlated to different motivational outcomes and behaviours, including positive affect, negative affect, perceived competence, strategies used (e.g., cheating, self-teaching), sportspersonship, the deployment of mental skills, actual motor improvement, and experience of 'flow' (Duda & Whitehead, 1998; Harwood, Spray, & Keegan, 2008).

Nicholls' contribution to AGT emerged from a systematic programme of research that examined how young children gradually learn to differentiate between effort, task difficulty and luck in achievement tasks. According to Nicholls (1989), children below the age of 11-12 are not able to differentiate between ability and effort, and so cannot become ego-involved (i.e., they cannot be interested in demonstrating superior *ability* with less or equal effort). As such, all children are proposed to only experience task involvement until they come to realise that ability and effort can be inversely related (or at least unrelated). This has been the

assumption in the majority of research into motivational climates (e.g., Vazou *et al.,* 2005), which has been dominated by AGT, and so early career sport participants under the age of 12, (i.e. those who are characteristically initiating their sporting careers), have rarely been studied. This decision has rarely been clearly justified as, even if differences should be expected, athletes below 11-12 presumably still experience motivationally relevant cues and interactions with key social protagonists, the perception of which might constitute a 'perceived motivational climate', albeit one that may not reflect AGT's dichotomous conceptualisation.

Ames' research led to a consideration of the ways in which teachers and coaches can emphasise achievement goals (Ames, 1992; Ames & Archer, 1988). The acronym TARGET was coined to denote the variety of relevant teaching behaviours: Tasks, Authority, Recognition, Groupings, Evaluation and Timing. A task-climate would include collaborative tasks, democratic leadership, recognition for effort and improvement, mixed ability groupings, individual evaluation, and sufficient time for everyone to learn a skill. An ego-climate would include competitive tasks, autocratic leadership, recognition of normative ability, segregation by ability, normative evaluation, and time for only the more advanced students to complete a task. In most coaching environments, however, the above behaviours are likely to occur interchangeably depending on the circumstances, and so it is unlikely that an exclusively ego or task climate will be created/experienced/perceived.

The TARGET framework was initially used to inform interventions and assess motivational outcomes (e.g., Seifriz, Duda, & Chi, 1992), but it has also contributed to the development of several questionnaires measuring how athletes perceive their motivational climate (e.g., Ames & Archer, 1988; Newton, Duda, & Yin, 2000; Papaioannou, 1994; Seifriz *et al.,* 1992). Results from studies utilising these questionnaires have shown that perceived climate is often associated with important motivational variables. However, Duda and Whitehead (1998) highlighted a number of limitations of the questionnaire approach to

studying perceived motivational climate, not least that researchers tended to only present the results of composite mastery or performance scores and not the underpinning subscales; precluding options to explore any differences between subscales (and therefore limiting understanding). Additionally, the subtleties of measuring the perceptions of how a group of athletes feel their coaches, parents and peers emphasise one-or-another definition of competence, and then trying to use this for applied interventions are slowly beginning to undermine the utility of a questionnaire-based approach (Papaioannou, Milosis, Kosmidou, & Tsigilis, 2007). As a consequence, it may be beneficial to examine social and environmental influences on motivation by qualitatively assessing influences of coaches, parents and peers together, with a view to arriving at specific applied recommendations that can inform interventions.

Returning to the consideration of Nicholls' work (Nicholls, 1989), if it is the case that children become able to differentiate between effort and ability at around the age of 12, and therefore able to truly experience ego involvement, there may be a strong argument in favour of making the motivational climate around this age strongly mastery-oriented, such that the salience of ego goals and their associated negative motivational impact might be reduced (Harwood *et al.,* 2008). Smith, Cumming and Smoll (2008) recently developed a questionnaire to assess perceived achievement goal climates with athletes between 9-14 years of age (the Motivational Climate Scale for Youth Sports; MCSYS). However, this study explicitly used the dichotomous framework ('mastery' vs. 'ego' goals) to develop a two-factor model; effectively creating a PMCSQ-2 for use with young performers. This differentiates it from the current study, which uses a qualitative approach in an attempt to access the potentially unique and rich phenomenon of the motivational environment in youth sport. In this respect, the current study is intended to complement existing research by providing a detailed account of the behaviours and actions that contribute to motivation in young athletes.

4.1.2 - Theoretical developments: Approach and avoidance goals

In its original conceptualisation, AGT did not specifically differentiate social and self-awareness considerations from purely competence-based goals – meaning their influence could not be separately assessed (Elliot & Thrash, 2001). Elliot and colleagues (e.g., Elliot, 2005) have argued that the achievement goal construct should focus solely on whether the aim is to demonstrate competence (approach valenced goal) or to avoid demonstrating incompetence (avoidance valenced goal) – being careful to theoretically and empirically separate goals from the reasons underpinning their pursuit. Elliot (1997, 1999) asserted that equivocal findings in the AGT literature concerning the motivational impact of performance goals were partly a result of the failure to distinguish both approach and avoidance forms of normatively-defined goals (and partly a result of the inclusion of social and self-awareness considerations within the measurement of goals). Elliot (1997; Elliot & Church, 1997) proposed a trichotomous model (mastery goals, performance-avoidance goals, and performance-approach goals) and, more recently, a two-by-two model in which mastery goals are further divided into mastery-approach and mastery-avoidance, giving two dimensions (valence and definition) and four possible goals (performance-approach, performance-avoidance, mastery-approach, mastery-avoidance; Elliot & McGregor, 2001). In Elliot and Church's (1997) hierarchical model of achievement goals, intrapersonal and situational antecedents are hypothesised to influence the adoption of any of the four goals. Although one of the antecedents posited is 'motivational climate', there is currently a dearth of research that examines how key social agents can influence the adoption of approach versus avoidance goals in sport. In physical education, Barkousis *et al.* (2007) used the LAPOPECQ (a dichotomous measure of perceived motivational climate; Papaioannou, 1994) to predict trichotomous goal-adoptions and found that the subscale 'worry about mistakes' (a performance-climate subscale) was a positive predictor of both mastery- and performance-avoidance goals. This research suggests that students in these classes were able to

differentiate between positive and negative situational/contextual cues, and also indicates a growing need to reconcile separate models of achievement motivation within motivational climate research, particularly in sport.

4.1.3 – Theoretical developments: Social goals in achievement contexts

Maehr and Nicholls (1980) included in their original theoretical framework of achievement goals a 'social approval goal orientation' in addition to task and ego goal orientations. They suggested that a social approval goal orientation emphasises the desire for acceptance by significant others through conformity to norms while displaying maximal effort. More recently, Urdan and Maehr (1995) called for the reconsideration of social goal orientations in describing and explaining achievement behaviour. Social goals may include social welfare goals (i.e., to benefit the larger society by becoming a productive member), social responsibility (i.e., to be conscientious), social affiliation (i.e., to feel a sense of belonging), social relationship goals, and social status goals (Urdan & Maehr, 1995; Wentzel, 1993). Allen (2006) has reported that friendships and group memberships are key motivating factors in sport, whilst Ullrich-French and Smith (2006) noted that the quality of friendship and peer acceptance also influenced motivational variables such as enjoyment and perceived competence.

Given the variety of qualitatively different relationships that are possible between an athlete and their coach, parents and peers, there is likely to be a corresponding variety of possible social goals. For example, peer relationships are relationships between relative equals, while athlete-adult relationships may often represent imbalances in power, and this is likely to impact upon the social goals adopted by the athlete in each instance, as well as the ways in which motivational goals are endorsed, perceived, adopted and reinforced. Significant others in sport represent consistent sources of motivation (Weiss & Ferrer-Caja, 2002) and, whilst research is ongoing into the specific nature and impact of social relationships in sport, it is clear that social goals are very relevant to the examination of

social and environmental influence on motivation.

4.1.4 - Theoretical developments: A broader motivational climate?

To date, socio-environmental influences on athlete motivation have been studied with regard to the dichotomous AGT conceptualisation of motivational climate, with a mastery climate hypothesised to induce task goals, and a performance climate to induce ego goals. The majority of this research has assessed the perceived influence of coaches, teachers and parents on athletes' motivation in sport (e.g., White, 1996; Williams, 1998), although more recent work has examined the influence of peers (Ntoumanis & Vazou, 2006; Vazou *et al.,* 2005). While this body of work has led to some debate concerning the conceptualisation of achievement goals and the mechanisms by which they are invoked or adopted, motivational climate has continued to be studied using the performance/ego versus mastery/task dichotomy. Exceptions to this general tendency are Mageau and Vallerand (2003), who presented a model of coaching that highlighted the importance of autonomy support in improving athletic motivation, and Allen and Hodge (2006), who reviewed an array of evidence suggesting that our conceptualisation of motivational climate should be expanded to include the self-determination theory (SDT; Deci & Ryan, 2000) constructs of relatedness ("a concern about connections with others and the quality of our interpersonal relationships." p. 268) and autonomy (the degree to which athletes "engage in the activity for their own valued reasons and feel that they have freely chosen to be involved" p. 267), in addition to competence. Mageau and Vallerand cite research specifying that autonomy supportive behaviours may include offering choices, providing a rationale for decisions/tasks, acknowledging the athlete's feelings, allowing independent training, giving non-controlling competence feedback, and avoiding controlling behaviours such as tangible rewards. Whilst they are less clear in specifying relatedness-supportive behaviours, examples include forming a supportive, warm relationship with athletes and encouraging the formation of friendships

within teams. Deci, Vallerand, Pelletier and Ryan (1991) summarised their position, that: "motivation, performance, and development will be maximised within social contexts that provide people the opportunity to satisfy their basic psychological needs for competence, relatedness, and autonomy" (p. 327-328). To the extent that social contexts do not allow satisfaction of the three basic psychological needs, they will diminish motivation, impair the natural developmental process, and lead to alienation and poorer performance. It should be noted that SDT is not mutually exclusive from AGT. Indeed, Ntoumanis (2001) used regression analysis to link task-orientations to more self-determined forms of motivation, whilst ego-orientations were linked with low self-determined forms of motivation. This is consistent with both theoretical underpinning and research findings, because the controlling features of an ego goal are proposed to undermine autonomy, foster an external locus of causality, and undermine attempts at collaboration; whereas task goals facilitate autonomy, collaboration, and perceptions of competence (Brunel, 1999).

A problem that remains is that there is no comprehensive evidence pertaining to the variety of behaviours of key social agents that impact upon the perception of whether psychological needs are satisfied or thwarted. Various papers and reviews (e.g., Deci, *et al.* , 1991) offer insights but a), there are many conceptually similar variables proposed with no easy way of distinguishing between them, and b), the level of specificity required for designing and delivering effective interventions is often lacking.

In summary, the justification for the current study is based around: a) the identified lack of research studying the social and environmental influences on motivation perceived by *young athletes,* defined both in terms of age (<12 years old) and career progress (<3 years), b) recent theoretical developments such as the introduction of approach-avoidance goals and the proposed inclusion of SDT constructs within motivational climate research, and c) the implications of these developments for current tools used in the measurement of (perceived) motivational climate. Consequently, the current research set out to identify the specific

motivationally-relevant behaviours of coaches, parents and peers that are perceived to influence the motivation of athletes at the beginning of their sporting careers.

4.2 - Method

4.2.1 - Participants

The study obtained ethical clearance from the ethics committee of Loughborough University (Appendix A). Eight focus groups were conducted containing 40 sport participants (19 females and 21 males), recruited from 17 sports, with an age range of 7 years 6 months up to 11 years 4 months (Mean = 9 years 7 months, SD = 1 year 2 months). The participants were recruited from local schools by writing to the head-teacher (Appendix B), explaining the study, and requesting to interview school pupils who played sport in their spare time, outside of school PE. PE teachers at the school were asked to recruit pupils who were known to compete in sport outside of school PE, based either on the school's "gifted and talented" register, or on the PE teacher's own informed judgements. If consent was granted by both the school and the parents (Appendix D), children who met these criteria were taken out of class and interviewed at the school site, one class at a time. Ability levels ranged from absolute beginners up to and including those with 2-3 years experience and the vast majority of participants were competing in more than one sport. Using Côté's (1999) model of career development, all participants were considered to be career 'initiators' and met the following criteria: 1) Short career, usually less than 3 years, 2) Not specialised into, or committed to, one single sport, 3) Any talent or skills have not been formally recognised (e.g., not selected for any representative sides, emphasis is on sampling and 'deliberate play'), 4) and Aged between 7-12 years old.

4.2.2 - Data collection: Procedure

A focus-group approach was chosen in order to maximise the experience within each group and also to meet child-protection and ethical considerations. Groups were always mixed-gender and drawn from the same year-group (cf. Stewart & Shamdasani, 1990). Focus

groups are proposed to be highly appropriate in situations where the research is aiming to generate new ideas, language and applications and they can also help to embolden young participants to offer their opinions (Greenbaum, 1998). All focus groups were conducted on school premises by the first author and lasted between 40 and 65mins. An interview guide was used which had been piloted with a representative sample of athletes from varying levels (Appendix E). The style of asking questions was adapted following this piloting to be more accessible and pictorial aids were also introduced to represent a coach, parents and team-mates (cf. Stewart & Shamdasani, 1990). Feedback was also sought from primary school teachers regarding the comprehension level required to understand the questions. All Focus Group Interviews (FGIs) were audio-recorded and transcribed verbatim. The FGI began with a statement of what was being studied and a brief explanation of the concept of motivation and situational goals. Following this, participants provided their names and ages for the tape and listed the sports they participated in outside of school (and any attainments achieved). This process facilitated subsequent questions and transcription - it also acted to 'break the ice'.

After this initial phase, the interview continued with questions intended to assess the influences (positive and negative) of coaches, parents and peers on the main dimensions of motivated behaviour (Atkinson & Birch, 1970; 1978; Bolles, 1975; Eccles *et al.,* 1983; Ekman & Friesen, 1975). These dimensions included effort, persistence, choosing challenging tasks, concentration, and enjoyment. Sample questions included: "What things can your coach do, or say to make you really want to try hard in your sport, and never give up?", "How can your parents, either of them [make your enjoy your sport / focus you on learning new skills / help you to keep tying, even when you're struggling]?" and "Let's talk about the people who are friends playing your sport. How can your team-mates make you want to try harder, and never give up?" The interview finished with some summary questions such as: "If you could write a wish-list to your coach and say 'To make me try hard all the

time, to make me really want to come back every week, this is how you should be'; what sort of things would go on that list?" and "What are the most important things people can do to make sure you try hard in/enjoy your sport?". Participants were always encouraged to seek clarification if they did not understand or were unsure. The sections relating to coaches, parents and peers were asked in a counterbalanced order between interviews in an attempt to alleviate any effects of fatigue or boredom. Additionally, when addressing the influence of coaches, participants were instructed to focus on their coaches during organised sport and not their school teachers.

Participants were allowed to respond freely and debates were encouraged when participants had different perspectives. If questions intended for later in the interview were discussed this was not prevented by the interviewer. Probes were included to facilitate deeper exploration and focus on themes and questions-of-interest that arose from previous interviews (see 4.2.3 below). Thus, while the interview possessed structure, there was flexibility in how questions were asked and followed up, allowing depth of exploration and better rapport (e.g., Appendices G and Hi). The interviewer had attended training in child protection and made informal assessments of any potentially challenging reports, although no further action was judged to be necessary in any instance.

4.2.3 - Data analysis

The process of data analysis started after the first interview, with the interviewer reflecting on the responses given and sharing these reflections with the other researchers. As a result of these processes, the data gathered became increasingly focused around emerging themes and questions. An eight-step procedure was adopted to prepare and analyse the qualitative data and to maximise the trustworthiness of the analysis: 1) transcribe FGIs verbatim (in total, yielding 220 pages of single spaced text); 2) read and re-read transcripts for familiarisation (also listening to tapes); 3) divide quotes into those concerning coaches, parents and peers; 4) perform a thorough inductive content analysis within each domain

drawing from the basic premises of Grounded Theory (Charmaz, 2006). This was performed using QSR N-Vivo7 software (QSR, 2002); 5) inter-rater checking was conducted wherein a random sample of 6 manuscripts was also coded by co-researchers and colleagues and differences between these codings were considered during the initial coding of the remaining data. An inter-rater agreement of 82% was observed, which is relatively high (e.g., 81% in Weiss, Smith & Theeboom, 1996). Additionally, the second and third authors independently checked the initial and focused codings, 6) internal and external member checking were carried out to assess the accuracy of manuscripts, interpretations and the relevance of the resulting analysis. During the interview, member checking consisted of the researcher restating, summarising, or paraphrasing the information received from respondents to ensure that what was heard was correct. Following data collection, a sample of transcripts were sent back to the participating schools to check the accuracy with participants, and also findings were presented to a new set of participants, asking for commentary and incorporating these comments into the findings where necessary; 7) an iterative consensus validation process was conducted with two members of the research team to ensure the integration of codings into particular categories made the most analytic sense. Members of the research team asked critical questions and encouraging the first author to reflect during the different stages of the inquiry, and 8) a peer debrief was conducted with the remaining researchers throughout the analysis as well as in review of the final analysis.

This structured use of multiple sources of data, investigators and theoretical viewpoints is proposed to facilitate a triangulation of the subject matter which is less susceptible to individual bias (Biddle *et al.,* 2001). There were 769 initial codings and these were formed into 492 focused codings that were then used to sift through larger amounts of data. Within the inductive process, all identified codes represented the interpreted meanings of the athletes' responses. Some codes were directly named after the participants' own words, whilst others were named after concepts existing in the literature that were representative. In the

latter case, processes of private reflection, consensus validation and peer review were utilised to ensure that these codes and the categories they represented were embodied in the data and not forced upon it (cf. Strauss & Corbin, 1998). The process of filling out emergent categories was assisted by constant comparison procedures, wherein initial codes were compared to more focused codes (already integrated into emerging categories) and were either added to them or used eventually to develop new categories. This recursive coding of properties, interactions and contexts/situations ('processes') was carried out until no new information about a category seemed to emerge (Strauss & Corbin, 1998). For the purposes of this particular study, the analysis focused on motivationally relevant sources and forms of perceived influence that were common across the range of participants (cf. Holt & Dunn, 2004).

4.3 - Results

With a view to highlighting the potential integration of coach, parent and peer influences, Table 1 was constructed to highlight Higher-Order Themes (HOTs) that showed strong correspondence, and the results will be presented in a format matching this; listing congruent themes which related to all 3 social agents, then themes which showed similarities under any 2 social agents, and finally the themes that emerged and appeared unique to one social agent. Where quotations are provided, the participant's reference is given in the form [GENDER-AGE-SPORTS].

Table 4.3: Integrated representation of the emergent categories and themes relating to each social agent, in the motivational environment for children during the initiation stage of their sporting careers. Similarities between the findings for each social agent are highlighted by being presented concurrently.

<table>
<tr><td>All 3 social agents</td><td>Feedback and evaluative behaviours</td><td colspan="3">Coach - Parent - Peer</td></tr>
<tr><td></td><td></td><td>Coach Feedback
a. Verbal feedback
1. Negative feedback and criticism
2. Positive feedback and praise
3. Ability beliefs conveyed in feedback
b. Behavioural reinforcement
1. Punishment for mistakes
2. Punishment for unsporting behaviour
3. Rewarding normative success
4. Effort-contingent reinforcement</td><td>Parent evaluative behaviours
Verbal Feedback
a. Parent criticism
1. Negative feedback
2. Constructive feedback
b. Comparisons
c. Positive feedback
d. Behavioural reinforcement
1. Effort contingent reinforcement
2. Outcome contingent reinforcement</td><td>Peer evaluative communication
a. Immediate reactions to mistakes
1. Anger and criticism
2. Mistakes tolerated
b. Post-hoc comments
1. Discussing team selections
2. Praise and positive feedback
3. Criticism and negative feedback</td></tr>
<tr><td rowspan="4">2 social agents</td><td colspan="4">Coach - Parent</td></tr>
<tr><td>Leadership style</td><td colspan="2">Coach leadership style

a. Collaborative style
b. Controlling style
1. Prescriptive decisional style
2. Denying choices
c. Maintaining discipline</td><td>Parent leadership style
a. Collaborative style
b. Controlling style
1. ‘Not letting me express myself’
2. Trying to influence career and selections
3. Using rewards as a mechanism of control
c. Different parenting styles ‘balance out’
d. Knowledge-experience of sport</td></tr>
<tr><td>Emotional and affective responses</td><td colspan="2">Coach emotional and affective responses
a. Coach propensity for anger
b. Positive affective style
c. Tolerant coach</td><td>Parents’ emotional and affective responses
a. Parent propensity for anger
b. Tolerance of failures
c. Positive affect (Happiness and cheering)</td></tr>
<tr><td>Pre-performance motivating behaviours</td><td colspan="2">Coach pre-performance motivating behaviours
a. Encouraging effort and mastery
1. Improvement emphasis
2. Encouraging participation
b. Encouraging rivalry and competition
1. Building up rivalries
2. Focus on winning
c. Approach-based and positive emphasis
d. Avoidance and negative approaches
1. Avoidance goals
2. Emphasises negative consequences</td><td>Parent pre-performance motivating behaviours
a. Encouraging effort and participation
b. Concern for results
c. Approach-based motivations</td></tr>
<tr><td rowspan="2">1 social agent</td><td colspan="2">Coach only</td><td>Parent only</td><td>Peer only</td></tr>
<tr><td colspan="2">Instruction and pedagogic considerations
a. Equal treatment and perceived fairness
1. Equal treatment
2. Unequal treatment
b. One-to-one coaching
c. Grouping of athletes
1. Heterogeneous ability groupings
2. Homogeneous ability groupings
d. Task design
1. Creating competition in practice
2. Variety and fun
3. Tasks at optimal level
4. Repetitious or emphasising a single skill
e. Selection
1. Selection based on mastery
2. Competition for places
f. Use of modelling-demonstration
g. Evaluation criteria
Mastery-based evaluation
Normative evaluations
Fault-finding’</td><td>Parent play-and-teach behaviours
a. Facilitation of practice
1. Encouraging practice
2. ‘Garden play’ – informal-fun involvement
b. Balance of instruction and practice/play
c. Conflicting advice to the coach

Parent support and facilitation
a. Material and emotional support
b. Support is unconditional
c. Watching-spectating</td><td>Peer relationships and social interactions
a. Linking competence to social outcomes
b. Separating competence from social outcomes
c. Friendship and affiliation
d. Group identity and perceived belonging

Competition amongst peers
a. Boasting and pride
b. Negative reactions to defeat
c. Peers playing well
d. Rivalry and conflict
1. Fostering rivalry and conflict
2. Competitive body language

Peer collaboration and altruistic behaviours
a. Building confidence in each other
b. Emotional and moral support
c. Collaborative play and learning
d. Emphasising effort
e. Encouraging practice</td></tr>
</table>

4.3.1 - Coach, parent and peer commonalities

The concept of 'feedback'/'evaluative communication' emerged separately in all three dimensions of the analysis. Whilst in the coaching dimension, a more defined 'feedback' theme emerged, the parent and peer dimensions produced slightly broader themes that were termed 'evaluative behaviours' or 'evaluative communications'. These HOTs have been grouped together in the presentation of findings in order to facilitate the integrated consideration of how multiple social agents influence athlete motivation (see also Table 4.3).

Overall, both coaches and parents were found to influence athlete motivation either through verbal feedback or behavioural reinforcement. In each instance, verbal feedback was divided into 'positive feedback', which was generally reported to be a positive influence on motivation, and 'negative feedback' which was generally thought to have a demotivating effect, and perhaps pertain to avoidance-valenced goals, for example (regarding the coach): "I mean you get worried if you forget to do one of the things [criticisms]. You're trying so hard to do those things that it just goes blank out of your mind" [F10.8-SWIM/DANCE]. However, one caveat to this was the reporting of an *'I'll show him!'* reaction in response to criticism: "Prove him wrong yeah. Like, if he says 'You can't do it. These guys are so better than you', then you wanna prove him wrong" [M8.4-SOCCER/SWIM]. Within 'parent criticism', negative feedback was generally reported as relating to negative affective responses and the undermining of motivation, whereas constructive criticism was linked to the adoption of mastery and approach goals and was less associated with negative feelings or cognitions.

Participants reported, even at this young age, that coach feedback could convey ability beliefs (cf. Dweck, 1999) and although this was not referred to regarding parents within the focus groups, it is a possibility worth entertaining. Specifically, labelling-summative comments

(such as ‘you’re not very good at that’) conveys the message that the child’s ability is fixed. In contrast, constructive-formative comments (for example ‘if you just adjust your position you’ll have a better chance’) convey the message that the child’s ability is incremental and can be improved with effort and/or persistence. For example:

> *Summative feedback*: Like say you’ve gone wrong and they didn’t tell you where you’re going wrong, you could sort of worry and think “well I don’t know where I’ve gone wrong so I don’t know how to make myself get better”... ...They just said “you’ve gone wrong” [F-10.3-DANCE/BALLET]

‘Behavioural reinforcement’ referred to the use of rewards and punishments to try and influence the child’s behaviour. Regarding parents, effort-contingent reinforcement (for example, sweets or money for trying regardless of result) was reported in generally positive terms, whereas outcome-contingent reinforcement (for example, sweets or money for winning or achieving a high place) was reported as having mixed influences, from increasing pressure (e.g., regarding parents: “If it's quite a big reward, like a new Playstation game, and you like miss, you're like really upset with yourself… it might have been your only chance to get it. And you've missed it” [M-9.3-SOCCER/TENNIS/CRICKET]) to potentially providing an added incentive. Within behavioural reinforcement, coaches were reported to: 1) punish mistakes (which often related to negative affect, fear and the adoption of avoidance goals), 2) punish unsporting behaviour, 3) reward normative success (which was reported as having mixed effects, particularly on the individuals not receiving rewards) and 4) offer rewards for effort (which was generally reported to promote effort and participation and encourage persistence); for example (regarding the coach): “If you like do something a bit wrong, but you really tried, she says ‘That was excellent’ and ‘That was really, really good’, and she keeps saying things like ‘Keep trying’. But if you're

not trying... she doesn't say anything" [F10-SWIM/ATHLETICS].

In contrast to coaches and parents, the HOT 'peer evaluative communication' was best analysed as a function of their chronological occurrence, and so were labelled 'immediate reactions to mistakes' and 'post-hoc comments'. 'Immediate reactions to mistakes' could include either 'anger' or 'tolerance'; with anger likely to induce avoidance motivation, negative affect and interpersonal conflict, whilst 'tolerance of mistakes' at least avoided these negative consequences and was generally reported in positive terms. 'Post-hoc comments' contained: 1) 'praise and positive feedback' and 2) 'criticism and negative feedback', which were similar in their content and consequences to the analogous coaching and parenting themes. In addition a theme emerged that was labelled: 3) 'discussing team selections', which related to the endorsement of normative definitions of competence, for example:

> I talk to my mates like "Oh I really want to get picked for this team... I don't think this person should be picked, and this person shouldn't be, because this person isn't very good, and this person is" and we talk about who should get picked. [M-8.10-TENNIS/SWIM]

4.3.2 - Coach and parent commonalities

Leadership style: Both coaches and parents of young athletes are placed in a position of strong leadership due the young athlete's heavy dependence upon adults for both instruction and pragmatic support. As such, the leadership HOT in both dimensions related to the manner in which this leadership is undertaken. The central distinction was between a controlling/autocratic style and an autonomy supportive/democratic style. The emergent categories within this dimension included 'collaborative style' (e.g., regarding the coach: "They won't persuade you to be put in any position, like if you're really rubbish at goalkeeper then they won't persuade you to

go in goal, they might ask you where you want to play"[M8.4-SOCCER/SWIM]), and 'controlling style' (e.g., regarding the coach; "Well they don't ask me where I want to go. Maxy [coach] says 'Back in defence', and I'm like 'Oh'…" [M7.7-SOCCER/RUGBY]). Within the coaching climate, 'maintaining discipline' was generally valued by participants because it meant disruptions were prevented and more could be taught during a session/lesson, for example: "I don't think he's strict enough… The other people are trying to concentrate, but then you get these like really naughty people who are trying to like mess up the lesson... and he doesn't do anything!" [F10.0-SWIM/ATHLETICS]

Controlling style was further subdivided in each dimension, however the sub-categories emerged differently for parents and coaches, perhaps as a function of the different roles they perform (see Table 4.3). Conroy and Coatsworth (2007a, b) and Assor *et al.* (2002) identified similar ideas in their investigations of coach and parent leadership styles. For example, offering choices, explaining decisions, listening to the athlete's feelings, a controlling/prescriptive style, suppressing criticism and intrusion/meddling are ideas expressed in these studies which are highly compatible with the themes discussed herein, with similarly young participants.

Emotional and affective responses: This theme was separated from such themes as feedback and evaluation as they did not always have an evaluative component, but reflected the tendency of the coach or parent to show negative affect, positive affect, or tolerance. This was reported by participants as a determinant of their motivation/goal adoption, as a function of the affective responses the child may anticipate at any given moment and the consequences they would expect. Within this HOT were three emergent categories common to both parents and coaches: 'propensity for anger' (e.g., "They can really hurt your feelings when they shout at you, I hate shouting" [M8.0-SOCCER/SWIM/RUGBY]), 'positive affective style' (e.g., regarding the coach; "He laughs with you and makes you motivated and it's like he's a nice person it's just that he wants

us to win he wants us to do better" [M.10.6-SOCCER/TENNIS]; regarding parents: "They're just like 'I'm so proud of you', and you know you've done something right. They always make you feel glad" [M-9.3B-SWIM/TENNIS/SOCCER]) and 'tolerance of failures' (e.g., "Like they're not as hard really when you fail, they're a bit more easier" [M7.11-SOCCER/SWIM]) and "Like if you… say you keep on, can't doing it [sic] they don't shout at you" [M-7.11-SOCCER/SWIM]).

Pre-performance motivating behaviours: This theme specifically represents the behaviours undertaken in the period immediately before competitive performances, intended to motivate the participants. The four main emergent categories were: 1) 'encouraging effort and mastery': which further subdivided into 'improvement emphasis', for example: "He [coach] doesn't care about the results he just wants to help us get improving" [M11.3-SOCCER/RUNNING]; and 'encouraging participation', for example: "They say like, it doesn't matter where you come as long as you like do your personal best" [M11.4-ATHL/SOCCER/ BADMINTON]); 2) 'encouraging rivalry and competition' (which further subdivided into 'building up rivalries' and 'focus on winning'), 3) 'approach-based motivations' (which revolved around showing belief, building confidence and highlighting desirable possibilities, for example: "They say, maybe [playing well] that'll put you in *this* place and you've never been *there* before" [M-8.0-SOCCER/RUGBY/SWIM].), and: 4) 'avoidance and negative motivations', which was specific to the coaching climate in this analysis. This theme was subdivided into 'avoidance goals' and 'emphasising negative consequences', for example: "Like by saying 'oh we're gonna go to the bottom of the league if we don't win the match'. We was tempted to give up at some points [sic]." [M8.4-SOCCER/SWIM]. Several of these parenting themes echo the findings of Babkes & Weiss (1999), who also reported that parents can create pressure and lack of confidence, as well as building confidence in the young athlete.

4.3.3 - Themes unique to the coach

Instructional and pedagogic considerations: This HOT referred to the way the coach goes about the regular duties of coaching, such as teaching, planning and implementing drills, making team selections, placing participants into groups and much more. As can be seen in Table 1, this HOT is made up of seven emergent categories; detailed below.

'Equal treatment and perceived fairness', pertained to either preferential treatment of participants (e.g., favouring athletes demonstrating normative ability or a family relationship by sparing them punishments for bad behaviour), which was reported as undermining the motivation of others, or the equal treatment of the group, which was preferred by participants. 'One-to-one coaching' related to the time spent by coaches giving instruction, attention, evaluation and feedback individually. This coaching behaviour was generally construed as having a positive influence on motivation, for example: If you try and do something hard, they just come to you and help you... …And that helps me feel better with my technique because they're just focussing on me and helping me. [F-9.3-GYMNAST/TENNIS]

'Grouping of athletes' emerged as an important theme, however, as opposed to being strongly related to any goal adoption, or even being generally positive or negative, the issue of heterogeneous versus homogeneous groupings was raised and explored without being consistently linked to any motivational outcome or achievement goal.

'Task design' related to all aspects of the drills and practices that the coach organises during their practice sessions. Fundamentally, the very nature of the tasks that the participants undertake was reported as having an influence on their motivation. Competitive tasks such as short competitions at the end of practice were seen as motivating and as good practice for real competition. This is in contrast to the pre-competition theme of 'promoting competition and

rivalry' which was generally seen as pressurising and negative. In addition, highly competitive practice sessions were not discussed, only small competitions at the end of practice. This may be consistent with the increased focus on skill development at this young age. 'Variety and fun' was an important aspect of task design, with a general agreement that a variety of fun tasks maintains good motivation throughout training sessions, for example "And they try to make it fun for you so you learn what they're saying and you have fun at the same time" [M9.6-TAE-KWON-DO/SOCCER/SWIMMING]. In contrast, 'repetitive drills emphasising a single skill' were perceived as either boring, or as creating pressure to execute the skill perfectly in subsequent attempts, for example: "If they're like concentrating on one thing, and saying 'You've got to do this thing, otherwise you can't be in', and you'll think about that loads, and forget all about your technique" [M-8.10-TENNIS/SWIM]. Finally, it was perceived to be important that tasks, where possible, were at an optimal level to challenge the participants; not too easy and not too difficult. These findings are compatible with those of McCarthy and Jones (2007) who reported themes of 'clear instruction' and 'lack of instruction' in relation to enjoyment of sport by young athletes.

'Selection' was a contentious and important issue even at this young age, with participants generally focussing on the tendency of coaches to use selection as an incentive by creating competition for places and offering 'promotion' to higher groups for normatively more able athletes. Competition for places was generally seen as having a negative impact on motivation, except by those who were consistently selected. 'Evaluation criteria' emerged as a theme relating to how athletes feel they are evaluated by their coach and was separated from feedback, wherein the outcome of the evaluation would be communicated to the athlete. It seemed that athletes could infer how they were being evaluated without necessarily receiving feedback, and this was also reported to influence motivation. Coaches who generally emphasise effort, improvement and

good skills were inferred to evaluate this way: “It’s what they say because like, my Tae-kwon-do teacher he says like at the end of the day if you’ve done your best then that’s all that matters” [M-9.6-TAE-KWON-DO/SOCCER/SWIM]. In contrast, coaches could be seen to evaluate normatively if they focused on results and outcomes: “The manager, doesn’t care about good play, all he wants is the result” [M11.3-SOCCER/RUNNING]. Finally, one potentially novel finding was that participants in this study were very sensitive to being evaluated by coaches seeking to ‘fault-find’. This was related to fear-of-failure and avoidance motivation, for example:

> There’s loads and loads of black-belts in the room. All staring at you, doing your thing. So you’re practicing and you don’t know, you don’t know whether you’ve passed or not and you’re not sure of one move, and I just feel a bit weird if I don’t know that set move, and if I’m gonna do it right or wrong. [M-9.6-TAE-KWON-DO/SOCCER/SWIM]

4.3.4 - Themes unique to parents

Parent support and facilitation: This HOT referred to the supportive role carried out by parents in transporting their children to training and competitions, purchasing equipment, and offering ‘moral support’ from the sidelines. Within ‘parent support and facilitation’ were the emergent categories of ‘material and emotional support’, ‘unconditional support’ and ‘watching-spectating’; each of these is exemplified below:

> *Material and emotional support*: [Talking about parents] If you’ve had like a really tough day at work and you came back and your child wanted to go to swimming practice or anything and you couldn’t be bothered to go, you’ve

> still got to take the child because they might actually turn out to be an Olympic swimmer… … your parents have got to believe in you. [M11.4- SOCCER/ BADMINTON]
>
> *Watching-spectating*: Like if you're in a match, a netball match or badminton match, they'll come along and support you, which makes you want to do better and make us win. [F11-DANCE/SWIM/ATHL]

Parent play-and-teach behaviours: This HOT described the activities and behaviours undertaken by parents away from the context of organised sport, aimed at developing or improving the child's competence. It seemed that while coaches actively plan sessions and teach skills, the role of parents was to facilitate practice and play, and join in with play activities in order to help the child develop. The emergent categories were entitled: 'facilitation of practice' (which was further subdivided into 'encouraging practice' and 'garden play'), 'balance of instruction and practice/play', wherein children preferred to receive less instruction from parents and instead simply play, and 'conflicting advice to the coach', wherein offering conflicting advice to the coach was reported as confusing, overloading, and detrimental to motivation. 'Encouraging practice' and 'Garden play' were two particularly strong themes that seemed to be highly representative of the parenting role at this stage of sporting development (also reported by Babkes & Weiss, 1999):

> *Encouraging practice*: They're always like "Practice your gymnastics now, practice your tennis now", and then you get better in your next lesson, because they told you to practice… ...you can do something that you couldn't do before. [F9.3- GYMNASTICS/TENNIS]·
>
> *'Garden play'*: And then you like bring them into the back garden and show them

and they'll say "Yeah brilliant that's really good" and you get more motivated and you use it in the game as well. [M-11.3-SOCCER/RUNNING]

And: They just say - like quickly - how you can do it, and then, if you do it like once or twice, and then you realise that you can do it really easily. And, like, they keep doing that and you keep getting better at different things. [M-8.9-TENNIS/SOCCER/RUGBY]

4.3.5 - Themes unique to peers

Peer relationships and social interactions: Within this HOT, the emergent categories were labelled 'linking competence to social outcomes' (e.g., "Saying mean things [like]... um, "You're in the wrong group"…and "That's rubbish! You're not being my friend any more" [F-7.5-DANCE/SWIM]). This was also reported by McCarthy and Jones (2007), 'separating competence from social outcomes' – wherein no link was made between skill-level, normative ability or sporting outcomes and friendship, 'friendship and affiliation' – which was reported as a key motivating factor (also reported by Weiss, Smith & Theeboom, 1996), and 'group identity and perceived belonging', which was also reported as a key motivating factor. By implying that poor performance may have implications for making or losing friends, peers are able to endorse and promote a definition of competence, which may then impact on the adoption of goals. In contrast, by keeping social outcomes separate and remaining friends regardless of competence, this link would not be created.

Competition amongst peers: This HOT reflects any behaviour that peers may exhibit in performance situations (chiefly training and competing) that were perceived to be promoting normative evaluations of competence. The emergent categories within this theme were labelled: 'boasting and pride', 'negative reactions to defeat', 'peers playing well', 'rivalry and conflict' and 'competitive behaviours'.

'Boasting and pride' represented any attempts by athletes to draw attention to their normative success, often by mocking those they have beaten. The effects described varied from undermining motivation (e.g., "That makes you think 'Oh why am I bothering then?'" [F11-DANCE/SWIM/ATHLETICS], to also include provoking increased effort (e.g., "It could make you feel angry, or it could make you feel 'I'm going to be as good as you' and then try harder." [F-9.3-GYMNAST/TENNIS]). 'Negative reactions to defeat' included anger, criticism and the withdrawal of friendship, which seemed to prompt athletes to infer competitiveness in peers. 'Peers playing well' related to when team-mates or opponents execute good skills. The participants in the following example described the effect as one of pressurising instead of inspiring or leading-by-example (described elsewhere): "Yeah because like in swimming [relay] like if you're the last one to go and like all your team-mates have made you be in front then they're like depending on you and that makes you feel like… pressure" [F-11- TENNIS/ BADMINTON/SWIM]. Such a theme may have very different effects depending on the nature of the sport, be it an interactive, co-active or independent sport. This highlights the heavy interdependence of constructs in determining motivational outcomes. 'Rivalry and conflict' was similar to 'boasting and pride' but could occur between peers at any time and did not necessarily originate from a normatively more able athlete towards those they had defeated. Fundamentally, the theme revolves around normative comparisons and often attempting to gain some advantage by upsetting an opponent. For example:

> Sometimes like if you fall out with them a bit and they say like 'I bet you can't do it' then that can make you want to try hard and go and do it more, to prove them wrong… …Even if you're like best of friends it can turn to rivalry [M11.4-ATHL/SOCCER/BADMINTON].

Once again, the effects of these behaviours could equally undermine and/or increase motivation, provoke normative or mastery definitions of competence, and induce approach or avoidance goal adoptions. All the main ideas in this category are cogent with ideas identified in other qualitative-exploratory studies such as Weiss *et al.,* (1996) and McCarthy and Jones (2007).

Peer collaboration and altruistic behaviours: This HOT reflects any behaviours that peers may exhibit in performance situations (training and competing) that increased the likelihood of collaboration or increased the chances of another peer performing well or improving. The emergent categories in this theme were labelled: 'building confidence in each other', 'emotional and moral support', 'collaborative play and learning', 'emphasising effort' and 'encouraging practice'.

'Building confidence in each other' was generally a pre-performance behaviour, and involved making statements such as 'we believe in you' and 'you can do it'. The reported effects ranged from increased confidence and shifts towards approach goals, to also include feeling pressurised. It was also generally perceived to be an act of kindness and friendship.

'Emotional and moral support' referred to behaviours such as clapping, pat-on-the-back and verbal persuasion to keep each other's 'heads up' and was included in this category due to its tendency to occur in performance situations more than other contexts. These were also perceived as acts of friendship and quite often as having a positive influence on motivation. 'Emphasising effort' (e.g., "They go 'just try your best, even if you miss, it doesn't really matter'" [M-9.3-SOCCER/TENNIS/CRICKET] and 'encouraging practice, both emerged and showed good consistency with similar themes identified elsewhere (see discussion). 'Collaborative play and learning' referred to acts of collaboration *not only* in order to improve skill or understanding (e.g.,

"Showing you how to do it. Like with my friend she just helped me learn, and showed me how to do things, and then in the end, I just thought I'd be really good at it" [F-9.3-GYMNAST/TENNIS]), *but also* during matches and competitions (e.g., "Because I know that like they want to win, and so they will pass to me, they're not just gonna shoot and miss. They're going to pass to someone in a better position than themselves" [M-9.3-SOCCER/TENNIS/CRICKET]). As above, many of the themes in this category are resonant with ideas found in Weiss *et al.,* (1996) and McCarthy and Jones (2007), for example collaborative playing style, offering advice and help, 'positive rivalry' and emotional support/bonding are all ideas which appear to be replicated across studies.

4.4 - General discussion

4.4.1 – Review of findings and implications

This study set out to produce a detailed description of the motivationally-relevant behaviours of coaches, parents and peers in early-career sport performers. Three key objectives drove this research: 1) an interest in appraising the relevance and applicability of 'motivational climate' to athletes under 12 years of age, 2) consideration to the broadness of the concept of 'motivational climate' by using an inductive approach to reveal relevant motivational constructs that may currently lie beyond the lens of dichotomous framework of achievement goals (Ames, 1992), and 3) a deeper understanding of the potentially separate but also integrated motivational roles of coaches, parents and peers at this early athletic stage.

The focus groups yielded highly pertinent and rich data offering a comprehensive representation of the specific behaviours of key social agents which were reportedly relevant to the motivation of young athletes. The results serve to reinforce the importance of studying social and environmental influences on athlete motivation at this developmental stage and offer insights

into how coach-, parent- and peer-climate interventions might be extended in terms of existing practical content (e.g., Smith, Smoll & Cumming, 2007) .

Further, although an open-minded, inductive approach was purposefully pursued, several of the emerging themes and concepts resonated very clearly with the range of motivational theories reviewed earlier. For example, the HOT 'coach instruction and pedagogic considerations' demonstrated consistency with Ames' TARGET framework, as well as offering potentially fruitful additions. For example, the theme of coach 'evaluation criteria' contained references to both mastery-based and normative evaluations, as-well-as 'fault finding'. Themes associated with 'pre-performance motivating behaviours', from both parents and coaches, showed consistencies with the trichotomous or 2x2 models (Elliot & McGregor, 2001), whilst the HOTs of 'leadership style' and 'emotional responses' were congruent with aspects of autonomy support and relatedness support, within SDT (Deci & Ryan, 2000). Components of the peer climate showed similarities to those cited in Vazou *et al.* (2005) as well as recognisable links to social goals (cf. Urdan & Maehr, 995; Wentzel, 1993).

Overall, at this early age, it appears that coaches and parents have a relatively strong influence on athlete motivation, perhaps due to their singular positions of authority and integral involvement. Their influences are also comparable in nature, which is proposed to be a function of the similar roles they perform (for example: where their roles differ, their influences differ too). Peer influences appeared to be qualitatively very different to coaches and parents, and perhaps less consistent, as a function of the sheer number and variability of peer relationships. This inconsistent and disparate influence of peers might lead to the proposition that, relative to parents and coaches, the influence of peers on motivation in young athletes at this specific stage may be less significant.

Whilst there were very few indications of interactional overlaps between social agents (e.g., parents 'conflicting information to the coach' was the only sub-category to clearly suggest the importance of collaboration between social agents), there were interesting commonalities that emerged between agents. Parents and coaches showed the strongest similarities, with leadership style, evaluation/feedback, emotional and affective responses, and pre-performance motivating behaviours emerging in both dimensions. For example, the evaluation/feedback aspects of coaching and parenting were quite comparable, with both verbal feedback and behavioural reinforcement figuring strongly. As was the case with peer evaluative communications, the clearest divide was between positive and negative evaluations, with fewer references to normative-versus-mastery definitions of competence. The strong similarities between the coach and parent dimensions are most likely to reflect the highly comparable positions of leadership and responsibility they hold when dealing with such young athletes. Not only are coaches and parents likely to be the key decision makers during the young athlete's participation (determining drills, games, practice time, offering lifts, buying equipment), they are also charged with ensuring the athlete's safety, as well as (most likely) being held in high esteem by the athlete.

In contrast to the peers' dimension, and also to older athletes, these role-related aspects appear to be pivotal in establishing the motivationally-relevant behaviours that these agents can perform, as well as the likely perception and impact of these behaviours. Ongoing research comparing young athletes with older and 'elite' populations is likely to expand on these role-related differences and research examining the changing roles, relationships, and power-relations across the athletic career is recommended on the basis of these findings.

4.4.2 - Beyond competence motivation – autonomy and relatedness in sport

The conceptualisation of climate is determined heavily by whether one considers sport to be a context where competence goals dominate (cf. Roberts, 2001), or whether one acknowledges that participation in sport may, at any time, involve goals pertaining to other motivational constructs such as relatedness and autonomy. Several recent papers have argued that sport does encompass the pursuits of competence, autonomy and relatedness alike (e.g., Allen & Hodge, 2006; Mageau & Vallerand, 2003). Despite these arguments having never been applied to the motivational climate of 7-11 year olds, the current findings provide evidence that all three of the constructs suggested in Deci and Ryan's (2000) SDT are important in determining the motivation of very young athletes.

Among coaches and parents, supporting autonomy could be evidenced through collaborative leadership styles (or threatening a child's autonomy needs with autocratic leadership styles), whilst the supporting of relatedness was evidenced by facilitating the formation of friendships and the establishing of group identities. Among peers, 'friendship and affiliation' and 'group identity and belonging' bear a strong resemblance to the social motivations identified by Allen (2006) and Ullrich-French and Smith (2006); whilst the linking (or not) of competence to social outcomes is an interesting finding amongst participants at such a young age, although it is consistent with findings elsewhere (e.g., Evans & Roberts, 1987; Skinner & Piek, 2001). One area worthy of future research was the apparent cross-over between these domains, such that relatedness could be used to incentivise a competence goal, or autonomy supportive behaviour might contribute to an improved relationship (cf. Gurland & Grolnick, 2005). Further research into these interactive effects is likely to improve our overall

understanding of the social motivational processes that are active within the sporting milieu. Such research could perhaps build on similar work conducted in academic motivation (e.g., Wentzel, 1993; Wentzel & Wigfield, 1998) which has shown that high-achievers frequently pursue both academic and social goals, whereas lower achievers display a unique "unwillingness to try to conform to the social and normative standards of the classroom" (1998, p. 162). Emerging research in sport has found links between quality of friendship and peer acceptance with enjoyment and perceived competence (e.g., Allen, 2006; Ullrich-French & Smith, 2006).

In sum, the experiences of these young athletes spoke not only to the significance of performance-versus-mastery definitions of competence, and approach-versus-avoidance valences, but also to the social goals and autonomy goals that may be supported and endorsed (or undermined and threatened) by key social agents across a variety of contexts and situations. This ultimately led to themes pertaining to contexts and situations.

Throughout the findings of this study, single behaviours (and themes) from coaches, parents and peers were related to various, and sometimes conflicting, motivational impacts. For example, depending on the respondent, the source and the context; negative feedback was reported as producing reduced motivation, avoidance-based motivation, improvement and mastery, anger/frustration, damaging relationships, 'being honest' and even being controlling (undermining autonomy). This suggests that the relationship between the behaviours of social agents and their impact on motivation is likely to be moderated by a number of contextual and interpersonal factors. Moreover, a persistent and dominant theme across the analysis was that of 'positivity' i.e., positive feedback, positive affective responses, positive pre-competition talks (pep-talks), encouragement, collaboration/support and fun (e.g., in training) were consistently and positively linked with athlete motivation, regardless of the social agent or context. Among

young participants commencing their athletic careers, considerations of positivity should arguably be central, even above technical proficiency or 'getting noticed' (e.g., by scouts), if we wish to promote enjoyment and continued participation.

4.4.3 - Limitations

It is important to remain cognisant that a 'detailed description' is all the study set out to achieve and any reference to motivational outcomes such as goal adoptions, affective, cognitive and behavioural responses must be interpreted cautiously due to the qualitative nature of the investigation. Other limitations of the study include the young age of some of the participants, which may have influenced their ability to recall and articulate their experiences effectively and, equally, the use of focus groups may have introduced limitations such as social desirability, perhaps preventing the participants from being openly critical of coaches, parents or peers. Whilst the quality and depth of the responses provided would suggest these were not serious problems, they must be considered in evaluating the findings of the study. It was also impossible to establish the relative impact of each social agent in the current qualitative study, although the findings should contribute to future research that may address this issue. Finally, the dependence on PE teachers' judgements for the recruitment of participants (who played sport outside school) may have introduced an element of unanticipated variability in the sample, although the interviewer's efforts to focus responses on sport outside of school should have mitigated any impact from this and the quality of the responses was generally not judged to be a cause for concern.

4.4.4 - Recommendations and implications

Whilst appropriately acknowledging the concerns of Duda and Whitehead (1998) related to the range of questionnaires assessing motivational climate, the specific age group concerned, as-

well-as the relevance of other constructs, suggest that the development of a broader measure or procedure is essential in order to progress our understanding of how the social environment shapes the motivation of young sport performers. Such a measure may help to determine the relative importance of each social agent, which has so far been difficult to establish. It may also enable researchers to examine the effects of apparently contradictory behaviours between coaches, parents and peers and find some way of modelling how these multiple variables determine children's motivation in sport. The data-driven approach in the current research cautions against the influence of having a single dominant framework or theory driving the developing model of motivational environments/atmospheres.

From the perspective of applied intervention research, this study encourages practitioners and academics to devote time to studying themes and behaviours across social agents in a manner that will enhance the content of educational programmes. At one level, this includes offering appropriate insights into adaptive and maladaptive contextually relevant behaviours to coaches and parents. A second level of intervention lies in educating coaches and parents about the effective management of peers (in their sessions) and peer responses to the young child-athlete. A third level may also include working directly with the child-athlete and his/her peers on the development of an effective peer climate (e.g. what makes a good teammate, who makes you want to try hard and improve?). Recent intervention work using the AGT (Nicholls, 1989) model of motivational climate has focused on the Mastery Approach to Coaching (MAC - Smith, Smoll & Cumming, 2007) to enhancing athlete development. This intervention utilises a coach behaviour/education workshop approach, whereas the results here suggest the potential benefits and value of a wider and multi-level (multi-agent) programme.

In conclusion, the results from the current study attest to the multifaceted influence of

coaches, parents and peers on the motivation of early-career sports participants. Moreover, the findings suggest that a data-driven approach to conducting future studies of motivational climate holds promise in the light of recent developments within the motivation literature.

5 - Study 2

Socio-environmental influences on motivation in youth sport: The roles of coach, parents and peers with specialising sport participants[2]

5.1 – Introduction to the study

Motivation in sport is the key determinant behind every action taken and every effort exerted (or not) (Deci & Ryan, 2000) and understanding the dynamics of motivated behaviour in sport is arguably vital in order to optimise the skill development and long term health outcomes of youth sports participants. Whilst a proportion of an individual's motivation is determined by their own beliefs, cognitions and values, a significant influence can also be exerted by key social agents (Deci & Ryan, 2000) – and it is this social influence that forms the focus of this study. Over time, a significant amount of research has been conducted in an attempt to conceptualise and measure these influences (Harwood, Spray & Keegan, 2008), particularly from coaches, and this is overviewed shortly. In the current study, a broader focus was adopted than is apparent in much of the existing research; examining the wide array of potential motivational influences originating from coaches, parents and peers. As such, the terms *socio-environmental influences* and *motivational environment* has been chosen to reflect this broader, more comprehensive approach.

5.1.1 - Athletic career progression

Both Côté, Baker and Abernethy, (2003) and Wylleman, Alfermann and Lavallee (2004) propose models of athletic career progression. In each case, the early career is characterised by participants who are generally prompted to try a number of different sports to see if they either

[2] This study has been accepted for publication in Journal of Applied Sport Psychology (see Appendix K_{ii})

enjoy it, have some talent, or perhaps both. This period is termed the *initiation/sampling* stage (Côté *et al.,* 2003; Wylleman *et al.,* 2004). Following this, athletes tend to focus on one or two sports in which they specialise, learning the key skills, tactics and rules. This *specialising* phase tends to occur from around the age of 11-12. Athletes at this stage have three possible outcomes: they can seek to invest and develop into elite performers, compete at a recreational level, or retire from the sport. The next developmental stage is termed *investment / mastery* (Côté *et al.,* 2003; Wylleman *et al.,* 2004) and tends to begin from approximately 15 years of age, depending on the sport. This stage can either be considered to continue until retirement (Côté *et al.*, 2003), or it can take the performer to a state of maintenance (Wylleman *et al.,* 2004). The specialising career stage is difficult to delineate with any precision, as it is characterised by change. These changes include: a) decreasing number of sports/activities b) a decrease in deliberate play, being replaced with deliberate practice, and c) gradual changes in the roles of coaches (from 'helper' to 'specialist'), parents (from 'direct' to 'indirect' involvement) and peers (from stimulation/co-participation towards the fulfilment of emotional needs - Côté *et al.*, 2003). In contrast, the investment/mastery stage is defined by a heavy and exclusive focus on deliberate practice, specialist coaching in a single sport, and markedly decreased parental involvement (Côté *et al.*, 2003). This study addresses the specialising stage of development.

5.1.2 - Motivational climate research

As previously outlined (Chapter 2, Section 2.6), achievement goal theory (AGT - Nicholls, 1989) has dominated the way in which the social and environmental influence on motivation is studied. In AGT sport participants' immediate goals for achievement are determined by the interaction of their *goal orientation* (a proneness in individuals towards adopting certain goals), with the *situational goal climate* (the specific situational and contextual circumstances in which the achievement task is defined – Ames, 1992). The dichotomous AGT approach proposed by Nicholls defines these goals in one of two ways: *performance/ego* goals emphasise normative

evaluations and outperforming others, whilst *mastery/task* goals emphasise effort, personal improvement and task mastery. Throughout the innumerable studies conducted on this topic (Duda & Hall, 2001; Harwood *et al.,* 2008; Ntoumanis & Biddle, 1999), the presence of task goals has almost invariably been associated with positive motivational outcomes, whereas the presence of ego goals is hypothesised to produce an array of less desirable outcomes, especially when perceived competence is low, or where not accompanied by task goals. However, results regarding the adoption of performance/ego goals have been less consistent (Elliot, 1999; Harwood *et al.,* 2008).

Theoretical and empirical research has led to the development of the TARGET acronym, outlining the ways in which teachers and coaches can emphasise achievement goals: task, authority, recognition, grouping, evaluation and timing (Ames, 1992). A task-climate would include collaborative tasks, democratic leadership, recognition for effort/improvement, mixed ability groupings, private and individual evaluation, and sufficient time for everyone to learn. An ego-climate would include competitive tasks, autocratic leadership, recognition of normative ability, segregation by ability, normative and public evaluation, and time for only the more advanced students to complete a task. In most coaching environments, however, the above behaviours are likely to occur interchangeably depending on the circumstances. Extensive questionnaire-based research has revealed that a perceived mastery climate correlates with positive outcomes, whereas perceptions of a performance climate either show no such relationships, or correlate with negative outcomes (e.g. anxiety and tension, or reduced enjoyment – Harwood *et al.,* 2008). Given such a compelling body of research, relatively consistent findings and such a parsimonious theoretical model, it may not be surprising that AGT has dominated research for nearly 30 years. However, can something as complex as the ever-changing social milieu in which developing players participate be comprehensively represented by such a simple dichotomous model?

5.1.3 - Stepping beyond 'perceived motivational climate'

Within self-determination theory (SDT; Deci & Ryan, 2000), competence, autonomy and relatedness are conceptualised to be core psychological needs. The degree to which any context, situation or relationship supports these needs is hypothesises to directly predict an athlete's level of motivation. Whilst AGT chiefly concerns the pursuit of competence (Roberts, 2001), Stuntz and Weiss (2002) argue that sport is often highly public and therefore inherently linked with social considerations, so that athletes' perceptions of physical competence may well be intertwined with socially-oriented motives. Allen (2003) proposed a theory of social motivation in sport that focuses upon an athlete's desire for social competence in achievement settings, defined in terms of the forming of friendships, gaining social status and recognition, and the perception of belonging to a group, ideas supported by the work of Ullrich-French and Smith (2006) who found that closer friendships were associated with increased intrinsic motivation in sport. Urdan and Maehr (1995) called for the reconsideration of social goal orientations (after their initial inclusion in AGT) in describing and explaining achievement behaviour. Historically, social goals may include social welfare goals (i.e., to benefit the larger society), social responsibility (i.e., to be conscientious), social affiliation (i.e., to feel a sense of belonging), and social status goals (Urdan & Maehr, 1995; Wentzel, 1993).

The story becomes more complex, however, when it comes to the joint consideration of these various theories. AGT is sometimes taken to overarch all of the above considerations, such that in Vazou, Ntoumanis and Duda's study (2005), relatedness and autonomy considerations (from SDT) were deductively subsumed into the conceptualisation of a task-involving climate. This arguably overlooked the possibility that they might be related to both task- and ego-involving climates. The difference between achievement goals and social goals is also an area of tension, with some theorists preferring to subsume social goals into the ego-goal conception (Roberts, 2001), whereas Urdan and Maehr (1995) argued that the separate consideration of

social goals significantly increases understanding and predictive power. However, Elliot (1999) proposed that AGT should be limited to an exclusive focus on competence, excluding any consideration of self presentational or social status concerns. Despite this dissonance, there is also some convergence. All of these theories of motivational regulation have been linked with differences in levels of self-reported intrinsic/extrinsic motivation (Barkoukis, Thøgersen-Ntoumani, Ntoumanis & Nikitaras, 2007; Kavussanu & Roberts, 1996; Smith, Ullrich-French, Walker, & Hurley, 2006) and, despite the dominance of AGT in investigating socio-environmental influences on motivation (i.e., motivational climate research), research adopting other theories has frequently and fruitfully addressed interpersonal and social considerations, such as relationships (Mageau & Vallerand, 2003; Ullrich-French & Smith, 2006), autonomy support (Conroy & Coatsworth, 2007; Gurland & Grolnick, 2005; Pelletier, Fortier, Vallerand & Brière, 2002), peer-friendships and group considerations (Allen, 2003; Weiss, Smith & Theeboom, 1996), and the emphasis of approach-or-avoidance motivation by significant others (Barkousis *et al.*, 2007**;** Church, Elliot & Gable, 2001; Elliot, 1999).

The above points reinforce the need to investigate the motivational climate without an a-priori commitment to using one-or-another model of motivation to guide analysis and/or interpretation. All the theories described previously, as well as their various derivations/combinations, are arguably relevant to the study of social and environmental motivational processes. The critical-realist approach adopted in this study denotes that none of these competing theories should be given precedence over the others, especially prior to engagement with the subject matter – a kind of 'theoretical agnosticism' advocated by Henwood and Pidgeon (2003): an 'open mind' rather than an 'empty head' (see also Sandelowski, 1993)

5.1.4 - Deconstructing 'motivational climate'

As already noted, recent studies have started to examine the social and environmental influences on motivation without exclusively focusing on the AGT conception of a motivational

climate. These studies suggest researchers should incorporate more of a multifaceted approach to progress our understanding, even calling for a 'deconstruction' of what constitutes the motivational climate (Amorose, 2007; Smith, Smoll & Cumming, 2007). This shift has occurred in recognition of the ideas that the specific behaviours of coaches, parents and peers each impact athletes' motivation, and that these behaviours may have different impacts and influences between contexts, situations and developmental levels, and even between social agents. Study 1 identified very specific aspects of coach, parent and peer behaviour that sampling (initiation) athletes reported to be motivationally-relevant. In particular, Study 1 suggested that firstly, young participants were quite aware of how these social agents affected their motivation, and secondly, there was a vast array of behaviours and interactions that were reported to be motivationally-relevant. Prominent in the findings was the idea that the influences of social agents were related to the specific roles they fulfil (teaching, supporting, co-operating). The analysis indicated that the way a coach influences motivation related most strongly to the manner in which they perform their roles of instruction and assessment, whereas parents' influences were most salient in terms of the way they support participation and learning. Parents and coaches were reported to be influential in terms of their leadership styles, affective responses and pre-performance behaviours. However, where coaches and parents performed different roles (e.g., coaches teaching, parents supporting), their sources of influence differed too. Peers were perceived to influence motivation via competitive behaviours, collaborative behaviours, evaluative communication and through social relationships. With specific regard to samples of specialising athletes, Vazou *et al.*'s (2005) study did identify a wide array of peer interactions that could be taken to contribute to a task/ego achievement goals motivational climate. This study, alongside others such as Beltman and Volet (2007, Garcia-Bengoechea and Strean (2007) and Weiss *et al.* (1996), has started to create a picture of the ways in which peers influence each other's motivation, including: emphasising effort, emphasising competition, collaboration and help, type

and nature of evaluative comments, conflict (and its resolution/absence), emotional and moral support, and simply making friends or becoming part of a group. Likewise, recent studies have examined the roles of parents in more detail, identifying such behaviours as additional coaching/instruction, feedback and commentary, emotional responses and emotional intensity, autonomy support, controlling behaviours, maintaining focus, social support (Gould, Lauer, Rolo, Jannes & Pennisi, 2008; Holt, Black, Tamminen, Mandigo & Fox, 2008; Holt, Tamminen, Black, Mandigo & Fox, 2009) and the 'conditionality' of support - an interesting idea pertaining to whether parents emphasise a return for their 'investment' or assure the athlete that their support is unconditional (Gould *et al.*, 2008; see also Assor, Roth & Deci, 2004). These exploratory studies would appear to facilitate the dismantling that contemporary researchers have called for (cf., Smith *et al.,* 2007). Nonetheless what is missing from this research is a comprehensive and integrated description of the behaviours/interactions that athletes perceive to influence their motivation. Researchers and practitioners alike would arguably benefit from research producing an understanding of the immediate situational level-of-generality (as opposed to the more abstract contextual level, or perceived contextual level, which is easily reconciled with theoretical tenets but which is difficult to draw specific recommendations from and which often fails to reflect the complex interactivity of the multiple social interactions that shape motivation). Given the pivotal importance of the specialising career stage in both producing elite athletes and maintaining active and healthy lifestyles, this study set out to identify those specific situational behaviours of coaches, parents and peers that specialising athletes perceive to be motivationally relevant.

5.2 - Method

5.2.1 - Participants

Following ethical clearance from Loughborough University (Appendix A), 12 focus groups were conducted containing 79 sport participants (36 females and 43 males), recruited from 26 sports with an age range from 9.0 years up to 18.16 years (M = 12.93, SD = 1.82). Seventy-seven

of the participants were white European, one was of Asian, and one was of African, descent. The participants were recruited from two local schools, one Premiership football academy and one martial arts club. In each case, the head teacher (Appendix B), director or instructor (Appendix C) was contacted by letter explaining the study, and requesting to interview participants. In the case of the secondary schools, students were requested to take part if they played sport in their spare time, outside of school Physical Education lessons. Participants under the age of 18 (n=78) took a parental consent form home (Appendix D) and, if consent was granted, they were taken out of class/practice and interviewed nearby. Sport experience ranged from those with 2-3 years experience up to and including 5-6 years experience. Forty-two participants were competing in a single sport, 22 competed in two, and 15 reported competing in three or more sports.

Using Côté *et al.*'s (2003) model of career development, a maximum variability theoretical sample (Lincoln & Guba, 1985) of specialising athletes was sought with the following criteria in mind: a) career length (in main sport) over 2-3 years, b) beginning to focus on one/two main sports *outside of school PE*, and c) training regularly, e.g., at least once a week during the sporting season (i.e., deliberate practice). Whilst specialises are characteristically 11-16 years of age, this criterion was interpreted flexibly, such that 10 year olds training 2-3 times a week at a premiership academy appeared in the same sample as 18 year olds playing hockey twice a week at their local club. This not only reflects the changing and varied characteristics of specialising athletes, but it gives a voice to all relevant participants, rather than excluding those who may not have met predetermined selection criteria. Thirteen participants were representing their county, 18 were selected to train with a Premiership soccer academy and three had attended trials to represent their country. The remaining participants were chosen by their schools from a gifted-and-talented register; identifying pupils who had been recognised for their sporting achievement.

5.2.2 - Data collection: Procedure

As was the case in Study 1, a focus-group approach was chosen in order to maximise the

experience within each group and also to meet child-protection and ethical considerations. Focus groups are proposed to be highly appropriate in situations where the research is aiming to generate new ideas, language and applications (Greenbaum, 1998). All interviews took place at the school or training site and lasted 45-65 minutes. Participants took part under their own volition with no incentive offered by the interviewer. All interviews were conducted by the first author. A semi-structured interview guide (taken from Study 1 – see Appendix F) was deployed although questions changed as themes developed between interviews. The interview guide was piloted several months previously and checked by secondary school teachers for developmental appropriacy. These processes highlighted the importance of flexibility in asking, explaining and following-up the questions so as to ensure all group members felt able to contribute. After a brief introduction and ice-breaking exercise, the main questions were intended to assess the influences (positive and negative) of coaches, parents and peers on motivated behaviours; including effort, persistence, task choice, focus, and enjoyment (cf. Roberts, 2001). Sample questions included: "What things can your [coach/parents/team-mates] do, or say that influence how much you [want to play sport / want to try hard in your sport / enjoy your sport / focus on learning new skills / help you to keep trying, even when you're struggling]?" The interview finished with some summary questions such as: "If you could write a wish-list saying: 'To make me [come back every week / try my hardest all the time / really enjoy my sport] this is how you should be': What sort of things would go on that list?" and "What things should definitely be off that list?" The interview proceeded differently every time in response to the discussions and debates between participants. Participants were always encouraged to seek clarification if they were unsure. The sections relating to coaches, parents and peers were asked in a counterbalanced order between interviews to alleviate any effects of fatigue or boredom. Additionally, when addressing the influence of coaches, participants were instructed to focus on their coaches from organised sport and not their school teachers.

Participants were allowed to respond freely and debates were encouraged when participants

had different perspectives. If questions intended for later in the interview were discussed this was also permitted. Probes were included to explore or focus on themes and questions-of-interest that arose during or between interviews. Thus, while the interview was structured, there was flexibility in how questions were asked and followed up, allowing a greater depth of exploration and improved rapport (e.g., Appendices G and Hii).

5.2.3 - Data analysis

The process of data analysis started after the first interview was completed by the interviewer reflecting on the responses given and sharing these reflections with the co-investigators, often arriving at new themes to explore. As a result of this process, the data gathered became increasingly focused around emerging themes and questions. The same eight-step procedure adopted in Study 1 was implemented to prepare and analyse the data: 1) transcribe interviews verbatim (yielding 358 pages of single spaced text), 2) read and re-read transcripts for familiarisation (also listening to tapes), 3) divide quotes into those concerning coaches, parents and peers, 4) perform a thorough inductive content analysis, moving recursively between creating tags ("open coding"), creating categories ("focused coding"), and organising categories, using constant comparison and critical reflection to guide analysis (cf. Côté, Salmela, Baria & Russell, 1993) within each domain using QSR N-Vivo version 7 qualitative analysis software (QSR, 2006), 5) inter-rater checking of the coding in a sample of manuscripts (>80% agreement – cf. LeCompte & Goetz, 1982), 6) member checking via both internal (checking understanding during focus groups and returning scripts to ensure statements had not been misrepresented) and external (recruiting a new group of specialising participants to assess/discuss the findings) processes; 7) an iterative consensus validation process was conducted with two members of the research team to question codings, categorisations and the overall organisation of the data, and 8) a peer debrief (cf. Lincoln & Guba, 1985) was conducted with the remaining researcher throughout the analysis as well as in review of the final analysis. Within the analysis process, all

identified codes represented the interpreted meanings of the athletes' responses. The processes of private reflection, consensus validation and peer review were utilised to ensure that: a) code and category labels were represented in the data and not 'forced' upon it (cf. Charmaz, 2006), and b) the theoretical agnosticism, described in the introduction, was retained, i.e., each quote/theme/category was compared in relation to both other data (i.e., constant comparison - Lincoln & Guba, 1985) and *all* of the potential theoretical standpoints. Existing conceptions were forced to "earn" their way into the analysis rather than 'guiding' it (cf. Charmaz, 2006, p68).

The iterative and recursive coding of properties, interactions and contexts/situations (processes) was carried out until no new information about a category seemed to emerge. The analysis focused on motivationally-relevant sources and forms of perceived influence. The loudest message in the data was that "it's complicated", which led to an analysis prioritising breadth over depth in an attempt to identify as many contributing variables as possible. Space considerations prevent the full presentation of quotes and illustrations, but in an attempt to demonstrate the transparency and authenticity of the research, numerous quotes are presented and explicit links are made between the interpretive account and the findings of other related studies (Pawson & Tilley, 1997).

5.3 - Results and preliminary discussion

With a view to highlighting the potential integration of coach, parent and peer influences, Figures 1 and 2 were constructed to highlight higher-order themes (HOTs) that showed strong correspondence between social agents. The results list congruent themes which related to all three social agents, then themes which showed similarities among any two social agents, and finally, the themes that appeared unique to one social agent. Where quotations are provided within the text, the participant's reference is given in the form [GENDER-AGE-SPORTS]. In order to provide a full and complete representation of the findings whilst simultaneously attempting to offer sufficient explanation, all categories and themes that emerged from the analysis are presented in the figures,

and (where appropriate) discussed in relation to existing research. These findings do not represent an attempt to generate a new theory, but rather they provide as full and broad an account as possible of the motivationally-relevant indices in the socio-motivational environment, such that subsequent theorising may be facilitated.

Coach - Parent - Peer

Feedback and evaluative behaviour

Coach Feedback
a. Valence of feedback
1. Praise and positive feedback
(+Conroy & Coatsworth, 2007)
2. Criticism and negative feedback
(+Conroy & Coatsworth, 2007)
(+Reeves *et al*., 2009)
3. Balanced feedback

b. Implicated conception of the nature of ability
1. Entity conception
i. Labelling-Summative
ii. 'No point helping'
2. Incremental conception
i. Constructive-formative
ii. Always offer help

d. Reinforcement strategies
1. Punishment for mistakes
(+McCarthy & Jones, 2007)
2. Rewarding normative success
3. Effort-contingent reinforcement
4. Lack of reinforcement (McCarthy & Jones, 2007)

Parent evaluative behaviours
a. Verbal feedback
1. Criticism and negative feedback
i. Constant-lingering criticism
ii. Negative feedback
(+Reeves *et al*., 2009)
(+Holt *et al*., 2009)

2. Balanced feedback (+Holt *et al*., 2009)

3. Praise and positive feedback (+Holt *et al*., 2009)

4. Implicated conception of the nature of ability
i. Formative-constructive
ii. Summative-labelling

b. Comparative behaviours
i. Comparisons to other children (+Gould *et al*., 2008)
ii. Bragging / reflected glory (Gould *et al*., 2008)

c. Behavioural reinforcement
1. Effort-attitude contingent
2. Unconditional praise
3. Outcome contingent reinforcement
4. Stressing external reward structure (Gould *et al*., 2008)

Peer evaluative communication

a. Immediate reactions to mistakes
1. Anger and criticism (+Vazou *et al*., 2005)
2. Encouragement after mistakes (+Vazou *et al*., 2005)

b. Verbal commentary

1. Praise and positive feedback
(+Vazou *et al*., 2005)
(+Beltman + Volet, 2007)

2. Criticism and negative feedback

Coach - Parent

Leadership style

Coach leadership behaviours
a. Autonomy supportive behaviours
1. Collaborative decision style
2. Open 'hands-off' approach

b. Controlling style
1. Controlling prescriptive style (+Conroy & Coatsworth, 2007)
2. Denying choices

c. Relationships with athletes
1. Liking and trust (closeness)
2. Dedication-commitment

d. Coach experience
1. Experience of the sport
2. Technical knowledge

Parent leadership style

a. Controlling style
1. 'Pushy' controlling style
2. Pressure and influence on coach

b. Autonomy supportive style
1. Open communication (Gould *et al*., 2008, + Holt *et al*., 2008)
2. Allow child to earn autonomy (Gould *et al*., 2008)
3. Providing choice (Holt *et al*., 2008)
4. Involving child in decisions (Holt *et al*., 2008)

c. Different parenting styles 'balance out' (+Holt *et al*., 2008)

d. Parents' expertise (also in Holt *et al*., 2008)
1. 'Something to aim for'
2. Knowledge informs criticism
3. Knowledge helps them coach me
4. Naivety

e. Relationship aspects
1. Collaboration with player
2. Empathy and understanding (+ Gould *et al*., 2008; + Holt *et al*., 2008; 2009)

Emotional and affective responses	Coach emotional and affective responses a. Coach propensity for anger 1. Anger over defeats 2. Anger over mistakes b. Positivity and optimism 1. Positive affective style 2. Encouragement after mistakes 3. Congratulating success (Conroy & Coatsworth, 2007) c. Coach tolerance 1) Defeats tolerated 2) Mistakes tolerated	Parents' affective style a. Parent propensity for anger 1. Anger over mistakes 2. Anger over defeats (+Gould *et al*., 2008) b. Tolerance of failures (+Gould *et al*., 2008) c. Pride and positive affect (+Holt *et al*., 2009) d. Emotional intensity of parents (Holt *et al*., 2009) 1. Making it too important (Gould *et al*., 2008)
Pre-performance Motivating behaviours	Coach pre-performance motivating behaviours a. Encouraging effort and mastery 1. Emphasising tasks and roles 2. Emphasising participation and effort 3. Setting personal goals b. Encouraging rivalry and competition (+Bengoechea & Strean, 2007) c. Avoidance and negative approaches 1. Highlighting negative consequences 2. Pessimistic approach to competition 3. Using de-selection as a threat 4. Pressure to work/try harder (+Bengoechea & Strean, 2007) d. Approach-based and positive emphasis 1. Building up confidence 2. Showing pride and belief 3. Highlighting positive possibilities e. Passion and energisation	Parent pre-performance motivating behaviours a. Encouraging effort and mastery 1. 'Everybody contributes' 2. 'Play your own game' 3. Emphasising participation and effort b. Pressurising behaviours (+Reeves *et al*., 2009) 1. Pressure for selection 2. High expectations (+Pummell *et al*., 2008) 3. Discussion of consequences 4. Pressure to perform well (Babkes & Weiss, 1999) c. Building confidence (+Babkes & Weiss, 1999)

Figure 5.3.1 – Motivationally relevant influences shared by all three social agents (top) and by two social agents only (coaches and parents – lower portion). (+) indicates themes replicate other studies. Underscore indicates where relevant themes have been added from other studies.

Coach specific themes

Instruction and pedagogic considerations

a. Equal treatment and perceived fairness
1. Differential treatment
2. Equal opportunities in selection
3. Equality in feedback
4. Perceived unfairness in selection

b. One-to-one coaching

c. Task design
1. Creating competition in practice
2. Variety and fun
3. Tasks focussed on results
4. Giving plenty of time to learn
5. Tasks at optimal level
6. Repetitious drills
7. Playing without learning

d. Selection
1. Competition for places
2. Consistent team selection
3. Selecting on 'form'
4. Squad rotation
5. 'Nobody is secure'
6. Lack of opportunity (Reeves *et al*., 2009)

e. Use of modelling-demonstration
1. Asking me to model
2. Asking other athletes to model
3. Demonstrating techniques
(+Conroy & Coatsworth, 2007)

f. Evaluation criteria
1. Honesty of evaluations
2. Mastery-based evaluations
3. Normative evaluations
4. Fault-finding/scrutinising

Parent specific themes

Parent support and facilitation

a. Material and emotional support
1. Material support
(+Bengoechea & Strean, 2007)
(+Beltman & Volet, 2007)
2. Emotional support (+Holt *et al*., 2008; 2009)
3. Maintaining perspective (Gould *et al*., 2008)

b. Conditionality of support (+Assor *et al*., 2004)
1. Support is conditional
i. Building indebtedness
ii. Stressing 'return for investment (Gould *et al*., 2008)
iii. Using sacrifice as leverage (Gould *et al*., 2008)
2. Support is unconditional
i. "It doesn't matter how you do" (Pummell *et al*., 2008)
ii. Unconditional love/caring (Gould *et al*., 2008)

c. Watching-spectating
1. Watching facilitates feedback
2. Someone to show off to
3. Watching shows commitment

Parent play-and-teach behaviours

a. Over-involved behaviours (+Gould *et al*., 2008)
1. 'Taking the game home'
2. Accepting reflected glory
3. Embarrassing behaviour during competition

b. Instructional behaviours (+Gould *et al*., 2008)
1. Conflicting advice to the coach (+Reeves *et al*., 2009)
2. Reinforcing coach's advice
3. Overloading with advice
4. Shouting instructing during competition (Holt *et al*., 2009)

c. Facilitating practice
1. 'Garden-play' (Informal-fun practice)
(+Bengoechea & Strean, 2007)
(+Babkes & Weiss, 1999)
2. Encouraging practice
i. Reminding / prompting to practice
ii. Parents help to practice (Pummell *et al*., 2008)

Peer specific themes

Peer relationships and social interactions

a. Linking competence to social outcomes
(+Allen, 2003)
(+Vazou *et al*., 2005)

b. Friendship and affiliation
(+Weiss *et al*.,, 1996)
(+Vazou *et al*., 2005)

c. Group identity and perceived belonging
(+Weiss *et al*., 1996)
(+Vazou *et al*., 2005)

Competition amongst peers

a. Boasting (+Vazou *et al*., 2005)

b. Pressurising behaviours
(+Vazou *et al*., 2005 – "Don't want to lose")

c. Leading by example (+Vazou *et al*., 2005)

d. Rivalry and conflict (+Vazou *et al*., 2005)
(+ Weiss *et al*., 1996)

e. 'Positive rivalry' (+Weiss *et al*., 1996)

f. Discriminatory behaviours and decisions
1. Refusing to include certain players
2. 'Glory hunters' exclude other from game (Vazou *et al*., 2005)
3. Unnecessary showing off (Vazou *et al*., 2005)

Peer collaboration and altruistic behaviours

a. Emotional and moral support
1. Intimacy and sharing (Weiss *et al*., 1996)
2. Look out for each other (Vazou *et al*., 2005)
3."My opinion is valued" (Allen, 2003)

b. Emphasising effort (+Vazou *et al*., 2005)

c. Collaborative learning
1. Offering advice-help (+Weiss *et al*., 1996)
2. Withholding advice-help
3. Extra practice in spare time (+Bengoechea & Strean, 2007)

d. Inclusive decisions and behaviours (+Weiss *et al*., 1996)
1. Getting everyone involved (Vazou *et al*., 2005)
2. Work together / play as a team (Vazou *et al*., 2005)

Figure 5.3.2 – Motivationally relevant influences of each social agent in isolation, i.e., not reported regarding the other social agents. (+) indicates themes replicated in other studies. Underscore indicates where relevant themes have been added from other studies.

5.3.1 - Coach, parent and peer commonalities

The concept of 'feedback' or 'evaluative communication' emerged separately in all three dimensions of the analysis (see also Figure 5.3.1). Overall, both coaches and parents were reported to influence the motivation of athletes through either verbal feedback (replicating Conroy & Coatsworth, 2007, Reeves, Nicholls & McKenna, 2008; Holt *et al.*, 2009) or behavioural reinforcement (replicating McCarthy & Jones, 2007; Gould *et al.*, 2008). Verbal feedback could vary in terms of its valence (praise-criticism) and its 'constructiveness'. Positive feedback was generally viewed as producing more adaptive forms of motivation, whereas negative feedback was more likely to undermine motivation, produce frustration, or even undermine the athlete's relationship with the feedback provider. "If you're really upset that you've done badly, and you really want to improve on it, and they just like point it out and make it even worse like, by shouting at you... when you know already" [M-13.10-SOCCER]. In contrast, however, (in a similar vein to the findings of Study 1) negative feedback was reported as also producing an *I'll show him* response, for example: "It's not very nice when they criticise you but that makes you like [think] 'I'm gonna show them that I can actually do that... I'll be better'" [M10D SOCCER ACADEMY].

In terms of the 'implicated conception of the nature of ability', a cluster of ideas were identified relating the Dweck's (1999) model, and the difference between ability being conceived as fixed (entity) or malleable (incremental). Constructive feedback was seen in positive terms, linking with an incremental conception of ability, whereas summative feedback was linked with feelings of frustration and undermined motivation, invoking as it did, an entity conception of ability:

> [Mum]'s like 'no you weren't good enough'... But then I feel like 'well I've tried

> my hardest, and I can't do any better than that'. But then if my dad was there he'd be like 'you did really well in them matches,' like 'concentrate on getting your skills right'. It would make me feel a lot better that he was like trying to help me, rather than just telling me what I'm doing wrong. [F-12.4-HOCKEY]

Coaches and parents were also reported to influence motivation by using behavioural reinforcement (rewards and punishments) in response to performances, outcomes and effort/attitude. For example: "If he like failed they just grounded him and stuff like that.... Like once he just missed out on getting selected but his mum and dad just went mental" [M-12.6-HOCKEY/LACROSSE]. In contrast, parents were also reported to offer 'unconditional praise', which was seen as a positive influence on motivation and the parent-child relationship, for example: "Even when it's obvious that you're not gonna win they say 'Do your best, carry on. Don't give up!" and then afterwards they're like 'Well done! You played really well', so you feel like you haven't done so bad" [F-11.11-SWIM/NETBALL/SKI].

The nature of feedback and evaluative communication in the peer dimension did seem qualitatively different to the coaching and parent dimensions, as it included themes ranging from genuine feedback to momentary displays of frustration or joy. There were two emergent categories: 'immediate reactions to mistakes' could be subdivided into 'anger and criticism' and 'encouragement after mistakes' (e.g., "If I duffed a shot or something, someone would just say 'Hard luck, still try and do it next time but do it better' Instead of just saying 'Oh that was rubbish'" [M-13.0-SOCCER]. The second emergent category was labelled 'verbal commentary' and was further subdivided into 'praise and positive feedback', and 'criticism and negative feedback'. This verbal feedback was evident in both Vazou *et al*. (2005) and Beltman and Volet (2007), and whilst it may differ qualitatively from the feedback offered by coaches and parents

(less formal and authoritative - hence the label 'commentary'), it did involve the verbal expression of evaluative information.

5.3.2 - Coach and parent commonalities

Leadership style: Both coaches and parents shared themes of 'controlling style', 'autonomy supportive style', 'expertise' and 'relationship aspects' – illustrated below and in Figure 5.3.1. Elements of these findings replicate those of Conroy and Coatsworth (2007 – coaches) and Holt *et al.* (2008; 2009 - parents), whilst other themes offer new ideas for consideration.

From both coaches and parents, autonomy support was generally reported as having a positive influence on motivation, whereas 'controlling style' was often reported in relation to feelings of frustration, anger, undermined motivation and even damaging relationships. An autonomy supportive style included showing an interest, listening wherever possible (e.g., "They listen. Like if you've had a bad game, or you want to moan, they actually listen to you and don't just go 'whatever'" [M-13.6-SOCCER]), supporting the child's desires and allowing the athlete to participate in decisions (e.g., "If you've got a party, don't say 'Oh you're not going to the party cos you've got training tonight'. Give them a choice" [F-15-SWIMMING]); whereas controlling style included making autocratic decisions, asserting control with threats/pushing (e.g., "His dad had kept pushing him and pushing him and he got like too hard on him and eventually he dropped out 'cos he was just fed up of it" [M-13.2-RUGBY]), and parents trying to influence selection decisions on behalf of their child (e.g., "Parents asking the manager for them to play, and saying 'Why aren't my kids in the team?'" [M-15.2-RUGBY/SOCCER/ROWING]).

Elements of social motivation were implicated by the emergence of 'relationship with athletes' (with coaches and parents). The importance of the athlete-coach and athlete-parent relationships was highlighted by many participants and is illustrated by quotes such as "When

my father's there... he's the most important person in my life as far as I'm concerned, and when he's there I always play better, I'm always so happy when he's there"[M17.11-RUGBY], and "If you're like inspired by your coach, you want to do it even more; like do it *for* them… But if you've got a horrible coach, you like just don't feel like [doing] what they're saying. [M-12.2-SOCCER/CRICKET]. In addition, the expertise of both coaches and parents seemed to play a role in the motivation of the athlete. This may be important as the specialising career stage is partially characterised by a shift towards specialist coaching (Côté *et al.*, 2003). With specific regard to the parents, 'different parenting styles' suggested that each parent may have different effects on motivation, depending on their relationship with the child, experience of the sport, or affective style, and that this relationship might provide an interpretive context for any parent-athlete interactions (Holt *et al*., 2008).

Emotional and affective responses: These were separated from such themes as 'feedback and evaluation' as they did not always have an evaluative component, but reflected the tendency of the coach/parent to be 'moody' or easily angered. The emergent categories within this dimension included: a) propensity for anger, (e.g., [regarding coach] "You know you've got to perform well otherwise they're gonna like, not be very happy" [M-12.1-BADMINTON]), b) positive affect (e.g., [regarding coach] "It makes the situation more positive so you feel you can play your best... So it is how the coach really puts it, the body language they use as well" [F-14.7-HOCKEY/SOCCER]), and c) 'tolerance' – which was reflected by acceptance, or the absence of a negative reaction to either mistakes or defeats (e.g., "Well my dad, he would never shout, he would just say 'you need to improve…you didn't do this as well today', he would never shout" [M-10B-SOCCER-ACADEMY]). The emotional responses of coaches and parents (real and anticipated) appeared to be a key factor in influencing the participants' motivation. Participants appeared to

pursue positive emotional responses, appreciate tolerance, and try to avoid producing negative responses, such as anger or sadness. The observed and anticipated emotional responses effectively created an emotional climate around sporting involvement, separate from (but inherently related to) ideas of evaluation, approval and supportiveness. Studies by Conroy and Coatsworth (2007), Holt *et al.* (2009) and Gould *et al.* (2008) also allude to these factors.

Pre-performance motivating behaviours: This theme represents the behaviours undertaken in the period immediately before competitive performance with the specific intention of motivating the participants. Both parents and coaches were cited as being able to promote effort/mastery (e.g., [regarding coach] "Before the match they tell you exactly what they want you to do... ...they tell you exactly what you need to do to be better in that position" [M-13.8-SWIM/SOCCER]), pressure/avoidance motivation (e.g., [regarding coach] "They'll say that if you're not doing your best they'll bring you off and replace you… …But sometimes it doesn't work. It puts extra weight on your shoulders." [M-15.2-RUGBY/SOCCER/ROWING]), and confidence/approach motivation. Coaches were cited as being able to promote competitiveness and intra-team rivalry, as well as passion and energy (e.g., "Say when you've got an important match and your coach is like revved up as well then it makes you like wanna try" [M-13.8-SOCCER/CRICKET]). Certain elements of this HOT have been noted in other recent papers (see Figure 1) but overall this theme may represent a potentially novel area for future investigation.

5.3.3 - Coach-specific themes

Instruction and pedagogic considerations: This theme referred to the way the coach goes about the regular duties of coaching, such as teaching, planning and implementing drills, making selections, etc. 'Equal treatment and perceived fairness' was further subdivided into 'equal opportunities in selection' (i.e., allowing genuine competition for places), 'equality in feedback'

(i.e., giving equal time to all players and also being equally positive/negative with all players), 'perceived unfairness in selection' (i.e., always picking 'favourite' players regardless of attendance at training or recent form) and 'differential treatment' (i.e., spending more time or being more friendly with 'favourite' players, asking a team to always pass the ball to one player). 'One-to-one coaching' related to the time spent by coaches giving instruction, attention, evaluation and feedback individually. This coaching behaviour was construed as having a very positive influence on motivation.

'Task design' related to all aspects of the drills and practices that coaches organise during their practice sessions. Fundamentally, the nature of the tasks that the athletes are asked to undertake was reported as having an influence on their motivation. As such, the category was sub-divided into: a) 'creating competitions in practice', b) 'variety and fun', c) 'tasks focusing on results'(e.g., "So you aren't really improving, you're just kind of looking to win the match and that's it... they all want to score goals but when we're under pressure we can't tackle" [M-12B-SOCCER-ACADEMY], d) 'giving time to learn', e) 'tasks at optimal level', f) 'repetitious drills' and g) 'playing without teaching', for example: When like people don't understand like how to play certain sports they don't teach them, they just put them in a low group... ...they [coaches] just can't be bothered to teach. [M-12.6-SOCCER/CRICK/RUGBY]. This theme was reconcilable with the Task criterion of Ames' TARGET, but it would also appear to expand upon it.

'Selection' was subdivided into: a) 'competition for places', b) 'consistent team selection', c) 'selecting on form' (e.g., "Twice in a row I've not been chosen - because like the training before I've not been playing my best" [M-12.11-HOCKEY/SOCCER]), d) 'squad rotation' and e) 'nobody is secure' (e.g., "When they get like a triallist in, you're thinking: 'Is he better than me in my position, am I going to get dropped or something?'" [M-11A-SOCCER-ACADEMY]). The theme of

modelling-demonstration was discussed sufficiently to warrant mention, as it seems that even facilitating improvement/learning in this way could be construed as motivational by some of the athletes – "They actually show you what you have to do, you see them doing it and they tell you how you can do it… so it helps you." [F-11.7-NETBALL/ARCHERY/SWIM].

'Evaluation criteria' emerged as a theme relating to how athletes feel they are evaluated by their coach. Athletes seemed able to infer how they were being evaluated without necessarily receiving feedback, and this was also reported to influence motivation. Coaches who generally emphasised effort, improvement and good skills were inferred to evaluate this way: "Well, when you normally lose a match you might play really good football and they won't criticise you at all if you were the better side" [M-10B-SOCCER-ACADEMY] and "Say if I, our team played really bad but we won, he would be more bothered that we played bad" [M-9A-SOCCER-ACADEMY]. Likewise, it was possible for coaches to evaluate normatively, for example "Sometimes they even tell you like who the best players are, and then the best players are happy, and everyone else wants to catch up to them and do better than them" [M-13.10-SOCCER] and participants also reported being aware of when the coach was 'fault-finding/scrutinising' – looking for problems and weaknesses:

> He was always watching me and he knows everything I do wrong... I'm with him so many times a week, so he knows all my little things and he looks at them to try and make them right... it always makes me cry cos like the pressure's on me [because] he knows I'm gonna do something wrong and he picks up on it and writes it down [F-14.1-FENC/ARCH/TAE-KWON]

The evaluation theme in this study concurs with Ames' suggestions, but equally, it is a little more specific in identifying the evaluation criteria, as set against the feedback or actions resulting from these evaluations, as well as going beyond task versus ego constructs.

5.3.4 - Parent-specific themes

Parent support and facilitation: This theme referred to the supportive role carried out by parents in transporting their children to training and competitions, purchasing equipment, and offering 'moral support' from the sidelines. The theme contained three subcategories. Firstly, 'material and emotional support' (e.g., "She drove me there like every weekend, just for these trials, and I felt like quite proud, because I had a mum who cared about what I did" [F-12.4-HOCKEY]), which replicated findings by Garcia-Bengoechea and Strean (2007) and Beltman and Volet (2007). Secondly, 'unconditional support' (e.g., "Whatever I need she'll go out there and buy me it… she doesn't know what it's for or what it'll do, but she does it because it makes me happy" [M-17.11-RUGBY]), which was also consistent with findings from Assor *et al.*, (2004), Gould *et al.,* (2008), and Pummell, Harwood and Lavallee (2008). Thirdly, the mere act of 'watching-spectating' was also identified as motivationally-relevant (e.g., "Some kids, their parents can't take them cos they don't have the time, so they have to go with other people's parents and it doesn't really feel like they're supporting you" [F-14.1-FENC/ARCH/TAE-KWON]).

Parent play-and-teach behaviours: This higher order theme described the activities and behaviours undertaken by parents aimed at developing or improving the athlete's competence. There were three emergent categories within this theme. 'Over-involved behaviours' was further subdivided into 'taking the game home', 'accepting reflected glory' and 'embarrassing behaviour during competition' and replicated findings by Gould *et al.* (2008). For example: "It's alright if they're there and being supportive, but if they're like shouting at you what to do or like being really over the top, then it gets really wrong" [F-13.5B-TENNIS/SOCCER]. 'Instructional behaviours' were further subdivided into 'conflicting advice to the coach', 'reinforcing coach's advice' and 'overloading with advice'. This category was also replicated in Gould *et al.* (2008) Holt *et al.*

(2009) and Reeves *et al.* (2009). 'Facilitating practice' was further subdivided into 'garden play' and 'encouraging practice' – where 'garden play' can be analogised with free or deliberate play. This category also showed some similarities with Garcia-Bengoechea and Strean (2007), Babkes and Weiss (1999) and Pummell *et al.* (2008).

5.3.5 - Peer-specific themes

Peer relationships and social interactions: The theme referred not only to the quality of relationships, but also seemed to suggest that relationships amongst peers can be used as a commodity to either endorse certain achievement motivations. i.e., the nature and dynamics of these relationships and the processes of their formation were commonly referred to as a mechanism by which affect, cognitions and goal adoptions could be influenced. There were three emergent categories: 'Linking competence to social outcomes' (e.g., "Like if you get on well with them and you like do a really poor performance they like, don't wanna be your friend any more" [M-13.2-ROWING/CRICKET], which was also identified by Allen (2003) and Vazou *et al.* (2005); 'Friendship and affiliation' (e.g., "Good relationships... Like respect each other and like stick up for each other… make sure you all get on, cos if you don't, like, it's not gonna go well." [M-15A-SOCCER-ACADEMY]), which was also identified by Weiss *et al.* (1996) and Vazou *et al.* (2005); and 'Group identity and perceived belonging': "It just makes you want to keep doing that, *for* them, for the rest of the team.... ...you've got another ten people on the pitch with you and you want to keep doing it for them" [M-13.8-SOCCER/CRICKET]. This idea was also compatible with those expressed in Weiss *et al.* (1996) and Vazou *et al.* (2005). 'Peer relationships and social interactions' appeared to be the driving force behind many of the themes observed and consequences reported. For example, the giving and receiving of feedback, the decision concerning whether to help a peer improve (or not), or to be competitive (or not), all seemed to be considered in relation to

social outcomes (e.g., status, belonging, affiliation). This was only partially reflected in themes such as 'linking competence with social outcomes', but the distinctions between 'discriminatory'-versus-'inclusive' playing style, and 'conflictive'-versus-'positive' rivalries also implicate social consequences for competence/achievement-based behaviours. Whilst such a finding is not unique (Skinner & Piek, 2001), it appears to be important and worthy of further investigation.

Competition amongst peers: This theme referred to any and all behaviours relating to competition and normative comparisons and contained many concepts that appear to replicate the findings of Weiss *et al.* (1996) and Vazou *et al.* (2005). Whilst several of the emergent categories could be linked to conflict and negative outcomes, there were themes suggesting positive outcomes, and also suggesting how normative comparisons can be emphasised by a peer group. This higher order theme contained six emergent categories: a) 'boasting' (e.g., "If somebody in the team is showing off and stuff, saying 'I'm the best, I'm better than you….' then you like want to be better than them, you want to beat them [F-13.4-RUNNING/EQUEST]), b) 'pressurising behaviours' (e.g., "If you've got a penalty, and you're the person taking it, and they're putting loads of pressure on you, saying 'oh you've *got* to get it in', it makes you feel like, 'What if I get it wrong?'". [F-13.5B-TENNIS/SOCCER]), c) 'leading by example' (e.g., "I think they help you by being better than you. Because that's showing you that if they can do that then you can do that as well… it makes you think '*I'm* going to do that too'." [F-11.7-NETBALL/ARCHERY/SWIM]), d) 'rivalry and conflict', e) 'positive rivalry' (e.g., "You try and be better than them, and they try and be better than you, and then it makes you be better players because you're always like under pressure, but that's good" [M-12.6-SOCCER/CRICK/RUGBY]), and f) 'discriminatory decisions and behaviours' – which involve actions such as refusing to pass the ball to an individual.

Peer collaboration and altruistic behaviours: This theme referred to all behaviours

involving peers working together or to help each other. As above, this theme contained many similarities with Weiss *et al.* (1996) and Vazou *et al.* (2005), and also Garcia-Bengoechea and Strean (2007). The emergent category 'emotional and moral support' referred to behaviours where peers sought to support each other without necessarily having the aim of improving performance. Examples would include consoling, cheering, distracting someone from nerves, and making pacts to remain friends regardless of who wins. The emergent category 'emphasising effort' referred to behaviours wherein peers de-emphasised results and even performance failures and, instead, encouraged effort and participation. Examples could include such statements as "never mind keep trying" or remaining patient while a peer attempts to master a skill. The theme 'collaborative learning' referred to attempts by peers to teach each other or practice together. Within this theme, four subcategories emerged: a) 'offering help and advice' (e.g., "If you're struggling with a routine or something they will stay and help you, so it's like looking out for each other"[F-12.7-SOCCER]), b) 'withholding help and advice' (negative case) (e.g., "Like if you ask them for help and they just ignore you"[M-13.4-RUGBY]). c) 'extra practice in spare time'(e.g., "We go down to the park, like after and just have a kick around" [M-13.8-SWIM/SOCCER]), and d) 'collaborative playing style' (e.g., "At our county trials.... this girl I knew that I was playing on the same team with, we thought like 'oh we'll play together and get through'... ...like she would always pass to me." [F15-NETBALL/EQUEST]).

5.4 - General discussion

5.4.1 – Overview of findings and implications

This study set out to produce a detailed and integrated description of the motivationally-relevant behaviours of coaches, parents and peers in specialising sport performers. The focus

groups offered pertinent and rich data facilitating a comprehensive understanding of the specific behaviours that social agents may display in influencing the motivation of specialising athletes. As discussed already, there are encouraging similarities with existing research (which largely uses the same population), as well as potential avenues for new research and theoretical discussion throughout the findings. The coaching findings replicate and extend the TARGET framework of Ames (1992) as well as sharing commonalities with other exploratory studies such as Garcia-Bengoechea and Strean (2007), Conroy and Coatsworth (2007), McCarthy and Jones (2007) and Reeves *et al.* (2009). The parent findings show good similarities with the both the coaching findings and also with existing research into parenting styles and influences (e.g., Gurland & Grolnick, 2005; Gould *et al.*, 2008; Holt *et al.*, 2008; 2009). The peer motivational climate suggested many of the same considerations as Allen (2003), Vazou *et al.* (2005), and Weiss *et al.* (1999). The observation of similar behaviours and situations in separate studies offers potential for theoretical convergence.

In comparing the data from this study to those in the previous chapter, which used a similar approach with athletes at the initiation/sampling career stage, a very similar pattern of higher-order themes is apparent. This suggests consistencies between the motivational influences perceived by initiators and specialisers, which is arguably cogent for the following reasons: firstly, the objectives of both stages are comparable (e.g., maintain interest, learn and improve, recreation 'with an eye for potential'). Secondly, the roles performed by coaches and parents are common. Thirdly, the relationship between athletes and the parent/coach is also similar, insofar as coaches and parents remain in a position of authority, responsibility and high esteem during both stages. During the later investment/mastery stage, the emphasis may change to achievement and performance, athletes are likely to be more self-reliant (able to live alone, drive, provide for

themselves) and self-aware, and the relationships may change to become more equal, which might lead us to expect more noticeable differences in the motivational atmosphere that these athletes would report. However, the specialising athletes in this study provided more detailed descriptions within similar themes/categories (perhaps due to increased eloquence and awareness in these older athletes), and also suggested a greater emphasis on skill acquisition, achievement and competition, which would be consistent with advances in career-stage and an increasing focus on skill development (Côté *et al.,* 2003). However, this study does provide detailed and fitting descriptions of the behaviours by which social agents can influence motivation (and the internalisation of extrinsic rewards and delayed gratification); by encouraging continuity between play and work (cf. Côté *et al.*, 2003). Overall, the findings from this study appear highly compatible with Côté *et al.*'s model and may offer additional insights for coaches and practitioners working with specialising athletes.

Like Study 1, the roles performed by social agents, and the manner in which these roles are fulfilled, emerged as the most parsimonious way of organising the analysis. For example, all three social agents produced a theme synonymous with 'feedback', and whilst the content of this was slightly different for peers, there were noticeable similarities between 'coach feedback' and 'parent evaluative behaviour'. Parents and coaches showed the strongest similarities, with 'leadership style', 'evaluative behaviours/feedback', 'emotional and affective responses', and 'pre-performance motivating behaviours' all emerging in both dimensions and showing good consistencies. These similarities are most likely indicative of an overlap in the *types of roles* performed by parents and coaches, in that they may exert similar motivational influences as a result of performing functionally analogous tasks and roles (e.g., support, facilitation, instruction, care-giving). However, where social agents perform unique roles, their influences are unique too;

for example, the manner in which the coach performs the key roles of instruction, selection and management (collaboratively, positively, tolerantly) can all impact upon athlete motivation. In contrast, the role of parents revolves heavily around support and facilitation, and the manner in which this support is provided (unconditionally, positively, collaboratively) also appeared key. The role of peers revolves around friendship, cooperation, and the reinforcement of rules/values amongst the peer group. Once again, the manner in which this role is fulfilled (narcissistically, altruistically, tolerantly) was central in determining athlete motivation. As the athletic career progresses, these roles are likely to change (Cote *et al.,* 2003) and in order to plan successful interventions and build understanding, these changing roles and their integral links to motivational influences must be appraised.

In this study and several others (e.g., Garcia-Bengoechea & Strean, 2007; Study 1), the emergent picture of social and environmental influences on motivation has not been a dichotomy between performance-versus-mastery definitions of competence, or approach-versus-avoidance motivational valences. Instead, a rich plethora of motivational influences has emerged, containing competence *as well as* social goals and autonomy goals, supported and endorsed (or undermined) by key social agents across a variety of contexts and situations.

Another key finding was that individual behaviours (and broader themes) from coaches, parents and peers were rarely associated with a consistent motivational impact. For example, depending on the respondent, the source and the context, criticism was associated with reduced motivation, anger/frustration, avoidance-based motivation, improvement/mastery (or increased effort), and thwarted autonomy. This suggests that the relationship between the behaviours of social agents and their impact on motivation is likely to be moderated by a number of contextual, interpersonal and intrapersonal factors (cf., Elliot, 1999). Thus, in a manner that replicates the

previous chapter, there appeared to be a complex interactivity between motivationally-relevant behaviours and their impact on motivation. To be clear, it was almost impossible to establish any direct and exclusive correspondence between the behaviour of a coach, parent or peer and the impact on athlete motivation. The influence of any single motivationally-relevant behaviour seemed to be moderated by other factors, such as: a) the behaviours immediately preceding the event, b) co-occurring behaviours - e.g., "it's not what you said, it's the way (or moment, or place) you said it", c) the consistency of the behaviour in relation to the person concerned and in comparison to others, d) the relationship between the athlete and protagonist, and e) other contextual or environmental variables (e.g., training vs. competition or stage-of-season). This could be viewed as a first step towards deconstruction of the motivational climate (or "atmosphere"), called for in studies such as Smith *et al.* (2007). Elliot (1999) also speculated: "it is also possible that some of the antecedent variables combine together to jointly and interactively predict achievement goal adoption" (p.176). The closest thing to an exception is the theme of positivity. Ideas surrounding positive feedback, positive affect, positive pre-competition talks (pep-talks), encouragement, collaboration/support, and fun (e.g., in training) permeated the analysis and were quite consistently associated with positive effects on athlete motivation. Among specialising sport performers, where a key aim is to encourage athletes to view deliberate training as more intrinsically rewarding by allowing continuity between play and work (cf., Côté *et al.,* 2003), considerations of positivity should be central even if this is accompanied by a focus on technical proficiency.

The current findings provide evidence that all theories of motivation reviewed in the introduction are relevant to the study of social and motivational influences on motivation. Not only are these various constructs evident, there were suggestions that they may interact, such

that, for example, relatedness might be used to incentivise competence (cf. Wentzel, 1993), or autonomy-support might contribute to an improved relationship (cf. Gurland & Grolnick, 2005). It is possible that with carefully designed research studies, a fuller understanding of the complex interplay of roles performed in supporting competence, relatedness and autonomy needs, as indicated in this study, might begin to emerge.

5.4.2 - Recommendations and implications

The critical-realist approach in the current research cautions against the influence of having a single dominant paradigm or theory driving the developing model of social and environmental influences on motivation. Duda and Whitehead (1998) expressed concerns related to the wide range of questionnaires assessing motivational climate purely from a dichotomous AGT perspective. Hence, the findings of this study may be used to inform a series of broader studies assessing the precise impact of coach, parent and peer behaviours at the immediate situational level of generality, which will arguable help to further understanding beyond the often abstract conceptualisations deployed at the contextual and/or 'perceived contextual' levels (e.g., questionnaire items beginning: "On this team..." and "In my sport..."). Such measures may help to determine the relative importance of each social agent, they may give us the ability to establish which aspects of an intervention are the most influential in effecting motivational outcomes (Smith *et al.*, 2007), and they may enable researchers to compare the observed behaviours of social agents with what the athletes perceive. This work would enable practitioners and researchers to: a) offer appropriate insights into adaptive and maladaptive contextually-relevant behaviours, b) educate coaches and parents about the effective management of peers in their sessions, and c) work directly with specialising athletes on the development of an effective peer-related atmosphere. Hence, from the perspective of applied intervention research, this study

encourages practitioners and academics to devote time to studying themes and behaviours across social agents in a manner that will enhance the content of educational programs. In combination with other studies, this research builds a picture of motivational influences across the developmental trajectory of athletes' careers, which should ultimately enable the design of training environments that encourage enjoyment, participation, persistence and improvement – whether or not athletes progress to the elite level or simply maintain a recreational interest.

6 - Study 3

A qualitative investigation of the socio-environmental influences on motivation in elite sport participants: What (and who) makes elite performers tick?

6.1 – Introduction to the study

Elite athletes train and make tremendous sacrifices, in order to reach the pinnacle of physical condition, technical prowess, and human achievement. The elite athlete's lifestyle arguably requires immense motivation, as even the most talented athletes are unlikely to realise their potential without significant practice and arduous training (Treasure, Lemyre, Kuczka & Standage, 2008). Two key points follow from this introduction: First, we can reasonably assume that elite athletes are highly motivated, over a long period of time, in order to train so frequently and intensely, and second, this motivation can be influenced by the people who surround the athletes on their journeys – their coaches, team-mates and parents. Consequently, the central question in this research became: "What do these key social agents do to influence the motivation of elite athletes?"

As discussed previously (e.g., Section 2.6), the motivational influence exerted by key social agents is often referred to as the *motivational climate* which is a term first coined in achievement goal theory (AGT - Ames, 1992; Nicholls, 1989). Over the last 30 years, a plethora of research has been conducted in an attempt to conceptualise and measure the AGT construct of motivational climate, and the majority of this research has used a) school and university aged athletes, rarely of an elite level; b) Nicholls' (1984; 1989) dichotomous model of achievement goals as its theoretical guide; and c) an exclusive focus on one-or-another social agent (usually the coach) - rarely studying the concurrent influences of coaches, peers and parents (a review of this area is presented in Harwood, Spray & Keegan, 2008). This study sets out to examine the

concurrent influence of these three key social agents (c), at the elite level of sport participation (b), without an *a priori* commitment to AGT, or any other theory of motivational regulation (a).

6.1.1 - Defining elite athletes: The investment-mastery career stage

Following on from previous discussions (2.7, 4.1.1 and 5.1.1) the main models of career progression in sport have been developed by Bloom (1985), Côté, Baker and Abernathy (2003) and Wylleman, Alfermann and Lavallee (2004). In each case, the early career is characterised by participants who are generally prompted to try a number of different sports and see if they either enjoy it or have some talent. This period is termed 'initiation' (Côté *et al*., 2003) or 'sampling' (Wylleman *et al.,* 2004). Following this stage, athletes tend to focus on one or two sports in which they specialise, and seek to learn the key skills, tactics and rules. This period is termed 'specialising' and is characterised by gradual changes from free play and deliberate play towards deliberate practice, from helpful/friendly coaching to specialist coaching, from significant parental involvement towards indirect parental involvement, and from a 'functional' role for peers (providing team-mates and opponents) towards a valuable role supporting athletes' emotional needs. Indeed, the models suggest the influence of parents decreases during the 'mastery' or 'investment' stage, with peers, coaches and (for some) partners being the most influential. For those athletes who do continue into the investment-mastery stage, their 'arrival' is likely to be signified by the completion of all these transitional processes (Côté *et al*., 2003). This 'investment-mastery' stage can begin from approximately 15-years of age, depending on the sport, although 18-19 is proposed to be the average (Wylleman *et al.,* 2004). This stage can be considered to continue until retirement (e.g., Côté et al., 2003), or it can take the performer to a state of 'maintenance' – where key skills are at their pinnacle and the challenge becomes maintaining these skills (e.g., Wylleman *et al.,* 2004). The current paper addresses the 'investment-mastery' stage, encapsulating athletes who have recently entered, or are currently

thriving at, the elite level – competing nationally and internationally.

6.1.2 - Research to date

Motivational climate AGT has been defined in both quite broad terms as the motivational influence exerted by key social agents, and more specifically as the *perceived* structure of the achievement setting established by specific pragmatic situational and contextual cues (Ames, 1992). The emphasis on perceived motivational climate, as opposed to an 'objective' motivational climate arguably evolved, very quietly, as a response to difficulties in measuring social structures and achievement behaviours, and particularly their impact upon an individual's motivation; i.e., it is much easier to model each participant as a single data point and correlate their perceptions on one matter with their perceptions on another, than it is to detect behaviours (and patterns of behaviour) in the environment and assess their impact on the range of people who experienced them. More recently, however, Duda (2001) has called for more concerted attempts to reconcile perceived and objective motivational climates.

In the AGT framework, sport participants' immediate goals for achievement are determined by the interaction of their 'goal orientation' - a combination of relatively stable intrapersonal traits leading to a tendency for individuals towards adopting certain goals (cf. Roberts, 2001), with the situational achievement indices (e.g., the motivational climate). Nicholls' (1989) AGT proposes two types of goals: performance/ego goals emphasise normative evaluations and outperforming others, whilst mastery/task goals emphasise effort, personal improvement and task mastery. As noted earlier (2.6.1, 4.1.2, and 5.1.2), the acronym TARGET was coined to denote teaching/coaching criteria that might be used to promote aspects of task or ego involvement in the performer (NB: mastery-task vs. performance/ego *respectively*): Task (collaborative vs. competitive), Authority (democratic vs. autocratic), Recognition (private and individual vs. public and comparative), Grouping (heterogeneous vs. homogeneous), Evaluation

(mastery-based vs. normative) and Timing ('sufficient-for-learning' vs. 'determined by the more able') (Ames, 1992; Epstein, 1989). In most coaching environments, however, the above behaviours are likely to occur interchangeably, depending on the circumstances, and this has undermined attempts to observe the frequency or impact of these behaviours. Instead, numerous questionnaires have been developed measuring respondents' general perceptions of the achievement goals being endorsed in their team (Harwood *et al.,* 2008; Ntoumanis & Biddle, 1999). This extensive questionnaire-based research has revealed that perceptions of a mastery climate correlate with positive motivational outcomes, whereas perceptions of a performance climate either show no such relationships, or correlate with negative outcomes (e.g. anxiety and tension, or reduced enjoyment). The parsimony of the dichotomous model, combined with abundant and relatively consistent findings have meant that this model has dominated research in the area for nearly 30 years (Harwood *et al.,* 2008)

6.1.3 - The approach-avoidance distinction

Elliot (1999; Conroy, Elliot & Coatsworth, 2008) has critiqued the dichotomous model of achievement goals in two relevant respects. Firstly, the dichotomous model seems to focus exclusively on how competence is demonstrated, neglecting that athletes may sometimes wish to avoid demonstrating incompetence: the "approach-avoidance" distinction (e.g., most questionnaires in AGT refer to definitions of achievement, but not failure). Secondly, research using the dichotomous model has tended to include considerations of self-presentation and social concerns within the measurement of goals, whereas Elliot argued that the achievement goal construct should be specific to considerations of competence alone. These criticisms have led to the proposal of a trichotomous model of achievement goals and, subsequently, a two-by-two model containing mastery-approach, mastery-avoidance, performance-approach and performance-avoidance goals (e.g., Elliot & McGregor, 2001). Moreover, Elliot and colleagues

did not conceptualise a stable intrapersonal goal orientation but rather a comprehensive list of antecedents that can influence the adoption of any of the four proposed goals. One of these antecedents was 'motivational climate' and Elliot (1999) speculated as to some of these environmental determinants of achievement goals and also makes two notable assertions: that "any comprehensive account of motivation in achievement settings will need to consider the important role of social goals" (p. 185) and that "it is also possible that some of the antecedent variables combine together to jointly and interactively predict achievement goal adoption" (p.176). These possibilities are only recently being explored, and such research has not been conducted with elite athletes.

6.1.4 - Beyond competence-based goals

Self-Determination Theory (SDT; Deci & Ryan, 1985, 2000) proposes three basic needs in determining the type of motivation experienced. "Motivation, performance, and development will be maximised within social contexts that provide people the opportunity to satisfy their basic psychological needs for competence, relatedness, and autonomy" (Deci, Vallerand, Pelletier & Ryan, 1991; pp. 327-328 – italics added). *Competence* concerns a need to feel effective in learning/mastering challenging tasks, *autonomy* concerns a need to experience volition and control over one's own actions, and *relatedness* concerns a need to perceive meaningful connections to others and communities (Wilson & Rodgers, 2008). All three of these 'needs' stem from a basic requirement to feel effective in one's environment (Deci & Ryan, 1985). Many dimensions of elite sport are highly public, meaning social evaluation processes and social implications may well be so salient to athletes that their perceptions of physical competence become inseparably linked with these socially-oriented motives (Allen & Hodge, 2006; Stuntz & Weiss, 2002). Allen (2003) and Ullrich-French and Smith (2006) provide evidence of how friendships, the quality of friendships, and perceptions of belonging appear to influence

motivational variables in youth performers.

Perceptions of autonomy-supportive behaviour from sports coaches have been linked to various positive consequences, including increased intrinsic motivation and psychological well-being (Conroy & Coatsworth, 2007; Reinboth, Duda & Ntoumanis, 2004). Vazou, Ntoumanis and Duda (2005) also identified aspects of both relatedness and autonomy support as key facets of the peer-created motivational climate. Such research suggests a requirement to examine social and environmental influences on motivation in relation to all relevant models of motivation, without making any assumptions about which model is most accurate or useful prior to data collection. All the theories described here, as well as their various derivations/combinations, are arguably relevant to the study of social and environmental motivational processes and none of these competing theories should be given precedence over the others – a kind of 'theoretical agnosticism' advocated by Henwood and Pidgeon (2003).

6.1.5 - The challenge of studying elite athletes

Very few studies examining social and environmental influences on motivation have sampled elite athletes, although a recent flurry of studies has bucked this trend (Abrahamsen, Roberts & Pensgaard, 2008; Pensgaard & Roberts, 2002). These studies maintain the paradigm of correlating athletes' perceptions of the AGT motivational climate with other theoretically associated variables, using a Norwegian translation of the original Perceived Motivational Climate in Sport Questionnaire (PMCSQ – Seifriz, Duda & Chi, 1991; translated by Roberts & Ommundsen, 1996). Overall, these studies have demonstrated further associations between perceptions of a mastery climate and positive outcomes, whilst they tended to link perceptions of a performance climate (coupled with either low perceived ability or low task emphasis) with less positive outcomes. A plethora of studies have already made these associations with youth and

collegiate athletes (see Harwood *et al.,* 2008).

Looking beyond AGT, whilst there is a recognised lack of research with elite athletes (Treasure *et al*., 2008), several studies have attempted to examine the motivational climate perceptions of elite athletes. Chantal, Guay, Dobreva-Martinova and Vallerand (1996) used questionnaires to examine the motivational profiles of 98 elite Bulgarian athletes. Their results suggested that theoretically less self-determined forms of motivation (i.e. external inducements/rewards) were associated with better performance – which is a relatively counter-intuitive finding when viewed from a Cognitive Evaluation Theory perspective (CET – Deci & Ryan, 1985). However, one explanation for this finding is that money, status, recognition and lifestyle are all so inherently associated with elite level sport that it is possible these external inducements become 'internalised' by elite athletes, to the extent that they are viewed as quite normal rather than causing the athletes to feel controlled/manipulated. This suggestion was supported by Mallett and Hanrahan (2004), who examined intrapersonal factors motivating elite athletes. The factors identified were reconcilable with the autonomy and relatedness needs denoted by SDT, as well as showing links with AGT. In this analysis, aspects of social status/recognition and money were subsumed into 'ego' goals, whilst feeling in control and enjoyment/excitement were subsumed into 'task' goals. This study also asserted that elite athletes did not perceive the same negative connotations of these extrinsic rewards, whilst adding that, in all likelihood, athletes pursued multiple goals during their participation, ranging from 'love-of-the-game' to money and status. Hence, elite athletes would be able to maintain high levels of motivation and persistence throughout their participation. Nonetheless, external inducements such as money and status have been linked with athlete burnout (Cresswell & Eklund, 2005) and dropout (Pelletier, Fortier, Vallerand & Brière, 2001). In relation to the current study, a key question becomes: How can the key social agents of elite athletes foster and maintain forms of

motivation that are likely to be more adaptive in the long term?

6.1.6 - The critical-realist approach to social and environmental influences on motivation

Whilst the above research suggests it is possible to conceptualise, assess and even intervene with motivational climates at a relatively abstract level-of-generality, recent studies and reviews (e.g., Amorose, 2007) suggest researchers should incorporate more multifaceted and data-driven ("bottom-up" rather than "top down") approaches to progress our understanding. For example, Morgan, Sproule, Weigand and Carpenter (2005) reflected that certain teaching behaviours in their study of school PE would probably have had a much stronger influence on student perceptions than others, but their sophisticated measures could not differentiate this. Similarly, Smith, Smoll and Cumming's (2007) mastery-based intervention study concluded that: "the relative contribution of these [intervention] components to the outcome is unknown at this time. Future dismantling studies may clarify relations between particular intervention elements and various outcome measures" (p. 54). Studies 1 and 2 identified the aspects of coach, parent and peer behaviour that 'initiating' and 'specialising' athletes reported to be motivationally-relevant. However, studies with elite athletes might be expected to produce different indices, as the aims/objectives of participation, relationships with key social agents, frequency and intensity of training, and financial/social rewards are all significantly different from athletes in the investment-mastery stage (Côté et al., 2003; Wylleman *et al.,* 2004). This study set out to examine how athletes in the investment-mastery stage perceive the actions of their coaches, parents and sporting peers to influence their motivation. The information gained was intended to be useful for researchers studying motivation with elite athletes, as well as immediately accessible by coaches, sport psychologists, and team managers.

6.2 - Method

6.2.1 - Participants

The study obtained ethical clearance from the ethics committee of Loughborough University (Appendix A). Five focus groups and 10 interviews were conducted containing 28 sport participants (five females[1] and 24 males), recruited from eight sports (see below) with an age range of 15 years and eight months up to 28 years and six months (Mean = 20 years and three months). Twenty-three of the participants were white European, one white Australian, and five were of African descent (two French-African and three English-African). The participants were recruited opportunistically, either by being approached personally or by writing to their coaches (Appendix C), with parental consent granted for all participants under the age of 18 (Appendix D). All athletes had been participating for more than eight years in their chosen sport. Using the framework of Côté *et al.* (2003) and Wylleman *et al.* (2004), a maximum variability theoretical sample (Lincoln & Guba, 1985) of investment-mastery athletes was sought with the following criteria in mind: 1) career length over eight years, 2) participating in one sport to either national or international level, and 3) high frequency high intensity training, as well as competing. The sample contained one international badminton player, one former European champion archer, five international swimmers attending the Commonwealth and/or Olympic games, two tennis players competing internationally, four premiership footballers (one international), six footballers in the final year of a premiership academy, two women's international footballers, one international martial artist (competing in "Ultimate Fighting Championships"), two county level cricketers, and five under-21 international rugby players.

[1] Fewer females were included as four of the focus groups contained exclusively males, one rugby, two at the Premiership soccer academy and one at a separate Premiership soccer club

6.2.2 – Data collection: Procedure

A mixture of focus groups and interviews was chosen for both practical and theoretical reasons. Elite athletes are a difficult population to access due to their training schedules and travel demands, so where a group of athletes were in the same location and available at the same time, they were interviewed together. These focus groups maximised the experience within each group and, in one instance, helped to meet child-protection considerations. Where athletes were available individually then this opportunity was also taken, not least because interviewing individual athletes provided an opportunity for the fuller exploration of ideas and experiences. Both methods return data of a similar nature, and whilst the focus groups had the benefit of pooling a breadth of experience, interviews facilitated deeper more personal accounts. This pragmatic approach is advocated in several recent papers (Giacobbi, Poczwardowski & Hager, 2005) on the condition that it is exercised cautiously and responsibly. Eight steps, detailed below (Section 2.6.3), were deployed to maximise trustworthiness and credibility in this respect. All interviews took place at the respective training site and lasted 45-65 minutes. Participants took part under their own volition with no incentive offered by the interviewer. All interviews were conducted by the first author. A semi-structured interview guide (adapted from Studies 1 and 2 – Appendix F) was deployed although questions changed as themes developed between interviews. After a brief introduction, the main questions were intended to assess the influences (positive and negative) of coaches, parents and peers on motivated behaviours, including effort, persistence, task choice, focus, and enjoyment (cf. Roberts, 2001). Sample questions included: "What things can your [coach/parents/team-mates] do, or say to make you [want to play sport / want to try hard in your sport / make you enjoy your sport / focus you on learning new skills / help you to keep trying, even when you're struggling]?" The interview finished with some summary questions such as: "If you could write a wish-list saying 'To make me [come back every week /

try my hardest all the time / really enjoy my sport] this is how you should be': What sort of things would go on that list?" and "What are the most important things we've mentioned here today?" The interview proceeded differently every time in response to the discussions and debates between participants. Participants were always encouraged to seek clarification if they were unsure. The sections relating to coaches, parents and peers were asked in a counterbalanced order between interviews to alleviate any effects of fatigue.

Athletes were allowed to respond freely and debates were encouraged when participants had different perspectives. If questions intended for later in the interview were discussed earlier, then this was also permitted. Probes were included to explore or focus on themes and questions of interest that arose during or between interviews. Thus, while the interview was structured, there was flexibility in how questions were asked and followed up, allowing greater depth of exploration and improved rapport (e.g., Appendices G and H_{iii}).

6.2.3 - Data analysis

The process of data analysis occurred alongside data collection, with the interviewer reflecting on participants' responses and sharing these reflections with the co-investigators, often arriving at new themes to explore. During these processes, the data gathered became increasingly focused around emerging themes and questions. The same eight-step procedure adopted in Studies 1 and 2 was implemented to prepare and analyse the data: 1) transcribe interviews verbatim (yielding 252 pages of single spaced text), 2) read and re-read transcripts for familiarisation, 3) divide quotes into those concerning coaches, parents and peers, 4) perform a thorough inductive content analysis, moving recursively between creating tags ("open coding"), creating categories ("focused coding"), and organising categories, using constant comparison and critical reflection to guide analysis (cf. Côté, Salmela, Baria & Russell, 1993) within each

domain using QSR N-Vivo version 7 qualitative analysis software (QSR, 2006), 5) inter-rater checking of the coding in a sample of transcripts (>80% agreement – cf. LeCompte & Goetz, 1982), 6) member checking via both internal (checking understanding during focus groups and returning scripts to ensure statements had not been misrepresented) and external (recruiting a new group of specialising participants to assess/discuss the findings) processes, 7) an iterative consensus validation process was conducted with two members of the research team to ensure the integration of codings into particular categories made the most analytic sense, and 8) a peer debrief (cf. Lincoln & Guba, 1985) was conducted with a further expert researcher throughout as well as in review of the final analysis. This structured use of multiple sources of data, investigators and theoretical viewpoints is proposed to facilitate a triangulation of the subject matter which is less susceptible to individual bias (Biddle *et al.*, 2001). Within the analysis process, all identified codes represented the interpreted meanings of the athletes' responses. Some codes were directly named after the participants' own words, whilst others were named after concepts existing in the literature that were representative. In the latter case, processes of private reflection, consensus validation and peer review were utilised to ensure that these codes and categories were represented in the data and no 'forcing' occurred during the coding (cf. Strauss & Corbin, 1998). The process of constructing emergent categories was assisted by constant comparison procedures (cf. Lincoln & Guba, 1985), wherein initial codes were compared to each other, and then to more focused codes, either being added to them or used to develop new categories. This recursive coding of properties, interactions and contexts/situations was carried out until no new information about a category seemed to emerge (Strauss & Corbin, 1998). The analysis focused on motivationally-relevant influences perceived by the elite athletes (cf. Holt & Dunn, 2004). The most resounding aspect of the data was that the social and environmental influences on athlete motivation were complex and interactive, and this led to an

analysis prioritising breadth over depth – attempting to identify as many contributing variables as possible. In an attempt to demonstrate the transparency and authenticity, numerous quotes are presented and explicit links are made between the interpretive account and the findings of other related studies (Pawson & Tilley, 1997).

6.3 - Results

With a view to highlighting the potential integration of coach, parent and peer influences, Figures 6.3.1 and 6.3.2 were constructed to highlight higher-order themes (HOTs) that showed strong correspondence, and the following section lists congruent themes which related to all three social agents, then themes which showed similarities among any two social agents (coach-peer only, no other commonalities emerged between coaches and parents, or parents and peers), and finally, the themes that appeared unique to one social agent. Where quotations are provided, the participant's reference is given in the form [GENDER-AGE-SPORT].

All 3 social agents	Coach-Parent-Peer			
	Feedback and evaluative behaviours	**Coach Feedback** a. Verbal feedback 1. Valence of feedback i. Positive feedback and praise ii. Negative feedback and criticism iii. Balanced Feedback 2. Timing of feedback 3. Publicity of feedback 4. Personally relevant feedback b. Behavioural reinforcement 1. Effort contingent reinforcement 2. Punishment of mistakes	**Parent evaluative behaviours** a. Verbal feedback 1. Comparative-normative evaluation 2. Negative feedback 3. Praise and encouragement 4. Knowledge-experience 5. Honesty in feedback b. Pride and happiness	**Peer evaluative communication** a. Verbal commentary 1. Praise and positive feedback 2. Constructive advice / criticism 3. Criticism and negative feedback 4. Honesty in feedback 5. Normative comparisons b. Reactions to mistakes 1. Anger and blame 2. Encourage-console 3. Mistakes tolerated
	Pre-performance motivating behaviours	**Coach pre-performance motivating behaviours** a. Approach-based positive motivation 1. Building confidence 2. Emphasising positive goals 3. Highlighting positive consequences b. Competitive motivations 1. Highlighting rivalry 2. Highlighting competition for places c. Encouraging effort-mastery 1. De-emphasising rivalry 2. Focus on technique 3. Clear role to play d. Energising behaviours 1. Motivational videos 2. "Pride in the shirt" e. Pressurising behaviours 1. Highlighting importance of event 2. Pessimism and negative language 3. Scare-tactics and threats 4. "Vital role"	**Parent pre-performance motivating behaviours** a. Approach-based positive motivation 1. Pride in athlete 2. "General" unconditional support b. Emphasising personal performance 1. "Just do your best" 2. Personal goals and focus c. Pressurising behaviours 1. Highlighting importance 2. Highlighting negative consequences	**Peer pre-performance motivating behaviours** a. Challenging each other 1. Collaborative pushing 2. Rivalry/one-up-manship' b. Avoidance-based motivation 1. Highlighting importance . Pessimism and dejection 2 i. In self ii. In team-mates iii. Negative affect and body-language c. Fostering confidence 1. "You can beat this guy" 2. "Welcome back to the team"

Figure 6.3.1a. Integrated representation of the emergent categories and themes in the perceived motivational climate that showed similarities between social agents for elite athletes

	Coaches	Peers
Coaches and Parents	**Coach-athlete relationship aspects** a. Closeness – emotional bond 1. Friendship 2. Mutual respect 3. Understanding / familiarity b. Commitment-dedication 1. Creating opportunities for players 2. "He wants us all to do well" 3. Emotional outbursts show commitment 4. Personal time and effort invested 5. Lack of investment is de-motivating c. "Complementarity" 1. Coaches have to "know their players" 2. Must adapt approach to player 3. Familiarity improves communication	**Peer relationships and social interaction** a. Friendship and affiliation 1. Close friendships 2. Closeness mediates interpretation of criticism 3. 'Tight' feel 4. Closeness reduces rivalry 5. On-pitch partnerships 6. Access to social support through friendships made in sport b. Group membership and belonging 1. Team-ship is motivating 2. Team-ship reduces conflict and rivalry 3. "We look after each other" 4. Lack of team cohesion is detrimental 5. Feeling comfortable improves learning 6 Defending-maintaining team-ship i. "Backs to the wall mentality" ii. Rejecting criticism from 'outsiders' iii. Personal conflicts get in way of good team-ship c. Cultural-historic influences 1. Culture of success-achievement 2. Culture of accountability 3. Culture of improvement and effort d. Competence-relatedness nexus 1. Linking competence with social outcomes i. Better players stick together ii. Normative ability grants social status iii. Must play well to earn respect 2. Separating competence from social outcomes i. Friendships are irrelevant 'on the pitch' ii. Conflicts are irrelevant 'on the pitch' iii. Keeping things separate allows you to 'get on with it'

Figure 6.3.1b. Integrated representation of the emergent categories and themes in the perceived motivational climate that showed similarities between social agents for elite athletes

Themes unique to a single social agent

Instruction and pedagogic considerations

a. Equal treatment and perceived fairness
  1. Differential treatment
  2. Perceived unfairness in selection
  3. Athletes will grow to resent 'favourites'
  4. "Makes me wanna beat 'em"
b. One-to-one coaching
  1. Individual coaching helpful
  2. Personalised goals are better
c. Groupings in practice
d. Task design
  1. 'Positive' rewarding drills
  2. 'Live' competitive practice
  3. Tasks focussed on results
  4. Tasks at optimal level
  5. Tasks perceived to be relevant
e. Selection
  1. Clear hierarchy
  2. Consistent team selection
    i) Reassuring for core players
    ii) Demotivating for fringe players
  3. Competition for places
f. Evaluation criteria
  1. Honesty / transparency of evaluations
  2. Mastery-based evaluations
  3. Normative-comparative evaluations
  4. Fault-finding/scrutinising
  5. Using 'objective' performance data
  6. Individual vs. team evaluation

Coach leadership style

a. Autonomy supportive behaviours
  1. Allowing the athletes to have choices
  2. Collaborative decision style
  3. Empowering athletes with knowledge
  4. Open questioning style
  5. Responsive to athlete input
b. Controlling style

  1. Controlling prescriptive style
  2. Denying choices
c. Coach Accountability
  1. Rational-predictable
  2. Explains selection decisions
  3. Outlines relevance of advice
  4. Match analysis clearly influences next game
  5. Explains key ideas / plans
d. Coach knowledge-experience

  1. Good playing/coaching record
  2. Technical knowledge
  3. Well connected
e. Supporting relatedness amongst athletes
  1. Managing subs-reserves
  2. 'Huddles and high-fives'
  3. Spotting and preventing 'fractures'
f. Coach reflexivity-adaptability
  1. Adapts interpersonal style to each player
  2. Adapts coaching style to stage-of-season
g. Conflicting-inconsistent coaching
  1. Conflict between the coaching staff
  2. Contrasting affective styles
  3. Contrasting values-expectations

Coach emotional and affective responses

a. Coach propensity for anger
  1. Anger over defeats
  2. Anger over mistakes
b. Positivity affective style
  1. Calming influence
  2. Energy-enthusiasm
  3) Coach's motivation transfers to me
c. Coach tolerance

  1) Defeats tolerated
  2) Mistakes part of the process
d. 'Emotional range' of coach
e) Perceived sincerity of emotion

Parent support and facilitation

1. Emotional support
  a) 'Keeping me grounded'
  b) Always 'there'

2. 'Watching-spectating
  a) "I like giving them a good day out"
  b) Travelling long distances
  c) "I want them to see how good I am"
  d) "I don't want them to see me lose"
  e) They only come to watch the big events
  f) Keeping track of my progress

3. Unconditional support
  a) Don't make a big deal of support given
  b) They support every decision I make
  c) 'Distant' support – trying not to get involved

4. Managing career
  a) Pushing/challenging me to go further
  b) Challenging decision to quit

Changing-diminished role

a. Diminished influence
  1) influence is much smaller
  2) Forces me to become self-motivated
  3) Friends share parents' old role
  4) Decreased contact-exposure

b. Changing role
  1) "Eventually I will have to support them"
  2) Shift from 'coach' to 'mentor'

e. Indebtedness – approval seeking
  1) Making them proud
  2) Repaying investment made

Peer influences

Competitive behaviours

a. Boasting

b. Mind-games and psych-outs

c. 'Positive rivalry'
  1) Real competition mixed with humour
  2) Unspoken acceptance
  3) "Fine line"
  4) Pushing-challenging
  5) Impossible without friendship

d. Refusing to help

e. Rivalry and conflict
  1) "Sports-person-ship"
  2) intentionally injuring
  3) Unspoken acceptance
  4) Increases with higher stakes

Complementary behaviours

a. Adapting own behaviour to suit colleague
  1) Adapting game to suit
  2) Respecting pre-match routines
  3) Need to know what buttons to push

b) Emotional support
  1) Being there for each other
  2) Reassuring after poor performance
  3) Obligation undermines effectiveness

Effort-improvement

a. Group promotes improvement
  1) Cohesion regarding improvement
  2) Players drive improvement-reflection

b. Collaborative and co-operation
  1. Collaborative playing style
  2. Collaborative learning
    i) Peer coaching
    ii) Joint goal-setting
    iii) Sharing experiences
    iv) Sacrificing time to help

b. Leading by example
  1) 'Hero'
  2) "Fallen comrade"
  3) Their effort is inspiring

c. 'Policing' effort levels
  1) Low effort is unacceptable
  2) We push each other in every session

Figure 6.3.2 - – Motivationally relevant influences of each social agent in isolation, i.e., not reported regarding the other social agents.

6.3.1 - Coach, parent and peer commonalities

Feedback/evaluative behaviours: The concept of 'feedback' or 'evaluative communication' emerged separately in all three dimensions of the analysis. Whilst in the coaching dimension, a more defined 'feedback' theme emerged (replicating Conroy & Coatsworth, 2007, Reeves, Nicholls & McKenna, 2008), the parent and peer dimensions produced slightly broader themes that were termed 'parent evaluative behaviours' and 'peer evaluative communications' (replicating Vazou *et al*., 2005 and Beltman & Volet, 2007 - see Figure 6.3.1). All 3 social agents were reported to provide verbal feedback, which could be either positive or negative. For example: [regarding coaches] "What helped me was getting a lot of encouragement… like, praising the good things, 'cos you don't really often hear that at this level, it's more 'You need to do this', whereas if they praise you… it's just better" [F-20-SOCCER]. Coaches were reported as providing explicit behavioural reinforcement, such as the punishment of mistakes or rewarding effort (replicating McCarthy & Jones, 2007; Gould *et al.*, 2008 – but these studies used younger populations). However, these behaviours were not reported from parents and peers. Instead, the emotional reactions of parents and peers (pride, anger, happiness) were categorised as a form of feedback in order to reflect that these emotional responses were more frequently in relation to the immediate skill execution or result/performance (whereas the coach themes of 'emotional and affective responses' reflected a general tendency for the coach to be positive, tolerant or 'moody' – see below). An example of 'anger and blame' under the theme 'peer reactions to mistakes' would be as follows:

> At the end of the game [team-mate] come to me in front of everyone… screaming at me "you suck!" And I was shocked. I'm thinking 'Hold on a minute, I never blame anyone. Whatever happens, you don't blame your team-mates. Even if you do blame them you keep it to yourself… And I have to say, the next day… I did

not want to go to training. [M-26A-SOCCER]

The emotional responses of parents were generally more 'distal', occurring over the phone or from the stands. "You can see how much it means to them, when I made my debut for England, I was overwhelmed by it all, but I could see that they were as well and that was such a nice feeling" [F-20-SOCCER]. The specific role of the coach in providing evaluative feedback produced a number of themes regarding how it should be delivered, as well as its content. Players generally preferred constructive or negative comments to be delivered in private (e.g., "He can't just say to you in front of the team 'You're not doing very well'… I'd think he was a ****… but if he pulled me to one side… I'd find myself more motivated to improve that way" [M-19-RUGBY]), and after the competition/performance is over (e.g., "The first goal was my fault… I misjudged the ball…. But the fact that then we're taking the centre (kick-off) and the manager shouts, 'That was your fault' isn't like, very nice" [F-20-SOCCER]). Praise seemed to be appreciated in the vast majority of instances, unless it was perceived as disingenuous.

Pre-performance motivating behaviours: This theme represents the behaviours undertaken in the period immediately before competitive performance with the intention of motivating the athlete. All 3 social agents were cited as being able to promote both positive-approach and pressurising-avoidant types of motivation (see Figure 6.3.1), whilst coaches and parents produced themes of promoting a personal/mastery focus. Coaches were reported to be unique in producing a more competitive emphasis, and also in energising the players, whereas peers provided a unique theme of 'challenging each other' – which could be achieved either collaboratively or through promoting rivalries. A quote exemplifying both ideas is as follows: "Little challenges. 'I'm gonna take more wickets than you' or just having little bets amongst yourselves can be quite motivating… [or] they might say' I've seen you do it in training and I want you to be top drawer today'" [M-20-CRICKET].

6.3.2 - Coach and peer commonalities

Relationships and social interactions: Themes relating to the importance of social relationships emerged in both the coach and peer dimensions, although they were constructed quite differently. 'Coach-athlete relationships aspects' contained themes and categories pertaining to the importance of friendship, dedication, and 'knowing-your-players'. After extensive discussion and reflection, these were labelled 'closeness', 'commitment-dedication' and 'complementarity', respectively, in order to reflect similarities with existing models (Jowett, 2003; Jowett & Cockerill, 2003). An example of closeness would be: "You want to do well for him, as well as for yourself. That's what motivates me sometimes... …If he's very personal with you in training it's more motivating, if he's very impersonal then it's just like, I don't like it" [M-20-SWIMMING]) and examples of commitment would be:

> Positive case: When we scored our last try... I've never seen two coaches actually jump on each other and be so elated. And then from that, to when we'd lost [Coach 1] was just unable to say anything, cos he was just so disappointed. I'm sure it wasn't a tactic of his... It's quite inspiring because he obviously does care [M-20-RUGBY]

> Negative case: What's the worst coach I've ever had? Ones that are just not interested in your game, they're only there because it's their job. Ones that are just there to look after you but they're not really interested. Like, you aren't *their* player. [M-21-TENNIS]

Whilst complementarity is exemplified as follows: "I think a coach has got to know you personally. They need to know whether you take criticism well; whether your head goes down or your head goes up, then they can decide [how to act]" [M-16-BADMINTON], or "You can't coach everybody the same... you've gotta look at what sort of person your player is. Everybody's

different, shouting at one person might be the only way to get through to them, but other people might not like that"

The theme of 'peer relationships and social interaction' was markedly different, reflecting the multiple relationships formed amongst peers and their different natures. The categories within the theme were termed: 1) 'friendship and affiliation' – relating to individual dyadic relationships (also noted by Farrell et al., 2004; Vazou *et al.*, 2005; and Weiss *et al.*, 1996) for example "The people I've met through tennis, the friends I've made, I wouldn't change them for the world. I'm with friends on court, and then going to tournaments is exciting because you're going to see your friends" [M-21-TENNIS]. , 2) 'group membership and belonging' – relating to the athletes relationship with the group as a whole (e.g., "It was amazing... like you think you can swim your best on your own but you can't. Like when you breath you see other people actually living it with you... it actually makes you feel less tired"[F-20-SWIMMING] and "We are a group, no-one walk on us, and no-one should be taking us apart. We stay together. And in this team, this is probably the first time in my whole life where we have this. For me, it's unbelievable."[M-26A-SOCCER]) , 3) 'cultural-historical influences' (e.g., "It's almost an unwritten rule, when you're at [this club] you don't lose... …If you look at who's come through the club… you just want to be a part of it. Why? I don't know. It's just fantastic" [M-21-RUGBY]), and 4) 'the competence-relatedness nexus' – which reflected the tendency to either associate success, selections or competence with social status, or to try and maintain some separation. The roles of captains, non-sporting peers, and romantic partners were all mentioned in passing, but not in enough detail to incorporate into the analysis.

6.3.3 - Coach-specific themes

Instruction and pedagogic considerations: This higher-order theme referred to the way the coach goes about the core duties of coaching; including teaching, planning and implementing

drills, making selections, etc. The higher order theme contained six categories (see Figure 6.3.2). 'One-to-one coaching' related to the time spent by coaches giving instruction, attention, evaluation and feedback individually, and it was generally reported as in positive terms regarding its motivational impact. 'Task design' related to all aspects of the drills and practices that coaches organise during their practice sessions. Fundamentally, the nature of the tasks that athletes are asked to undertake was reported as having an influence on their motivation. As such, the category was sub-divided into: 1) 'positive/rewarding drills' (e.g., "You're kind of looking to gain points, rather than like losing points… as in, you can only score zero and one, then that's automatically gonna have a different effect on you"[F-21-TENNIS]), 2) 'live competitive practice', 3) 'tasks focused on results' (e.g., "There's times when we do focus on specific things, just to win on Saturday... ...we watched a video and just picked out how they played and then training that week just became based around winning that Saturday" [M-20-RUGBY]), 4) 'tasks at optimal level', and 5) 'tasks perceived to be relevant'.

'Selection' emerged as an important category which was subdivided into 1) 'clear hierarchy', 2) 'consistent team selection', and 3) 'competition for places'.

> *Clear hierarchy*: If the gaffer thinks someone's better than you, you can't do anything. All you can do is to put pressure on someone by trying good. If you're trying good and the gaffer realises… then you get a chance to play. And if you play good, fair enough. It's hard to not play… to sit there and watch people play. [M-26A-SOCCER]
>
> *Consistent selection 1*: You get comfortable... you sort of know your positions and it gets a little bit easier I think. [M-26B-SOCCER]
>
> *Consistent selection 2*: This one guy was not performing well and I thought I should have his place. This went on and on and on, so towards the end I was

> starting to think "Is it worth it?" I was going to all this effort to train more than him, to bowl better than him... and it did happen, my motivation did go down. [M-20-CRICKET]
>
> *Competition for places 1*: They can only select one of you, so you just got to try and beat the other man, or be better than him... ...But at the same time you're mates cos you're on the same team. It's hard really. [M-16B-SOCCER(ACADEMY)]
>
> *Competition for places 2*: I ran the bleep test thinking "I *am* gonna get more than she's gonna get. I *want* that place in the team"... ...I want to know what she's just got on the jump or the sprint, so I can get one better... ...and they say to people "She got this, she got that" so I think they do promote a bit of rivalry.[F-20-SOCCER]

'Evaluation criteria' emerged as a theme relating to how athletes feel they are evaluated by their coach and was separated from feedback, wherein the outcome of the evaluation would be communicated to the athlete. Athletes would infer how they were being evaluated without necessarily receiving feedback, and this was also reported to influence motivation. The categories within this theme where labelled 'honesty-transparency', 'mastery-based evaluation', 'normative evaluation', 'fault-finding/scrutinising', 'using objective performance data' (e.g., "When you look back at a video… you forget that you missed that tackle and dropped the ball there. It's really quite funny having a one-to-one with [coach] and you're like 'Um, sorry about that!' [M-21-RUGBY]), and 'individual vs. team evaluation' (e.g., "Kind of very, very impersonal very, just taking the team as a whole and not helping individually" [M-22-CRICKET]).

Leadership style: Coaches were the only social agent reported to influence motivation through their 'leadership style'. 'Autonomy support' was generally reported as having a positive influence on motivation, whereas 'controlling style' was often reported in relation to feelings of

frustration, anger, undermined motivation and even damaging relationships. An autonomy supportive style included allowing the athletes to make choices, collaborating over decisions, 'empowering' the athletes with knowledge, an open questioning style, and being responsive to athlete input (also identified by Kimball, 2007 and Conroy & Coatsworth, 2007). A controlling style included a prescriptive decision style and denying the athletes choices. The category of 'coach accountability' was built around 1) being rational and predictable (e.g., "He was quite predictable, like he didn't make irrational decisions, he was like good with that"[M-19-RUGBY]), 2) explaining selection decisions, 3) outlining the relevance of advice given, 4) fully explaining key ideas and plans, and 5) ensuring that feedback and analysis clearly influences subsequent 'game-plans'. Transparency seemed to be highly valued by athletes, who disliked being "kept in the dark" by coaches (also noted by Kimball, 2007):

> *Explaining selection decisions:* [Coach] was good… at highlighting why you've been picked. Or if you hadn't been picked, why you hadn't… maybe we're playing a different sort of game or different sort of team; he would pick players to suit that team, and he wouldn't just say "You've been dropped" he would say why you're not playing this week, and what you need to work on [M-20-RUGBY]

Players in this study felt it was important for their coach to be either very knowledgeable, highly experienced, or both. Players also spoke favourably of coaches who could behave differently depending on the context or situation, and this was reflected in a theme of 'reflexivity-adaptability'.

> *Reflexivity-adaptability 1:* I think the coach needs to act differently depending what mood the swimmer is in, I think they need to pick up on that pretty early on... [and the athlete's mood]... determines how you treat them in that training session. And it changes daily so they just need to be really aware of their

swimmers and how they're feeling. [F-19-SWIMMING]

Reflexivity-adaptability 2: [On the perfect coach] It's someone that can be able to communicate with anyone; different people on different levels. Like they need to be able to get their message across. [M-18-MMA/UFC]

Reflexivity-adaptability 3: When I'm playing down I don't need a bollocking, cos I know how I'm playing.... But I spoke to Kits and he said sometimes he needs the gaffer to have a go... [Coach]'s really good. He sees people, sees their attitude and realises "this guy needs leaving alone" or "you can't put too much pressure on this guy"... He's really good on it. [M-26A-SOCCER]

In contrast, players were generally unimpressed when members of a coaching team displayed different values or affective styles, or even obvious conflict; for example: "I think the players then realised that actually it's not as great as we all thought. You know. [Coach 1] is very professional whereas [Coach 2] is a bit off-the-cuff at times" [M-20-RUGBY]. Athletes also reported than coaches could support relatedness and team-ship amongst their team/squad.

Emotional and affective responses: This theme was separated from such themes as 'feedback' as it did not always have an evaluative component, but reflected the general affective style of the coach. The emergent categories within this dimension included: a) propensity for anger, (e.g., "If a coach reacts badly to you doing bad… Like if you know your coach is going to absolutely go off on one if you do a bad swim, then you're gonna worry about doing a bad swim" [M-21-SWIMMING]), b) positive affective style (e.g., "We come in at half-time and everyone's shouting. And he'll say calm down, settle down… he talks in a lower tone, he doesn't speak out of emotion, it's quiet you know? He doesn't talk out of anger at all"[M-26B-SOCCER]), and c) 'tolerance' – which was reflected by tolerance, or the absence of a notable reaction, to either mistakes or defeats. Players also discussed the 'emotional range' of their coach as facilitating

successful interactions in a wide variety of situations, and also 'perceived sincerity of emotion' – denoting that they much preferred coaches' emotions to be genuine. The observed and anticipated emotional responses effectively created an emotional climate around sporting involvement, separate from (but inherently related to) ideas of evaluation, approval and supportiveness. Studies by Conroy and Coatsworth (2007), Holt *et al.* (2009) and Gould *et al.* (2008) also allude to these factors.

6.3.4 - Parent-specific themes

Changed and diminished role: This higher order theme emerged from a common response amongst athletes to questions regarding "how do your parents influence your motivation?" to which the answer was often *not very much.* Three key categories emerged, a) 'diminished influence', which reflected the changes associated with emancipation and independence, b) 'changing role', which denoted how parents shift from coach to mentor, and how the power balance shifts such that the athlete may be supporting their family, and c) 'indebtedness', which captured the feeling that athletes wish to repay their parents' investment by making them proud. Whilst this theme rarely addressed specific behaviours of parents in immediately influencing athlete motivation, it was retained in the analysis as it captures important aspects of the transitions faced by athletes entering the investment-mastery stage of their career. It was an interesting theme summarised by the following statements: "I'm not sure they do [influence me] much now. Certainly they're not a big factor. I couldn't pinpoint it to be honest, I don't think it's much; certainly not quantifiable"[M-22-CRICKET] contrasted against: "There's no-one else that could possibly have that effect on you… these people are always gonna be there, they always have, you're not gonna have that relationship with anyone else… something inside that just wants to make them proud"[F-20-SWIMMING].

Parent support and facilitation: This theme referred to the supportive role carried out by parents centring around watching/spectating, emotional support, helping to manage the athlete's career, and maintaining 'unconditional support'. Examples include: 'Keeping me grounded' – "Like being here you're just around swimming and coaches all the time. I think your parents are just, they're just your link back to reality"[F19-SWIMMING], 'unconditional support' – "If I asked him tomorrow, to go down and like throw the ball for like fifty headers, he'd be there without a shadow of a doubt"[F-20-SOCCER].

6.3.5 - Peer-specific themes

Competitive behaviours: This HOT referred to the behaviours exhibited by team mates that tended to contribute to a competitive atmosphere, sometimes verging into rivalry and conflict. The categories within the theme were labelled: a) 'boasting', b) 'mind games and psych-outs' (e.g., "I just go up to them and say 'Oh… you haven't dropped a point yet! You're six points in front of me!" And the next thing, they're eight behind me, and they're thinking: 'I can't believe he got to me!'"[M-28-ARCHERY], c) 'positive rivalry' (e.g., "We get competitive, like 'I bet I could beat you at that… It does help, even in the gym it makes you put on a little bit more" [M-19-RUGBY]), d) 'refusing to help' (e.g., "I don't want to see someone improve more than I'm improving, so… I'm not gonna help someone improve unless I can; unless I'm happy with where I'm at" [F-20-SOCCER]), and e) 'rivalry and conflict' (also noted by Farrell *et al.*, 2004).

Complementary behaviours: This HOT referred to the behaviours exhibited by team mates that were aimed at helping each other to perform or improve. The theme revolved around two basic categories: 'adapting own behaviour to suit colleagues', and 'emotional support'. Examples might include: 'Respecting pre-match routines' – "Like some people sit in the corner and do their own thing; some people bang their heads... and people who bang their heads have gotta realise

they can't go and bang people's heads who are concentrating"[M-20-RUGBY]; and 'Being there for each other' – "He was able to increase my motivation by being like: 'Yeah, you're right, I don't understand why you're not being picked either. You've gotta just keep going, just keep doing it.' I found that really helpful"[M-20-CRICKET].

Effort-improvement: This theme referred to any behaviours that team-mates could exhibit that were perceived to increase motivation. The theme contained four categories, each of which could be further subdivided (see Figure 6.3.2), these were: 'group promotes improvement', 'collaboration and co-operation', 'leading by example', and 'policing effort levels'. Overall, the theme reflected an increased ownership amongst players of their own development, exemplified by the sub-category 'players drive improvement': "I think at this level it's more the players want to be there [training] … they're just motivated to do well. At the level we're playing at, they wanna be better players"[F-21-SOCCER]. 'Collaboration-cooperation' contained both 'collaborative playing style' (e.g., "He's good at beating players one-on-one, but the moves we had weren't using him very well so we changed some of the moves around to try and get him into the game more and try and build his confidence" [M-20-RUGBY]) and 'collaborative learning' (e.g., "We all learn off each other and feed off each other. Some people do some stuff better and some do different bits better, so we all feed off each other and use it, use it to learn"[M-18-MMA/UFC]). The category 'leading by example' referred to when other players can provide motivation simply by doing something notable themselves. This could involve struggling though injury or poor form producing good skills, or exerting a significant individual effort. Athletes also contributed to a category labelled 'policing effort levels', wherein players would push each other, and frown upon lack of effort (e.g., "That's one good thing about our squad is that we're all honest with each other, so if you're slacking any time you'll get told"[M-20B-RUGBY] and "We have this un-stated pact, if one of us did start to fall away, the others would just get on my case and be just

like ‘come on you’re better than this I’ve seen you, I know you can play better than that’.”[M-22-CRICKET]).

6.4 – General discussion

6.4.1 – Overview of findings and implications

This study set out to produce a detailed and integrated description of the motivationally-relevant behaviours of coaches, parents and peers with sport performers at the investment-mastery career stage. Throughout the findings, there were encouraging similarities with existing research as well as potential avenues for new research directions and theoretical discussion. In line with recent studies, the current findings suggest that the socio-environmental influences experienced by elite athletes appear qualitatively different from that of younger or recreational performers (e.g., Studies 1 and 2, Chantal *et al.,* 1996; Mallett & Hanrahan, 2004).

Within the coaching influences, the theme of ‘instructional and pedagogic considerations’ showed consistencies with the ‘task’ and ‘evaluation’ aspects of the TARGET framework (Ames, 1992; Epstein, 1989), although in each case a wider variety of considerations was identified. The theme of ‘coach leadership style’ appears to be consistent with the ‘authority’ criterion, as well as expanding on it significantly. Coach ‘feedback’ and ‘evaluation criteria’ similarly reinforce and expand upon the ‘evaluation’ and ‘recognition’ criteria. In addition, however, ‘emotional and affective responses’ and ‘pre-performance motivating behaviours’ do not readily fit into the TARGET framework but emerged as a relatively important role in the current analysis. The references to autonomy support and 'relationship aspects' regarding the coach are more readily associated with SDT (Deci & Ryan, 2000). In the instances where TARGET structures are endorsed, the current findings do not always correspond with the proposed dichotomies (between ‘task’ and ‘ego’) within each criterion – suggesting a more complex interplay may be unfolding between coaches and their athletes.

The findings regarding the parental influences on motivation were most notable in their differences from research with younger athletes (e.g., Studies 1 and 2). This pattern supports the models proposed by Cote *et al.* (2003) and Wylleman *et al.* (2004), wherein the influence of parents seems to diminish significantly during the investment-mastery years. This was particularly reflected by the theme 'changing-diminished role'. The motivational influence of parents in the investment-mastery career-phase appears to lessen in both magnitude and frequency; with the main sources of influence restricted to travelling to watch, phone conversations, and general emotional and moral support (e.g., keeping athletes 'grounded', and offering unconditional support).

The ways that peers influenced motivation in this study both echoes and extends previous studies (e.g., Study 1; Study 2; Vazou *et al.,* 2005), which examined younger or recreational athletes. While themes concerning 'peer relationships and social interaction' were apparent in all these studies, social consideration between peers appeared to be highly influential in this elite population. Alongside comments by participants that team-mates 'take over' certain key roles from parents, themes of 'friendship and affiliation' and 'group membership and belonging' were quite dominant, and also consistent with Allen (2003) and Ullrich-French and Smith (2006). The linking of social recognition and status with the demonstration of skills and normative competence (Evans & Roberts, 1987; Skinner & Piek, 2001; Urdan & Maehr, 1995) was also evidenced in the 'competence-relatedness' nexus but, equally, some players reported making a conscious effort to maintain a separation between social considerations and performance/competence (a concept relatively unique to this career-stage).

This study can be argued to have advanced understanding in this area for the following reasons. Firstly, this is one of very few studies to have examined socio-motivational influences on motivation within an elite population. Secondly, this study has examined the concurrent

influences of coaches, parents and peers, and as such has allowed an understanding to develop of the similarities, differences, overlaps and complementary aspects of their roles. Thirdly, and perhaps most important, this study has focused on the situational level-of-generality and it has done so without an *a priori* commitment to one or another theory of motivational regulation. Hence, where even the most advanced and carefully thought-out experimental studies in recent years have had to deduce ideas for interventions from (pre-selected) theoretical tenets, Smith et al.'s (2007) intervention being a good example, the findings of this study allow *both* for the deductively minded experimenters to 'cherry-pick' specific motivationally relevant behaviours in designing interventions to test theories, whilst offering the inductively minded experimenters a full array of behavioural interventions to explore and play with. In order for the advancement of knowledge to continue, both these approaches to research are likely to be equally valuable, but in particular research examining the interactive and combinatorial effects of specific behaviours (in determining perceptions and influencing motivation) appears to be advocated by the findings (and experiences) from this study. In effect, this opens up the possibility of every single coach, parent, players and practitioner becoming an active researcher, by engaging in action research to try and create an active awareness of how behaviours (of the self and others) impact upon the athletes they support.

The integrated approach to studying the socio-environmental influences on motivation that was used in this study held the potential benefit of illustrating any interplays and interactions between the influences of social agents. The coach 'supporting relatedness amongst athletes' was one example, whilst the theme 'friends share parents' old role' also captured an element of the changes that occur as players enter the elite level. Overall, however, it was very difficult to detect any instances where social agents explicitly relied on each other's influence. There were, instead, notable parallels between coach, parent and peer dimensions, for example, all three social agents

produced a theme synonymous with 'feedback'. These parallels may point towards an examination of how complementary (or conflicting) different behaviours, and sets of behaviours, are (i.e., *climate strength* as 'consistency' rather than 'magnitude' – Schneider, Salvaggio & Subirats, 2002), which could form an interesting avenue of future research. Coaches, parents and peers all shared influences in the form of their feedback (or evaluative 'behaviour') and their pre-performance behaviours, although this influence was much more frequent and impactful from coaches and peers. Coaches and peers shared an important influence in the form of relationships and social interactions, which seemed to both influence how the behaviours and communications of others are interpreted, and also be a motivational influence in their own right. The apparent importance of these themes and their moderating influence in relation to many other themes (e.g., consider the impact of criticism within a good relationship, as opposed to a poor or distant relationship) suggests they are a central concern for elite athletes, constituting an important aspect of the socio-environmental component of motivation (cf. Allen & Hodge, 2006; Mageau & Vallerand, 2003), rather than considering them as a coincidental factor (cf. Roberts, 2001). Indeed, the current findings suggest not only that all three of the needs suggested within SDT are active in determining the motivation of elite athletes, but also that the supporting of these different needs may interact, such that relatedness-support might be used to incentivise competence (cf. Wentzel, 1993), or autonomy-support might contribute to increased perceptions of relatedness (cf. Amorose & Anderson-Butcher, 2007; Conroy & Coatsworth, 2007).

In comparing the data from this study to those in Chapters 4 and 5, which used a similar approach with athletes at the 'initiation' and 'specialising' career stages, some similarities can be drawn at the level of higher-order themes. Key influences exerted through feedback, emotional responses, coach leadership style, coach pedagogic considerations, peer relationships, peers competitive and peer collaborative behaviours, all appear to be reported throughout the career

span from ‘initiation’ onwards. Some changes are apparent within these themes, which may reflect genuine differences in the mechanisms of influence, but they may also reflect increased self-awareness and eloquence amongst this elite group. These differences were very noticeable with regard to the parent dimension, wherein an integral involvement (e.g., driving to training, buying equipment, facilitating play and practice) seems to diminish during the mastery-investment years, to become a more distant and infrequent influence. In contrast, peer involvement seems to become more integral and influential through the career span, even being reported to ‘take over’ from parents in some key respects (emotional support, friendship etc.). This pattern is consistent both in relation to the three models of athlete career progression under consideration (Bloom, 1985; Côté *et al.*, 2003; Wylleman *et al*., 2004), and also for the following reasons: a) the objectives of the investment-mastery stage are significantly different to the preceding two stages (e.g., generate/maintain interest versus trying to ‘make it’, learn-and-improve versus master-and-compete, and also fun/recreation versus achievement/earning), b) the emancipated, independent athlete is likely to form very different relationships with their coach and their parents – as a result of their increased autonomy and status, and c) elite athletes spend proportionately more time with their peers, extending beyond training/competition to include travelling, rooming, post-event, and attending social events outside of participation. The core consistency across all three career stages is that the motivational influences of social agents can be directly derived from the roles performed by each, and in particular the way in which that role is fulfilled. To an extent, when one considers that on occasion, the definitions of coach, parent, spouse or peer can become quite blurred (e.g., parent-coach, spouse-coach, peer-spouse) it may be more beneficial for researchers and practitioners to begin considering the specific roles that are fulfilled by social agents and the manner in which they are fulfilled, rather than giving primacy to the social agents themselves. An understanding of the basic roles that need to be

performed in sport, as well as an understanding of the ways in which these roles can be performed differently, may be a promising way forwards for this type of research. As such, the key questions become *what* do social agents *do*, *when*, and *how* do they go about it (cf. Smith, 1989)? For example, social-support (material, emotional etc.) and training-instruction could be argued to constitute fundamental roles in sport, and yet depending on the circumstances (career-stage, specific sport, culture) different social agents could fulfil these roles to different degrees and in different ways. Hence, whilst relatively abstract themes relating to the supporting of psychological needs, approach-avoidance motivation, mastery or performance goals can all be observed in the data, analysing 'towards' any of these theories would arguably have undermined the development of a comprehensive understanding. The findings from this critical realist study are likely to be immediately accessible to researchers, practitioners and coaches alike.

A central finding in the current study was that specific behaviours and themes were rarely associated with a consistent motivational impact. For example, depending on the respondent, the source and the context, criticism was associated with reduced motivation, anger/frustration, avoidance-based motivation, improvement/mastery, and thwarted autonomy. Praise could lead to improved motivation and mood, or be seen as disingenuous and be ignored or even questioned as 'mollycoddling'. The relationship between the behaviours of social agents and their impact on motivation is likely to be moderated by a number of contextual and interpersonal factors (cf., Elliot, 1999). In this respect, it may not be possible to offer bottom-line applied advice in terms recommending specific coaching, parenting or peer-group behaviours. Instead, the findings of this research encourage the *reflective application* of themes and ideas by these social agents. With such a comprehensive list of motivationally relevant behaviours, coaches parents and peers are offered a) a range of alternatives to try, should motivating an athlete become a concern they wish to pursue, b) an awareness of the sheer range of behaviours and interactions that are

reported to influence motivation (arguably much broader than that offered by the TARGET framework), and c) an awareness that other co-occurring, preceding and/or follow-up behaviours may moderate the way that a single motivationally relevant behaviour is perceived and so the impact it has (perhaps akin to McGurk & McDonald, 1976). Whilst the current findings facilitate reflective awareness, future research should seek to establish exactly how these behaviours/interactions influence motivation, for better or for worse, the most influential behaviours, or the most important roles or people, and the ways in which specific instances of behaviour combine to influence athlete motivation, i.e., the interactions between behaviours and perceptions.

6.4.2 - Recommendations and implications

The findings of this study may be used to inform future intervention work, and in the design of studies assessing the precise impact of coaches, parents and peers in elite athlete motivation. Such studies may also give us the ability to establish which aspects of an intervention are the most influential in effecting motivational outcomes (Smith *et al.*, 2007), and they may enable researchers to compare the observed behaviours of social agents with what the athletes perceive (Duda, 2001; Morgan *et al.*, 2005). The implications for this paper are the enabling of practitioners and researchers: a) to offer context-specific insights into adaptive and maladaptive motivationally-relevant behaviours, b) to educate coaches about the effective management of peers in their sessions, and/or c) to work directly with elite athletes on the development of effective peer relationships (e.g., What makes a good team-mate? Who makes you want to try hard and improve and why?); even in teams where the sport is not co-dependent or interactive (e.g., athletics, swimming). From the perspective of applied intervention research, this study encourages practitioners and academics to devote time to studying themes and behaviours across social agents in a manner that will enhance the content of educational

programmes. In combination with other studies, this research will build a picture of motivational influences across the developmental trajectory of athletes' careers, which should ultimately enable the design of training environments that encourage enjoyment, participation, persistence and improvement – all of which are likely to be vital for elite athletes to reach and sustain the limits of their potential.

7 - Discussion in the form of a meta-synthesis review

A qualitative synthesis of research into social motivational influences across the athletic career span: The changing influences of coaches, parents and peers in sport

7.1 - Introduction to chapter

Dating back to the ancient Greek philosophers (e.g., Plato) and European introspectivists (e.g., James, 1890), human motivation has been a topic of interest in many subject areas (philosophy, psychology, sociology, physiology), and domains (school, sport, work, exercise, social). This is representative of the key role motivation plays in everyday life: every single behaviour performed (or not) is motivated in some way. Motivation is often confused with ideas concerning energisation or arousal, but it is better understood as a function of the goals, or reasons, behind the motivated activity (Roberts, 2001). In its most parsimonious expression, motivation concerns the why question of behaviour (Deci & Ryan, 2000). Consequently, when studying the social influences on the motivation of athletes, one is examining the reasons behind the motivated actions and the ways in which coaches, parents and peers, for example, can influence these reasons. These three social agents, taken together, are perhaps the most consistent and reliable sources of influence across the vast majority of the athlete's sporting experience. A number of qualitative studies have recently been conducted examining these influences (e.g., Study 1, Study 2, Study 3; Vazou, Ntoumanis & Duda, 2005), and this study is an attempt to reach a synthesis of these papers such that key themes and trends may be identified and drawn out.

7.1.1 - Social influences and the 'perceived motivational climate'

As has been well described by this point (Sections 2.6, 4.1.1, 5.1.2, 6.1.2), the motivational influence exerted by key social agents is often referred to as the *motivational climate* (Ames, 1992a). This ambiguous designation belies the origins of motivational climate research in achievement goal theory (AGT - Nicholls, 1989), wherein sport participants' immediate goals are

hypothesised to be determined by the interaction of their *goal orientation* (a tendency or proneness in individuals towards adopting certain achievement goals; Roberts, 2001), with the situational *goal climate*. The traditional dichotomous achievement goal framework defines these goals, at all three levels (involvement, orientation and climate), in one of two ways: performance/ego goals emphasise normative evaluations of competence and outperforming others; whereas mastery/task goals emphasise effort, personal improvement and task mastery (Nicholls, 1989). AGT permeates the majority of definitions (and findings) within work conducted under the auspices of motivational climate. For example, Vazou *et al.* (2005; p2) define motivational climate as: "students' perceptions of situational structures and expectations that encourage the development of particular goal *orientations by transmitting task and ego involving motivational cues*" [italics added]. However, in the light of work being conducted elsewhere, a more utilitarian definition of motivational climate might be derived by foreshortening this definition to read: "situational structures and expectations that directly or indirectly influence athletes' motivation". This definition removes, at least partially, the association with any theory of achievement goals (and, perhaps rather conveniently, the ongoing debate regarding the type, nature and number of these goals – for examples see: Conroy, Elliot & Coatsworth, 2008; Elliot 1999; Roberts, 2001; Roberts & Walker, in press). This point, however, leads to an important delimiting factor in the current study – the following meta-interpretation study does not speculate on, or pre-emptively endorse, any of the various competing theories of motivation within sport. Rather, it focuses on the specific influences that coaches, parents and peers have on athlete motivation, and examines how they change over the career trajectory from initiation and progressing towards the elite level.

Motivational climate research is traceable to the 1977 Illinois seminar series where AGT was initially conceived (described in Roberts, 2001; p.49). One key outcome of these seminars was the dichotomous model of achievement goals, wherein task and ego goals were conceptualised at the levels of orientation, involvement, and also climate (Nicholls, 1979; 1989).

Ames' subsequent work (Ames, 1984a; b; 1992a; b; Ames, Ames & Felker, 1977; Ames & Archer, 1988) examined the ways in which children's behaviour could be influenced by manipulating certain climate indices, using the acronym TARGET (Epstein, 1989 – described previously in 2.6.2). Extensive research, almost exclusively using questionnaires, has revealed that perceptions of a mastery climate (from coach, parent or peers – rarely have they all been examined together) correlate with many motivationally adaptive outcomes, whereas perceptions of a performance climate either show no such relationships, or correlate with negative outcomes (e.g. anxiety and tension, or reduced enjoyment). For reviews see Duda and Whitehead (1998), Ntoumanis and Biddle (1999) and Harwood, Spray and Keegan (2008). The parsimony of the theory, along with its abundant and (apparently) consistent findings, has meant that the dichotomous achievement goal conceptualisation has dominated motivational climate research for over 20 years. However, several recent studies have questioned whether the complex social milieu that surrounds participation in sport can really be represented by a dichotomous distinction – or whether this is an increasingly limiting, reductionist simplification which might have become a hindrance to the development of understanding in the area (Elliot, 1999; Chapters 4, 5 and 6). Recent studies claiming to use an inductive approach to examine motivational climate have seemed to analyse 'towards' concepts derived from AGT (Krane, Greenleaf & Snow, 1997; Mallett & Hanrahan, 2004; Vazou *et al.,* 2005). On occasion, this paradigmatic dominance (cf. Kuhn, 1962) of AGT appears to have shouted down some potentially rather elegant and interesting findings regarding motivational climate, by either de-emphasising ideas, or forcing the exclusion or reinterpretation of ideas that are not immediately reconcilable with the dichotomous model. For example, in Mallett and Hanrahan's study, financial reward was associated exclusively with an ego climate as a function of status and normative reward, when it could be argued that elite athletes need to be paid in order to give up work and train full time to develop their skills. Krane *et al.* (1997) clustered training-through-injury and issues surrounding body-shape and disordered eating under an ego climate on the grounds that they are maladaptive

behaviours, when (rightly or wrongly) they could be considered to contribute to improved task performance (e.g., judges scores) depending, perhaps, on the level of competition. Vazou *et al.* (2005) subsumed peer relatedness-support and peer autonomy-support into a task climate, when both relatedness (friendship, status) and autonomy (influence, status, self-determination) can be used as commodities to reinforce *both* normative success (or failure) and improvement, effort and skill (or their absence) (Allen, 2003; Evans & Roberts, 1987; Skinner & Piek, 2001, Chapters 4, 5, and 6).

7.1.2 - Review of three recent studies

To a large extent, the decision to conduct the current synthesis study arose from the production of the first three studies in this thesis, examining the social and environmental influences in motivation: Study 1 qualitatively explored the motivational climate perceived by young athletes at the start of their participation in sport ("sampling"), whilst Studies 2 and 3 investigated the same phenomenon in middle-career ("specialising") and elite athletes ("investment"/"mastery") respectively. All three studies examined the ways that athletes perceived their coaches, parents and peers could influence their motivation, positively or negatively.

In all three studies, the influences of social agents were related to the specific roles they fulfil, which varied as the athletes progressed, developed and matured. The analysis indicated that the influences of coaches related most strongly to the manner in which they perform their roles of instruction and assessment, whereas parents' influences were most salient in terms of the way they support participation and learning. Both parents and coaches exerted influences through their leadership styles, affective responses and pre-performance behaviours. In the *initiation/sampling* and *specialising* studies (Chapters 4 and 5, respectively), the influences of coaches and parents were most similar where their roles converged and differed most noticeably where their roles were different. In both studies, peers influenced motivation through competitive behaviours, collaborative behaviours, evaluative communication and through their social

relationships. These similarities were interpreted in terms of the common characteristics between the first two career-stages: the key social agents, their relationships and the achievement contexts remain relatively consistent between the two career stages, with an increasing focus on skill development and fewer sports being the main differences (Côté & Hay, 2002; Wylleman *et al.,* 2004).

The study of elite athletes suggested a markedly decreased influence from parents, becoming increasingly distal and limited to emotional and moral support, whilst coaches and peers were reported to be focal influences. Themes of feedback/evaluation, and pre-performance motivating behaviours were common to all social agents (to a lesser extent with parents), whilst the coach-athlete and peer-athlete relationships appeared to be important in *both* moderating the motivational impact of behaviours *and* directly influencing motivation.

There were several over-arching themes across the three studies: First, a complex interactivity between motivationally-relevant behaviours and their impact on motivation. To be clear, it was almost impossible to establish any direct and exclusive correspondence between the behaviour of a coach, parent or peer and the impact on athlete motivation. The influence of all motivationally-relevant behaviours from these key social agents seemed to be moderated by other factors such as a) the behaviours immediately preceding the event, b) co-occurring behaviours – i.e., *'it's not what you said, it's the way (or moment, or place) you said it'*, c) the consistency of the behaviour in relation to the person concerned and in comparison to others, d) the relationship between the athlete and protagonist, and e) other contextual or environmental variables (e.g., training vs. competition, stage-of-season). This could either be considered as unnecessarily complicated (in comparison to a simple dichotomous model), or it could be viewed as a first step towards deconstruction of the motivational climate, called for in studies such as Smith, Smoll and Cumming (2007), who commented on the need to "clarify relations between particular intervention elements and various outcome measures" (p. 54). Elliot (1999) also speculated: "it is also possible that some of the antecedent variables combine together to jointly

and interactively predict achievement goal adoption" (p.176). Second, as noted above, the roles assigned to each social agent, and the manner in which they are performed, seemed to be the most pertinent way of analysing social motivational influences in sport. Where roles were similar, social agents were reported to influence motivation through very similar means. Where roles differed or diverged, the means-of-influencing athlete motivation became notably different. Hence, the three studies suggest that a deeper understanding of the roles played by people surrounding the athlete – *and* the ways in which these roles are performed/fulfilled – will lead to a vastly improved understanding of motivational climate. Third, the most promising and defensible way of analysing social motivational influences was *not* to analyse towards any single model of achievement motivation, but rather to try and let the data 'speak for itself' using a data-driven approach. This was achieved using processes of private reflection, group reflection, peer review and consensus validation to challenge the influence of existing theories and preconceptions during the analysis (as described in 4.2.3, 5.2.3 and 6.2.3).

7.1.3 - Qualitative research synthesis

Research synthesis is an area of fervent debate within the sport sciences (Biddle, 2006; Biddle, Markland, Gilbourne, Chatziserantis & Sparkes, 2001), but this tension is at its most pronounced in the synthesis of qualitative papers (Weed, 2005; 2006a; b; 2008). Booth (2001) and Sandelowski (2006) proposed that meta-synthesis, "the science of summing up" (cf. Light & Pillemer 1984), can be either quantitative or qualitative, but both criticised a situation of institutionalised quantitativism, leading to the process being almost entirely determined by quantitative methods. Recent experiences of using qualitative methods in examining this phenomenon led to the seeking of a suitable method of qualitative research synthesis.

The main areas of debate in qualitative research synthesis concern: 1) tension between epistemology and sample size, i.e., how important is it to seek a broad and representative sample? (Weed, 2004); 2) secondary (re)interpretation of other authors' original

interpretations/analyses (Rantala & Wellstrom, 2001); 3) attempts to 'correct for' errors/weaknesses in other's work (cf., meta-analysis), versus highlighting and understanding these differences (Weed, 2006a); 4) the tendency for such studies to rely on a very small sample of primary studies (usually 2-5 studies conducted only by a single author or research team - Weed; 2006a); 5) the use of pre-determined exclusion and quality criteria, limiting the influence of flawed/unorthodox but interesting/insightful studies (Boaz, Ashby & Young, 2002); 6) the tendency to drift towards satisfying conceptions of validity and reliability, when many of the contributing studies were conducted from a interpretivist epistemological perspective, and so make no claim to these security blankets (Sparkes, 2002). If, indeed, such studies are obliged towards (or are interested in) meeting some external criteria of research quality (Weed, 2006a), then they should instead seek to demonstrate transparency and, where appropriate, trustworthiness/credibility (Denzin & Lincoln, 1998; Miles & Huberman, 1994). The number and nature of criteria/checks to satisfy tend to co-vary with the ontological/epistemological position of the study.

Weed (2006) proposed a meta-interpretation (MI) methodology, which attempts to address these issues by adapting and borrowing from a variety of other methodologies, including grounded theory (GT), meta-analysis (MA), meta-ethnography (ME) and interpretive phenomenological analysis (IPA). The problem of sample size is addressed using the GT concepts of theoretical sampling, iterative analysis and saturation: permitting that studies by other authors are used so long as they contribute meaningfully to the ongoing analysis, until the point where no new themes/insights are being produced. Whereas GT seems to be restricted to collecting more primary data from the field, the raw data of MI is the outcomes (i.e., interpretations) of other studies; The problem of re-interpreting other researcher's findings is an ongoing problem, with some meta-ethnographers recommending that a 'translation' be undertaken, establishing a common language for the old-and-new studies to be "translated into one another" (Noblit & Hare (1988, p.11), resulting in a "metaphoric reduction" (p.36) towards

more abstract themes. Rist (1990) criticised this as being reductivist and incompatible with the interpretivist epistemology. Another approach is to seek the study's raw data from the original authors and re-interpret it. Aside from (arguably) returning the researchers to square one - dealing with primary data rather than synthesising research in a topic area - this approach has also been criticised, as "the researcher conducting the re-analysis might understand the data differently from its collectors" (Rantala & Wellstrom, 2001, p.88).

MI attempts to resolve this problem by treating the interpretations and findings of previous studies as raw data. Either the original researchers' interpretations must be trusted, or else the study and its findings are excluded from the analysis. This removes the element of re-interpretation, and it is argued (Weed, 2006a) to be no different to the "triple-averaging" (p. 136) processes of meta-analysis; i.e., taking a mean of means of means. One advantage of this is that these raw data are publicly available for open inspection (Doyle, 2003). In removing attempts to correct other researchers' interpretations, the decision about whether to include or exclude each study becomes critical. As outlined above, the raw data of a meta-analysis are the interpretations of previous authors, and so rather than second-guessing these researchers, the meta-interpreteur must make, justify, and record a decision regarding whether the original findings are comprehensible, defensible and trustworthy, before either excluding them (and therefore ignoring) or including them (and therefore accepting the original interpretations and refraining from correcting them). As a result of these processes, the problem of sample size and pre-emptive exclusion criteria are (at least partially) addressed, as the sample size is not necessarily limited to a single research-team and the inclusion-exclusion criteria are determined as a function of ongoing analysis and reflection, in a process mirroring GT's theoretical sampling. Due to its centrality, in resolving a number of the above issues, the inclusion/exclusion process becomes an important aspect of the MI method, which needs to be transparently recorded. This leads to the final consideration; the deployment of trustworthiness/credibility criteria. According to Weed (2006a), the only procedure required in this respect when conducting a MI is an open and

transparent audit trail (Smith, 2003, Yin, 1989). No external validation is sought as the meaning only exists within its specific context (Cushion, 2004; Mishler, 1979).

Processes to ensure rigour are one potential point-of-departure in the current study, which explicitly adopts a critical-realist ontology (Bhaskar; 1975); assuming, or permitting, some kind of detectable consistencies across and between contexts, and effectively "leaving the door open" for commensurability (i.e., should other researchers find consistent ideas/themes). It is equally possible that no such commensurability will ever be achieved, in which case this current study will simply have been an overly-strict MI including, as it did, additional processes or consensus validation, peer debrief and external member checking (by recruiting sport participants and inviting them review and appraise findings). An additional difference between the current study and Weed's original (2006) MI methodology is the decision not to pre-exclude quantitative studies – partly because these dominate research in motivation (Duda & Whitehead, 1998). Hence, an additional step has been introduced into Weed's procedure, involving the assessment of ontological and epistemological assumptions in relation to the type of answers they might provide within the analysis. Such adaptations of methodologies are encouraged by many philosophers-of-science (Feyerabend, 1975; Lakatos, 1970), especially where they are informed by careful consideration of ontological and epistemological assumptions.

7.1.4 – Aims and objectives

As a result of the above-described considerations, this meta-interpretive study set out to address the following four aims: a) creating a synthesis of findings regarding the behaviours, values and interactions that constitute the socio-environmental influences on motivation, b) building an understanding of how these influences change and transform across the athletic career trajectory, c) creating an understanding of the motivationally relevant influences from coaches, parents and peers change across the athletic career, and d) of building towards a coherent model of the socio-environmental influences on motivation in sport.

7.2 - Method

7.2.1 - Sources

The search strategy was an ongoing iterative process, determined in relation to the evolving model, which simultaneously raised new areas for theoretical sampling, as well as stimulating adaptations of the inclusion/exclusion criteria. Each time the (re)engagement of literature was required, searches used the following three sources to locate studies: a) the authors' own knowledge of published research articles, reviews and chapters in the area, b) electronic searches of computerised databases, including Web of Science, SPORTDiscus, PsychLIT, and ScienceDirect (search terms were recorded in the audit trail); and c) citations in papers identified by the electronic searches. The particular searching strategy used depended on the state of the analysis and the ideas/themes being developed. Keyword combinations used included motivat*, climat*, sport, career, transition, athlete, coach*, parent* (stars in these search terms often allow any combination of letters thereafter). One inclusion criterion that was specified before the study was undertaken was that articles must have been published in the English language. For a list of studies that were ultimately included see Table 7.3.1 (a table showing studies that were considered but excluded is available in Appendix J).

7.2.2 - Procedure

An adapted version of Weed's (2006a) meta-interpretation methodology was implemented, for reasons described earlier. Figure 7.2.2, below, outlines the procedure followed. Electronic and hard copies of publications were obtained and assessed for relevance/pertinence (in relation to the current stage of the analysis), methodological transparency, ontological/epistemological position, analytic procedure and availability of findings. Where findings were accessible, relevant (i.e. theoretical sampling) and transparent, studies were retained and their findings contributed themes to the analysis. Studies could contribute raw themes (e.g., findings), structure

(e.g., the career progression and transitions within it), and guidance in proposing relationships/associations. As the analysis progressed, studies were included that elucidated key relationships or indicated the similarity and compatibility of concepts (e.g., 'social support' and 'relationships' emerged to be quite similar ideas but contained different themes. Ongoing engagement with the literature and studies supported this distinction, as well providing sufficient justification to locate them close to each other in the modelling process).

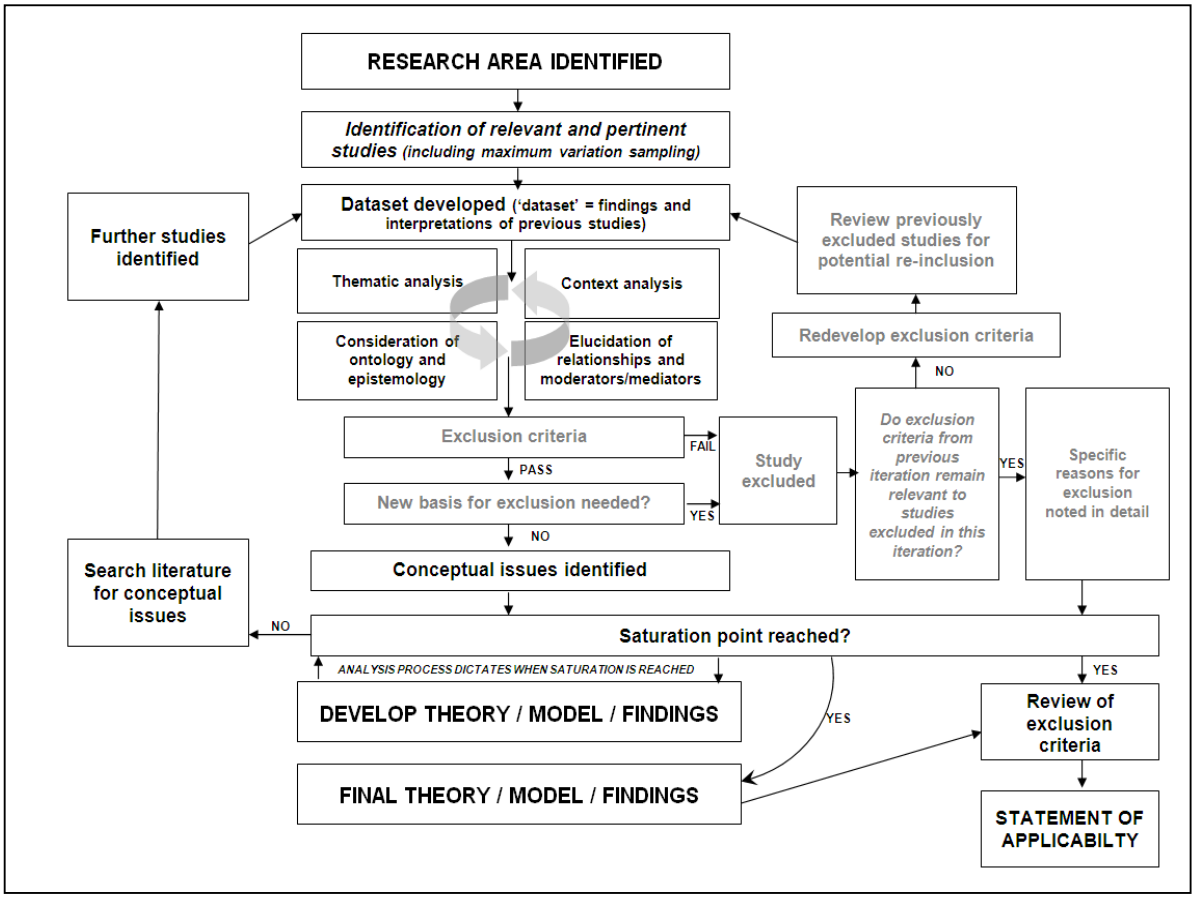


Figure 7.2.2: A schematic representation of the meta-interpretive procedure followed in this synthesis. Adapted from Weed (2006a). Grey indicates inclusion/exclusion criteria activities, black indicates substantive analytic activities.

7.2.3 - Data analysis

The process of data analysis started immediately once the first cohort of studies had been selected. Ongoing reflections, abductive/retroductive inferences and critical discussions took place between the author and various colleagues, arriving at new ideas and themes to explore,

and areas to investigate. The aim of this theoretical sampling, in combination with ongoing analysis, was to "refine ideas, not increase the size of the original sample" (Charmaz, 2000: p.159). As a result, the data gathered became increasingly focused around emerging themes and questions. The following procedures were implemented to maximise transparency and trustworthiness: 1) a clear audit trail was created and rigorously maintained so that colleagues and peers could question analytic decisions and 'follow the workings'; 2) member checking was conducted by presenting and explaining the outcomes to a sample of coaches and athletes and seeking formative feedback. Any responses were recorded and, where appropriate, used to inform the ongoing analysis, 3) an iterative consensus validation process was conducted with two members of the research team to ensure the integration of themes and ideas made the most analytic sense, and 4) a critical peer debrief was conducted in review of the final analysis. This structured use of multiple sources of data, investigators and theoretical viewpoints is proposed to facilitate a triangulated model/theory which is less susceptible to individual bias (Biddle *et al.*, 2001) – although not immune. Within the analysis process, the interpretations and findings of previous research papers were treated as the raw data, and processes of constant comparison, selective/focused/axial coding, memo-writing/diagram drawing, critical reflection (alone or in discussions), theoretical (re)sampling, as well as the constant maintaining and updating of inclusion criteria were all deployed during the analysis. This recursive coding of properties, interactions and contexts/situations was carried out until no new information about a category seemed to emerge (Strauss & Corbin, 1998).

7.3 - Results and Preliminary Discussion

7.3.1 – Included and excluded studies

During the course of the MI, approximately[1] 80 iterations were completed, each time conducting several literature searches and repeating/refining them until no new papers emerged.

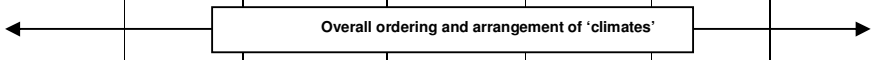
[1] The boundaries between one iteration and the next were not always distinct.

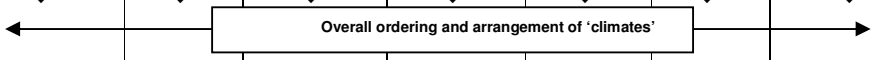
Search results were initially judged on their content by assessing the abstract, after which 124 papers were identified as being of relevance. After assessing the full article content, 45 papers were able to contribute meaningfully to the analysis. Many studies were identified repeatedly, in separate searches, and the applicability was always assessed anew depending on the operative inclusion criteria. To reiterate, the inclusion criteria were constantly evolving during the analytic process. However, their status at the end of the interpretive process can be summarised as follows: 1) *Language* – article must be published in the English language; 2) *Inductive emphasis*$_1$ - articles must contain an inductive component (e.g., inductive qualitative analysis, exploratory factor analysis). Written alternatively, papers that analysed data in a deductive fashion (in relation to one 'preferred' theory at the exclusion of other explanations) were excluded. Ten iterations were undertaken in the early stages of the analysis wherein this rule was not yet in effect. These searches were attempting to define and clarify the vertical structure – explained shortly; 3) *Transparency* – articles must present sufficient and transparent explanations of analytic procedures. The term transparency was also applied to results (which formed the raw data for the current study), such that if a concept/theme was considered a) too abstract or nebulous, b) less applicable to social motivation processes (e.g., intrapersonal themes), or c) considered to be inconsistently coded, then this would result in the exclusion of the theme or (sometimes) the study. This process is arguably comparable to the way in which segments of interview/focus group content are sometimes overlooked if the analyst cannot find a place for them in the analysis; 4) *Relevance* - each paper had to return one-or-more themes relevant to the immediate question being asked by the analysis (e.g., "What concepts/themes might be relevant when considering the influence of [coach/athlete/peers] in the context of [competition/training/evaluation/social-support, etc.] for [sampling/specialising/mastery] athletes?"). The iterative searching and analysing processes ensured the maximum likelihood of relevant papers being uncovered; 5) *Sport specific* - papers examining social motivation in exercise, academic settings, PE and the workplace were excluded *unless* they appeared to

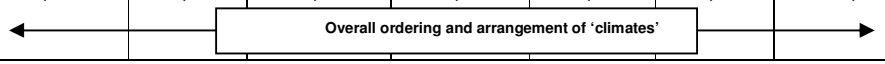
contribute *unique, highly-relevant* content that appeared to be unavailable in sport-specific research; i.e., if the theme(s) possessed strong potential and relevance, a case was considered for the inclusion of the paper. However, a strong preference was created for papers focusing on sport; 6) *Motivation specific* - papers and themes had to explicitly pertain to motivation and social motivational processes. A number of papers relating to anxiety, stress, confidence and other associated themes were excluded; 7) *Social and environmental influences only* - studies examining intrapersonal variables were consistently excluded and, as a result, a rule was quickly introduced to overlook any studies/findings that focused on intra-individual constructs; 8) *Avoid redundancy* - a rule was introduced during the content analysis stage to prevent the replication of themes within career-stages. An example would be the 'information giving' of a coach, which could have been classified with the training climate *or* the social-support climate (e.g., informational support). In this instance, the training classification was preferred. A summary of the studies that were included, and where they contributed content, can be viewed in Table 7.3.1.

Table 7.3.1: Table of studies included in the meta-interpretation, detailing type of study, career-stage, and how contributed (e.g., themes, relationships, and which social agent)

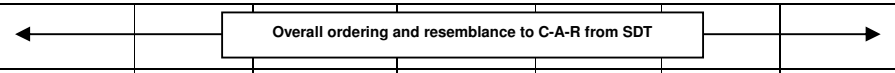
Paper	Sample	Career stage	Horizontal structure	Vertical structure	Social agents	Competition climate	Training Climate	Evaluation climate	Emotional climate	Authority climate	Social Support Climate	Relatedness climate
Côté, Baker and Abernathy (2007)	Review chapter	Init. Spec + Invest.	✔		C, Pa, Pe	✔	✔					
Côté, Baker and Abernathy (2003)	Review chapter	Init. Spec + Invest.	✔		C, Pa, Pe	✔	✔					
Côté and Hay (2002b)	Review chapter	Init. + Spec	✔		Pa						✔	
Côté (1999)	4 families of elite athletes	Init. Spec + Invest.	✔		Pa	✔	✔				✔	
Côté (2002)	Review chapter	Init. + Spec	✔		C, Pe	✔	✔					✔
Côté and Hay (2002a)	Review chapter	Init. Spec + Invest.	✔		C, Pa, Pe	✔	✔					
Strachan. Côté and Deakin (2009)	40 “spec” + 34 “init”	Init. + Spec	✔		C, Pe		✔	✔	✔	✔	✔	✔
Wylleman, Alferman and Lavallee (2004)	Review article	Properties of **transitions**	✔		N/A							
Pummell, Harwood and Lavallee (2008)	10 equestrians in spec-invest transition	Spec. + Invest.	✔		C, Pa, Pe		✔				✔	✔
Bruner, Muroe-Chandler and Spink (2008)	8 ice-hockey players transitioning from spec. to invest.	Spec. + Invest.	✔		C, Pe		✔	✔			✔	✔
Study 1 – this thesis	40 “initiators”	Init.	✔	✔	C, Pa, Pe	✔	✔	✔	✔	✔	✔	✔
Study 2 – this thesis	79 “specialisers”	Spec.	✔	✔	C, Pa, Pe	✔	✔	✔	✔	✔	✔	✔
Study 3 – this thesis	29 “investment-mastery”	Invest.	✔	✔	C, Pa, Pe	✔	✔	✔	✔	✔	✔	✔

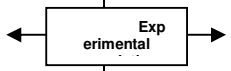


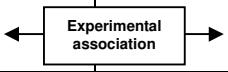


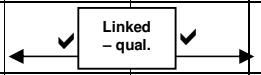


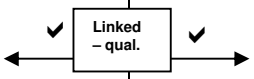
Hollembeak and Amorose (2005)	280 collegiate athletes	N/A		✔	N/A							
Amorose and Weiss (1998)	60 young athletes on a summer sports camp	Init. + Spec.		✔								
Amorose and Horn (2000)		N/A		✔								
Holt, Tamminen, Black, Sehn and Wall (2008)	4 families of youth athletes	Spec.		✔								
Holt, Tamminen, Black, Mandigo & Fox (2009)	56 parents + 34 female children	Spec.		✔	Pa.		✔	✔	✔	✔		
Reeves, Nicholls and McKenna (2009)	40 male academy soccer players	Spec/Invest		✔	C, Pa			✔				
Loughhead and Hardy (2005)	238 Canadian athletes	Spec. + Recreational		✔								
Adie, Duda and Ntoumanis (2008)	539 athletes	N/A		✔								
Assor, Roth and Deci (2004)	124 Mother-daughter pairings	Academic and general		✔	Pa							
Ntoumanis and Biddle (1998)	356 university athletes	N/A		✔	N/A							
Ullrich-French and Smith (2006)	186 youth soccer players	N/A		✔	Pa, Pe							
Jackson, Knapp and Beauchamp (2008)	6 pairs of elite athletes	Invest.		✔	Pe			✔				✔
Rees & Hardy (2000)	10 elite athletes	Invest.			N/A	✔					✔	✔
Rees & Hardy (2004)	130 'high level' tennis players				N/A	✔					✔	✔
Rees, Hardy & Evans (2007)	320 collegiate athletes	N/A			N/A	✔					✔	✔
Farrell, Crocker, McDonough & Sedgwick (2004)	38 Special Olympians	Invest			C, Pe						✔	✔
Gould, Lauer, Rolo, Jannes and Pennisi (2008)	24 coaches of junior tennis players	Spec.			Pa.	✔	✔	✔	✔	✔	✔	

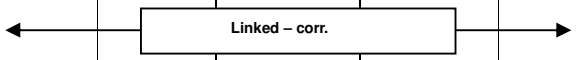


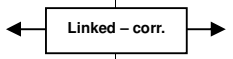


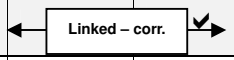


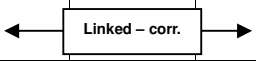


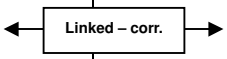


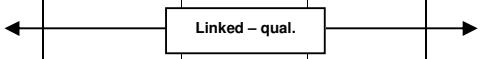












Babkes and Weiss (1999)	227 young athletes and 283 parents	Init. + Spec.			Pa.	✔	✔		✔			
LaVoi and Babkes-Stellino (2008)	259 youth hockey players	Init. + Spec			Pa.	✔	✔		✔			
Beltman and Volet (2007) ("sustained motivation")	30 Australian athletes + musicians	Spec.			Pa, Pe.			✔		✔	✔	
Conroy and Coatsworth (2007a)	165 young athletes	Init. + Spec.			C		✔	✔	✔	✔		
Conroy and Coatsworth (2007b)	165 young athletes	Init. + Spec.			C					✔		✔
Reimboth, Duda & Ntoumanis (2004)	265 adolescent athletes	Spec.			C					✔		
Assor, Kaplan and Roth (2002)	862 Israeli school children	Academic and general			C (Teacher)					✔		
Kimball (2008)	12 collegiate athletes	Invest.			C, Pe					✔		✔
McCarthy and Jones (2007)	25 sampling / initiation athletes	Init. + Spec.			C, Pa, Pe		✔	✔	✔		✔	✔
Allen (2003)	100 adolescent females	Spec.			Pe.						✔	✔
Garcia-Bengoechea and Strean (2007)	12 adolescent athletes	Spec.			C, Pa, Pe	✔	✔			✔	✔	
Reeve, Jang, Hardre and Omura (2002)	141 college students	"Uninteresting activity"			C					✔		
Spray, Wang, Biddle and Chatziarantis (2006)	147 secondary school students	Putting task			C					✔		
Vazou, Ntoumanis and Duda (2005)	30 young adolescent athletes	(Init.) + Spec.			Pe.	✔	✔	✔	✔	✔	✔	✔
Weiss, Smith and Theeboom (1996)	38 sport program participants	Init. + Spec.			Pe.		✔		✔		✔	✔

7.3.2 - Statement of applicability

A review of the above exclusion/inclusion criteria leads to the following statement of applicability:

This study and its findings relate to the motivationally-relevant interpersonal processes occurring between athletes and their coach(es), parents, and peers in the sporting context. It is based upon research written in English. Every effort has been made to reduce the impact of pre-existing theories in influencing the analytic process. This study presents a framework/model of motivational processes that is intended to stimulate thinking in the area and contribute ideas. The model(s) are not intended to present an explanatory/predictive theory in their current state. Intrapersonal variables are not included in this analysis.

7.3.3 - Horizontal structure

The construction of a horizontal structure was undertaken in order to assess and establish the divisions between career stages. The papers that contributed to this structure included: 1) Bloom (1985), 2) Bruner, Munroe-Chandler and Spink (2008), 3+4) Côté (1999; 2002), 5+6) Côté & Hay (2002a; b), 7+8) Côté, *et al.* (2003; 2007), 9) Pummell, Harwood and Lavallee (2008), 10) Strachan, Côté and Deakin (2009) and 11) Wylleman *et al.* (2004). The main aim of this stage was to construct a simple conceptual framework of the athletic career and establish the characteristics of each career-stage. This task allowed for new studies/themes entering the analysis to be classified according to which career-stage(s) they examined. Hence, three separate meta-interpretative processes were initially set up, one for each career-stage. The joint consideration of these career-stages formed the skeleton across which the analysis could be draped (Table 7.3.2, below). Once new studies had been assessed against the inclusion criteria,

raw themes were harvested and slotted into the appropriate career stage, prior to be being content analysed. This led to the development and maintenance of three pivot tables (Appendix I) wherein themes were captured, stored, organised and analysed.

Table 7.3.2: The 'horizontal' structure of the study and the criteria deployed in trying to reconcile study populations or findings with a particular career stage. Numbers in second column correspond to the numbering in the text.

Characteristic	Studies contributing	"Initiation-sampling"	Specialising	"Investment-mastery"
Approximate ages	1, 3, 5, 11	4-12 years, 8-9 is characteristic	11-18 years old, 12-13 is characteristic	15-30 (18-21 is characteristic)
Number of sports	1, 3	Many / diverse	Decreasing / one	One
Deliberate play	7, 8	High	Decreasing	Low
Deliberate practice	7, 8	Low	Increasing	High
Nature of involvement / degree of organisation	1, 7, 8, 10	Play and fun Task-focused learning	Increasing structure (usually quite organised) Entry into competitions	Organised games and competitions
Role of Coach	2, 7, 10	Helpful / friendly coach Sometimes coach is not trained	Changing Sometimes transitioning to trained coaches	Specialist coach
Role of Parents	6, 7, 9	Significant parental involvement Instrumental + material support Socialising into sport	Changing →	Indirect parental involvement (e.g., spectator) May still offer some financial/emotional support
Role of Peers	2, 4, 7, 10	'Functional' role for peers	Changing →	Valuable role supporting emotional needs
Aims of stage	2, 8	1) See if you like it 2) See if child possesses any skill / potential	Develop skills and learn tactics / rules Develop fitness and physical attributes	Pursue perfection and success. Maintain those skills which are well-learned
Nature of transition	9, 11	Relatively seamless – seems to go un-noticed. May accompany switch to secondary schooling	Often quite difficult and marked by significant changes (leaning home, changing coach/team)	Transition into retirement may be a source of great stress and turmoil for some athletes.

7.3.4 - Vertical structure

The second stage of the analysis involved collecting a broad range of studies known to identify social motivational considerations in the sporting context, and then establishing potential higher-order categories that might serve to capture and differentiate the numerous themes that were emerging. This stage was approached using maximum-variability sampling. The categories that emerged were tentatively entitled: 'performance context', 'training climate', 'evaluation criteria', 'emotion and affect', 'leadership and authority'; 'social support' and 'relationships/social bonds'. These labels changed and evolved during the analytic process. In an attempt to check and clarify these distinctions, an extra stage of MI was created. Ten iterations of the process were devoted to building an understanding of their similarities, differences, and correlations/relationships. At the end of this process the analyst was satisfied that the seven categories were different in important ways (e.g., minimising redundancy), and yet were sufficiently varied to capture the numerous themes being returned by the searching. The specific ordering of the vertical structure was informed by an ongoing process of trial-and-error, critical reflection and re-engagement with studies until an arrangement was chosen with sporting-involvement and competence pursuits at one end, and social support and affiliation pursuits at the other. However, every effort was made to ensure that any deductive influence was minimised, and several other versions were trialled at different points. Conceptual coherence and feelings of rightness played a significant role in deciding between the various potential arrangements.

7.3.4.1 - Competition climate was the term used to capture the behaviours of social agents during, and immediately before, athletes' engagement in competitive performances (events, matches, games, etc.). Examples include the 'pre-performance motivating behaviours' specified in all three main studies of this thesis (e.g., emphasising effort, winning, not losing, achievement

etc.), as well as the playing style of teams engaged in co-active/interactive sports (inclusive vs. discriminatory). Coaches were sometimes cited as exhibiting and conveying passion and energy, whilst peers (opponents and team-mates) were noted by the investment athletes to engage in mind games and psych-outs.

7.3.4.2 - Training climate referred to the situations in which training and learning occurred, as had originally been termed 'pedagogical considerations' in Study 1. However, the term was amended to permit peer and parent influences to be captured, in addition to the more obvious coaching component. The element of learning was chiefly addressed by the way the coach organised and delivered training, but also encompassed parent influences (for initiators and specialisers) and peer influences (for specialisers and investment-mastery athletes). Training climate included the ways that effort and improvement are emphasised in training, as well as competition and rivalry (including 'positive rivalry'). 'Selection' was also included under this climate, as it referred to an organisational element of the coach's role and frequently occurred outside of the performance/competition context.

7.3.4.3 - Evaluation climate referred to the ways in which performance is assessed and feedback is provided. Whilst evaluation can occur within both training and competition, it was drawn into a separate theme as it could also occur outside training/competition, and these aspects of sport could, in theory at least, occur without any formal evaluation taking place (e.g., play and fun, especially concerning career-initiators). This climate contained references to: a) 'evaluation criteria' – the ways in which athletes believe/infer that they are being assessed (normative, mastery, effort/attitude, fault-finding), b) verbal feedback – the relatively explicit evaluative communications of coaches, parents and peers, including criticism and praise and also referring to considerations such as timing, publicity (public vs. private), and personal relevance of

feedback, and c) 'behavioural reinforcement' – the punishment or rewarding of outcomes, effort, moral behaviour etc., almost exclusively driven by coaches and parents (only coaches at the elite level).

7.3.4.4 - Emotional climate (cf. Darling & Steinberg, 1993) was the term used to capture the emotional and affective displays of key social agents. It was maintained as a separate entity from evaluation climate, because whilst emotions can be displayed in evaluating performance, they can also occur in relation to issues surrounding authority, relationships, or general affective style (e.g., a generally moody, easily angered coach). As such, this rather broad and global construct was situated in the middle of the 'climates spectrum': being just as relevant to competitive and performance as it was to social relationships and group dynamics. It was broadly broken down into positive reactions, tolerant reactions and negative reactions, with athletes also referring to 'emotional intensity' of the protagonist, as well as the 'emotional range' of the coach – reflecting the ability to be calm, passionate, or measured in relation to the moment and situational demands.

7.3.4.5 - Authority climate captured the repeated references to 'leadership style' in the various studies reviewed, but the specific reference to 'leadership' was gradually questioned and dropped on the grounds that it contains connotations of leadership from within, as well as from the front. Instead the term 'authority' was chosen to reflect that this climate is driven by the manner in which those in positions of authority/responsibility (mainly coaches and parents) fulfil this role. It should be contrasted with autonomy-support, which was referenced throughout and could be supported (or undermined) by any social agent. Hence, to be clear, autonomy-supportive behaviours were evident across all seven climates mentioned herein, but the authority climate refers specifically to the way those in authority deploy that power. To a large extent, this

precluded the contribution of peers to this climate, as peers are very rarely placed in positions of authority over each other. Coaches and parents appeared to dominate, but the influence of parents reduces significantly between the specialisation and investment-mastery stages.

7.3.4.6 - The social support climate contained all the numerous behaviours of social agents that contribute directly and indirectly to the athlete's participation in, enjoyment of, success at, and benefit from sport. Social support is notoriously difficult to define (Bianco & Eklund, 2001), but key dimensions of social support are: emotional support (e.g., comfort, validation, there for you), informational support (e.g., advice and guidance), tangible (material/instrumental) support (e.g., concrete instrumental assistance such as purchasing equipment and providing transport) and esteem support (bolstering self-confidence and providing reassurance – Rees & Hardy, 2004). Parents and peers were found to offer substantial emotional support throughout the career, and this was frequently cited in relation to motivation. Even in this climate, however, the parent influence appeared to be reduced upon entry into the investment-mastery stage. During initiation-sampling and specialisation, parents provided extensive material support, as defined above, but this was reduced once athletes became independent (around the time of entry into investment-mastery). The presence of, severity of, and resolution of conflict between peers was included, in relation to emotional support and esteem support. Whilst the coach undeniably offers tremendous informational support in the form of advice and instruction, this was included under the training climate and so was not listed here in order to avoid duplication.

7.3.4.7 - Relatedness climate was kept distinct from social support, because it could be viewed as extending beyond ideas of informational support, material support, and perhaps even the emotional support aspect (i.e., consoling or confiding does not necessarily lead to – or derive from – friendships, affiliation or group membership). *Relatedness climate* referred to all the

elements of sport participation associated with seeking *both* friendship/affiliation *and* group membership/belonging. These two concepts were evident in all three career stages, along with the idea of a 'competence-relatedness nexus' – an inherent link between levels of athletic competence shown and making/losing friends or acceptance into the group (cf. Evans & Roberts, 1987). This link could either be fostered by effectively making friendships/acceptance contingent upon competence, or it could be de-emphasised by separating friendships/acceptance from what happens 'on the pitch'. Such separation appeared more likely in elite performers who viewed their performances, in quite a professional way, as unrelated to who they befriend; whereas the link was rather immediate for younger athletes. At the investment-mastery stage, peers were sometimes described as maintaining a cultural-historical feeling of privilege regarding certain teams/clubs (e.g., "it means a lot to put on this shirt"). Also at the investment-mastery stage, the relationship with the coach emerged quite strongly as a motivational influence, needing to be friendly/close, dedicated, and complementary (on the same wavelength) in order to present optimal conditions for athlete motivation. This relationship, however, also appears to be a conduit through which many other coaching behaviours are viewed and interpreted. Praise from a coach who is close might be praise indeed; whereas praise from an aloof, disliked coach might be viewed as controlling, sarcastic or empty. This aspect of the coach-athlete relationship was very difficult to detect in the initiators and specialisers.

7.3.5 - Population of the model

The establishment of horizontal and vertical frameworks suggested 63 categories to be searched and populated [Horizontal (3) x Vertical (7) x Social Agent (3)]. In each case, a thorough search of the literature was conducted, and where papers were identified they were

assessed for relevance in relation to the evolving inclusion criteria. Themes were then drawn from the included papers and placed into one of the three respective frameworks (initiation, specialisation or investment), before being content analysed. This process created three 'pivot tables', which are available in Appendix I. These tables are too large for inclusion in the main document, but formed an important part of the analysis.

7.3.6 - Comparison between career-stages

In order to facilitate a comparison between career stages, Figure 7.3.6.1 (below) was constructed, and populated with second-order themes from the three pivot tables. Ideographic proportion bars were added in an attempt to represent the relative influence of the three social agents in each category. These *judgements* were informed by the author's experiences in the collection of primary data in the area, the conduction of the current analysis, and member checking. However, it must be noted that these are only ideographic estimates and are not intended to be treated as quantitative data. Comparing across Figure 7.3.6.1 horizontally permits a preliminary comparison of the changes that occur across the career span, both in terms of the relative influence of social agents, and also the types of behaviours that are reported to be relevant in each career stage. In the competition climate, coaches and parents appeared to dominate in the initiation phase, with the peer and coach influences gradually increasing at the apparent expense of parents'. A similar pattern emerges for the training climate, except that the coach appeared to be more influential than parents at the initiation stage. In this instance, the increased relative influence of peers across the career span comes at the expense of both parents and coaches. The evaluation climate follows a very similar pattern to the competition climate, as does the emotional climate. Coaches and parents dominate to begin with, but coaches and peers

dominate once the investment-mastery stage is reached. In the authority climate, coaches and parents once again appear to be equally influential in the initiation stage, but rather than the peer influence growing, the coach influence is proposed to grow rather noticeably, as the coach becomes the only social agent remaining (of those studied here) in a position of genuine authority. Regarding social support, parents appear to have their strongest influence in this capacity; dominating the themes (and therefore the proportion bars) in both initiators and specialising stages. Once again, however, peers and, to a lesser extent, the coach take over this role in the investment-mastery stage. Finally, in the relatedness climate, peers appear to play an important role throughout the career, whereas the relative influence of coaches gradually grows during career development, and the influence of parents appears to be at its height during childhood/initiation, and quite diminished by the investment-stage. This might be taken to suggest that either the parent-child relationship is less emphasised by athletes or, more likely; it remained unspoken in many of the studies examined here. The relatedness climate is likely to vary significantly between team and individual sports.

The penultimate step in the current analysis was the tracking of the total relative influence across the career span, which was completed by manipulating the ideographic proportion bars in the process highlighted in Figure 7.3.6.2. This analysis suggests that coaches and parents are most influential during the initiation-sampling phase, whilst the influence of parents decreases slightly during the specialising phase, and then markedly around the transition into investment-mastery. Coach motivational influences appear to increase slightly across the athletic career, whist peer influences appear to increase almost exponentially. Both these changes seem to occur as the roles of parents are taken over by coaches and peers (see Study 3, Section 6.3.4).

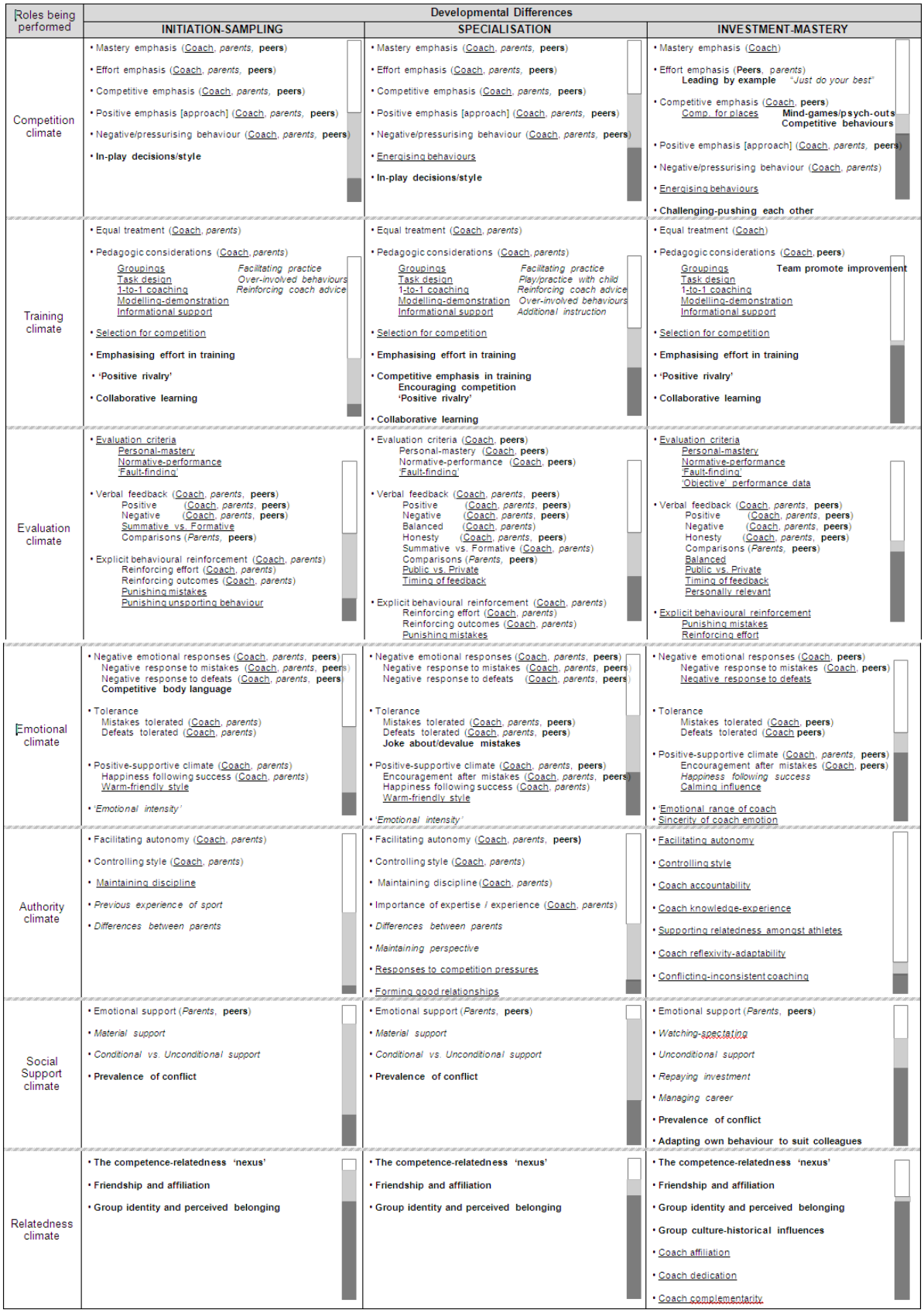


Figure 7.3.6.1: A summary of the main sources of motivational influence across the athletic career span. Underline = coach, *italic = parents*, **bold = peers**. Ideographic proportion bars have been added to indicate an informed judgement of the relative influence of social agents within each 'climate' across the career. For proportion bars, coach = white, parents = pale grey, peers = dark grey.

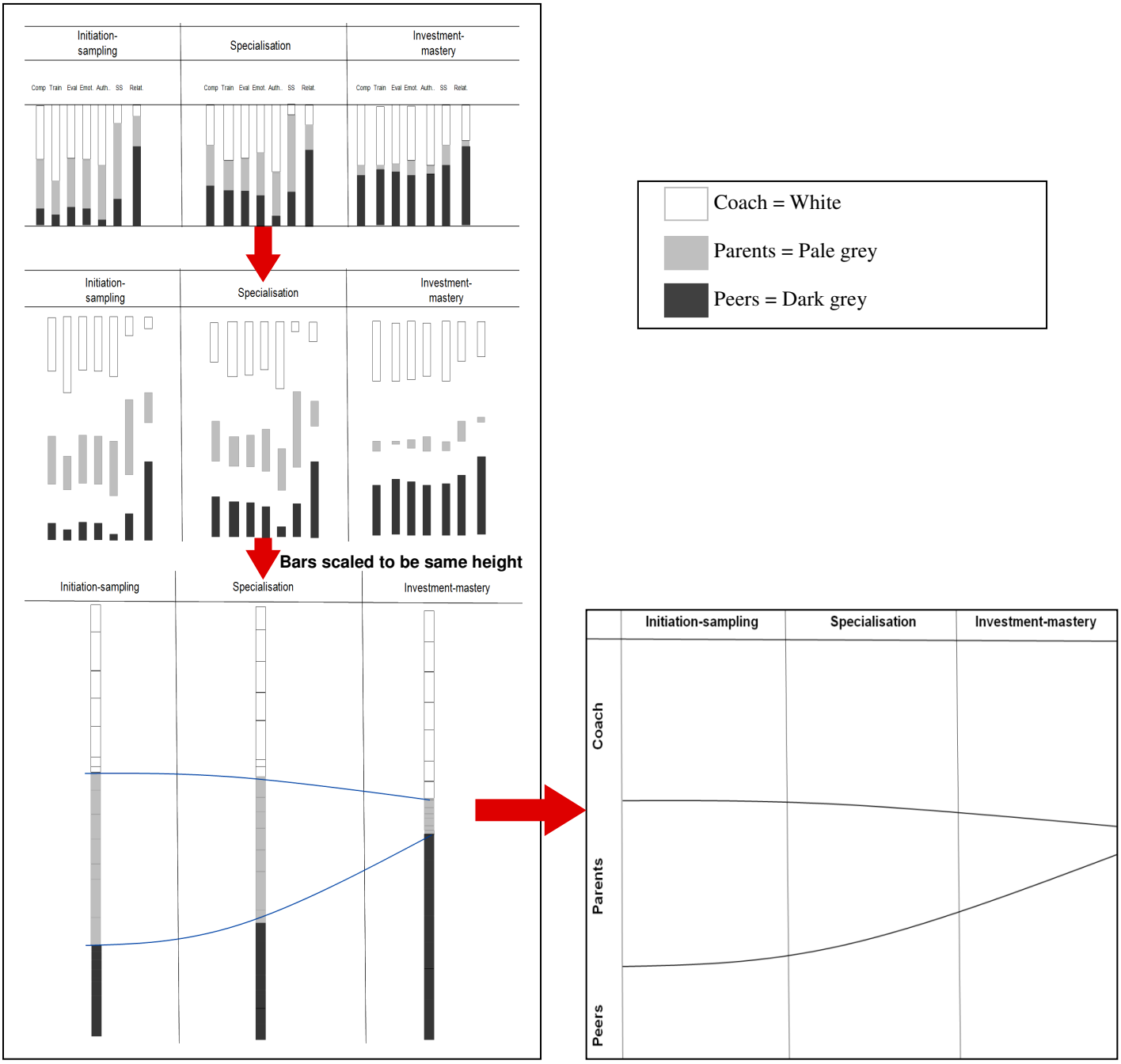


Figure 7.3.6.2: A heuristic diagram to show the ideographic transition from the 'proportion bars' in Figure 7.3.6.1 into an overall representation of the relative influences of coaches, parents and peers across the athletic career span.

7.3.7 - An appraisal of processes, relationships and nomenclature

Many of the studies that contributed to this review can easily be criticised for being too

descriptive and not achieving interpretive saturation. Whilst some of the undeniable value of these models (particularly the data-dense pivot tables) is in their rich detail and relevance, this has been a pertinent criticism; and one that required some attempt at a response. A deeper reading of the studies that were included herein returned several recurring themes and concepts which, taken together, may be quite revealing should they be deemed worthy of follow up. These recurring ideas and issues were incorporated into a lengthy and reflective process of theorising, the result of which is represented in Figure 7.3.7.

A recurring query throughout the project was the use of the term "motivational climate". For a time, the term was tolerated and permitted, or amended to become "broader motivational climate" (e.g., Study 1). However, as part of the conduct of this MI, terms such as "emotional climate" (Darling & Steinberg, 1993; p.488; Holt *et al.,* 2009; p.38) and "autonomy supportive climate" (Ommundsen & Kvalø, 2007; p.389; Standage *et al.,* 2003) emerged in relation to the social and environmental motivational influences. These suggested a potential sub-set of climates that possess relevance to a larger motivational construct. These observations and reflections - combined with the inherent association of "motivational climate" to AGT - led to the consideration of a different nomenclature and ideology, in order to try and represent the complex and multifaceted nature of the climate.

7.3.7.1 - Motivational "meteorology": It was reasoned that, meteorologically (borrowing from another discipline), climates exist within the broader atmosphere. The term climate usually refers to the averaging of local weather conditions. For example, the climate in the UK could be described as rather dour and generally grey, but also highly variable – such that a sunny April afternoon can easily be replaced by intense showers. The climate is what you expect; the weather is what you get. In addition, each climate (competition, training, evaluation, emotion, authority,

social support, relatedness) interacts with and influences the next in quite a complex system – the borders between climates are extremely permeable and it is difficult to specify where one ends and the next beings. Borrowing heavily from this analogy, the smaller climates identified in this MI (described in 7.3.4) were arranged into a broader, all-encompassing motivational atmosphere. Whilst these climates can be considered at a more abstract/general level (climate), they can also be examined in terms of the immediate and specific behaviours/exchanges taking place. These were termed *motivational conditions*. The immediate motivational conditions are most likely to influence the athlete's momentary motivation, but they also interact very significantly with each other (e.g., wind + rain = unpleasant; gentle breeze + warm sun = pleasant). This analogy might seem unnecessarily complicated, but it is worth noting that meteorologists are able to predict the weather with surprising accuracy in the short term (≈ a week), and even in the medium term (weeks/months). In order to achieve this, meteorologists require a detailed understanding of the atmosphere, climates and conditions, along with their nuances, interactions and interdependence. A simple dichotomy (e.g., hot vs. cold, wet vs. dry) can be useful, but does not adequately differentiate between atmosphere, climate and conditions. Neither does it afford the scientist a full and functional understanding of the phenomenon under study. This meteorological model at least represents and alludes to the complex nature of the social motivational milieu.

7.3.7.2 - Developmental changes: Continuing to extend the metaphor, an analogy can be drawn between the gradual changes in seasons (winter, spring, summer, autumn) and the gradual changes in an athlete's motivational atmosphere throughout the career. For meteorologists, changes in the axes-of-rotation relative to the sun result in changes in the prevailing atmospheric conditions/climate. For athletes, changes are identifiable on at least two levels. First, whilst the

overall nature of the climates might remain relatively constant, the behaviours and interactions within (and between) climates appear to change qualitatively (e.g., Figures 7.3.7.1 and 7.3.6.2). Second, the social agents supporting each climate seem to change quite substantially, especially upon entry into the investment-mastery stage (e.g., Figure 7.3.6.2). Having supported almost every element of the child-athlete's motivational atmosphere, parents seem only to offer social and emotional support to elite players relative to coaches and peers. In contrast, the peers of the youngest athletes appear to be making-up-the-numbers to some extent (relative to the pivotal influences of coaches and parents): providing opponents, team-mates, and opportunities for friendship. Over the career the influence of peers seems to increase quite markedly, supporting aspects of the competitive, training, evaluative, and emotional climates in addition to the above. Unfortunately, unlike seasons, the process does not appear to be cyclical. This seasonality addition neatly captures the idea that not only is the motivational atmosphere extremely rich and complex in and of itself, but it also develops and changes over time (although at least some of these changes are predictable). This does raise the important point that only some of the developmental changes are likely to be consistent/reliable between athletes, so that sport-participants from different backgrounds, cultures and sports will undoubtedly experience phenomena that are inconsistent with the developments specified in this MI. The unintended similarity between seasons (spring, summer, autumn) and career-stages (initiation, specialisation and investment-mastery, respectively) is an unexpected but permissible coincidence.

7.3.7.3 - "Motivational landscapes" and "motivational geology": This study has reviewed a broad range of research into the social and environmental influences on athlete motivation. The motivational atmosphere, its climates and conditions all act to influence and shape the athlete's

motivation. The simplest way of envisaging this effect is to invoke the idea of a landscape. In the same way that wind, rain, snow, rivers and ice can help determine a topography, the effects of the motivational atmosphere (and its contents) can be thought of as shaping a *motivational landscape* – both in the immediate moment and in the sense of longer term socialisation effects. For example, the fascinating rock-forms associated with the Arizona desert are (at least in part) attributable to the dry and arid climate and strong winds, which blow dry sand over boulders and slowly carve them into new and novel shapes. Both the short-term (dry/hot) and the longer term (red, strange-shaped), characteristics of the landscape are partially determined by the atmospheric conditions. One cannot consider the shape of a landscape (currently being taken to represent an athlete's motivational indices) without considering the properties of the land itself, the geology. Chemical make-up, sedimentary construction, tectonic forces etc. all have a significant influence in determining the shape of the landscape, as well as the effects the atmosphere can have on it. Similarly, the intrapersonal variables that have been studied extensively in relation to motivation (need for achievement, fear of failure, desire for social approval, etc.) will have a significant influence on both the pattern of motivation observed (landscape), and the way in which the atmosphere interacts with that landscape. This MI has explicitly excluded a consideration of these intrapersonal variables and their interaction with the social environment, but these would appear to be of vital importance in the ongoing study of this area.

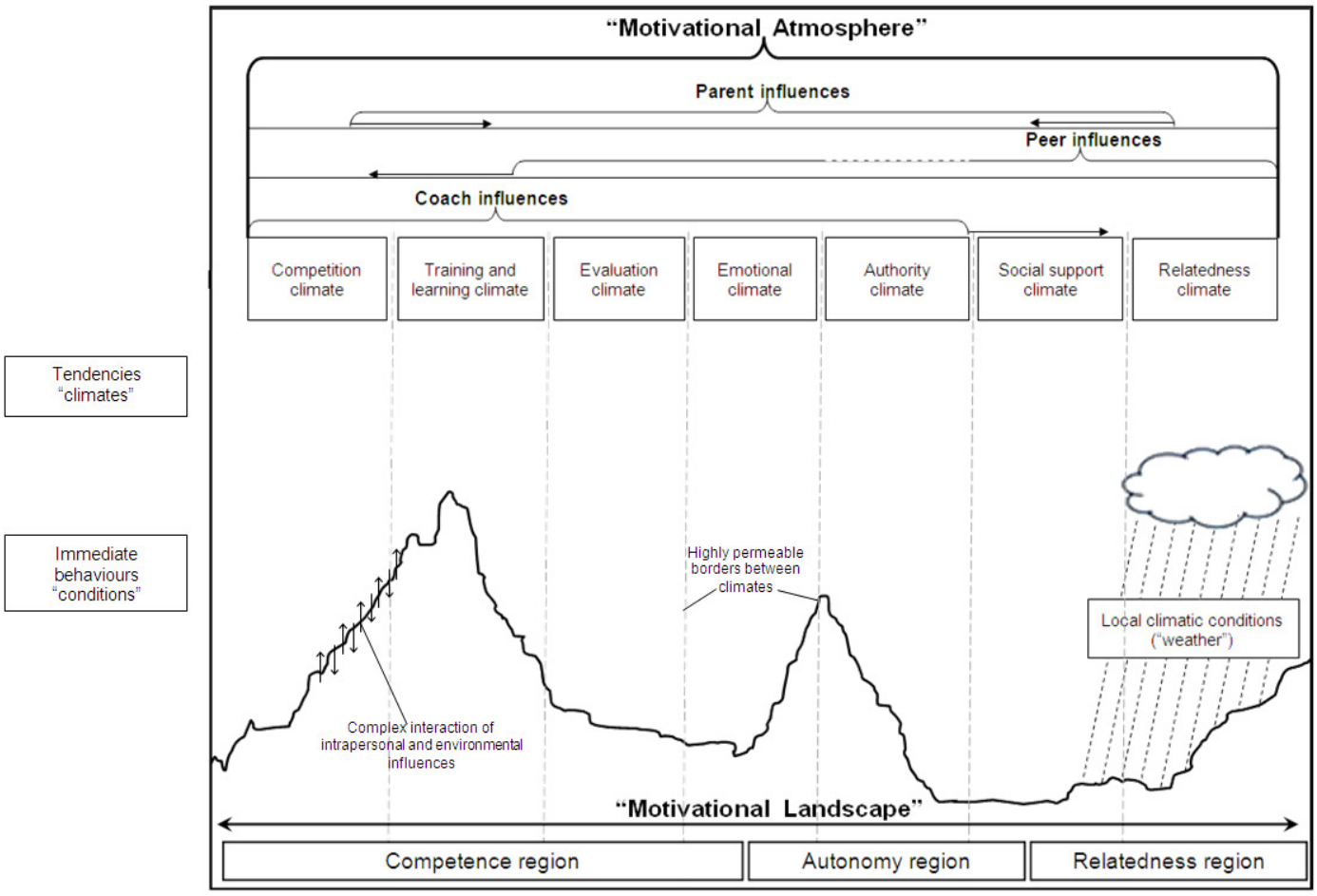


Figure 7.3.7: A heuristic model suggested processes, relationships and nomenclature for the study of social and environmental motivation. Momentary motivation (the 'landscape') is proposed to be shaped by a complex interaction of the social motivational processes identified in this study (the 'atmosphere') and the intrapersonal motivational variables identified elsewhere (the motivational 'geology'). NB: The 'atmosphere' contains several smaller 'climates'. Arrows (top) indicate changing influences as the athletic career progresses.

7.4 - General discussion

This study has attempted a qualitative synthesis of the social and environmental motivational influences experienced by athletes across their careers using the meta-interpretation methodology. The emerging analyses and models demonstrate rich and complex motivational atmospheres across the athletic career, although the interpretation aspect needs to be stamped in capital letters across these models until such time as they have been critically debated and

examined. In their favour, the overall model of social and environmental influences across career stages (Figure 7.3.6.1) describes three motivational atmospheres which contain consistencies across career-stages, differences between career-stages *that appear consistent* with maturational and developmental changes, and clearly identifiable resonances with existing theoretical and empirical work. These represent arguments for qualified claims to internal and external consistency that, taken together, might constitute a sufficient case for the open-minded consideration of the models presented.

7.4.1 - Developmental considerations

The processes of MI and modelling (already discussed) have suggested differences in the relative influence of coaches, parents and peers across the career span. It is also worth noting, however, that the qualitative content of the motivational atmospheres at each career stage, and the climates within them, were often quite consistent. For example, in the competition climate, emphases on mastery, competition, effort, positivity, and pressure/negativity were reported at all three career stages, although a closer inspection of the findings suggests that the social agents supporting these differ across the athletic career. In contrast, in-play decisions (playing style) is an issue identified relating to peers, especially in team sports, but this influence was not identified in the investment-mastery stage, perhaps because inclusive-versus-discriminatory playing style cannot be afforded at this level. Likewise, the coach was identified as exerting a passionate/energising influence in specialising and investment athletes, but not career initiators. One is left speculating as to why this may be, perhaps such passion may be intimidating to the generally young, career-initiators, or perhaps it is difficult to incite passion in athletes who are merely sampling a sport.

The training, evaluation and emotional climates were all remarkably similar at the abstract level, as shown in Figure 7.3.6.1. Once again, the main differences related to which social agents were supporting aspects of each climate, following the general pattern of parents being "squeezed out". The authority climate developed slightly differently, and whilst a distinction between facilitating autonomy versus controlling behaviours is apparent throughout, the over-riding shift is that by the elite level, the coach is the only remaining authority figure, meaning that all the influences at the investment level pertain to the coach. The social support climate makes consistent references to emotional support, material support, and the presence/absence of conflict. References to informational support were generally classified under the training climate, as they largely contained information about the sport (e.g., technique, training tips, career planning etc.). These three attributes are quite consistent with the sub-scales of social support identified by Rees and Hardy (2004), whereas references to esteem support appeared to be spread throughout the whole atmosphere as described in this study (e.g., positive feedback, building confidence before games, tolerance/encouragement after mistakes). The relatedness climate was dominated by the consideration of friendships between peers, feelings of belonging to a meaningful peer-group, and the way in which sporting competence can be associated with popularity amongst the peer group. At the investment level the relationship between coach and athlete appeared to become a key consideration, although it is not completely clear why this was missing in the initiation and specialisation atmospheres. The majority of parent influences that might have been classified in this climate appeared to be subsumed under the social-support climate, but this is not meaning to suggest that it is impossible to be friends with one's parents: merely that by the time this is possible (e.g., parents are no longer responsible for the safety and wellbeing of the athlete), the athlete is likely to be quite independent and self-sufficient, meaning

the relative influence of the parents on motivation in the athletic domain may well be smaller (i.e., the parents are less likely to be present at every sporting event, to be purchasing equipment, or needed for transport etc.).

7.4.2 - Beyond dichotomous and tripartite models

As has previously been argued, the motivational atmosphere model that has emerged as a result of this analysis is characterised by its complex nature and the apparent interactivity between behaviours in influencing motivation. This conceptualisation has been analogised with the meteorological study of the atmosphere, climates, conditions and weather, in a manner consistent with those studies that have been calling for a deconstruction of the social-motivational milieu, in order to facilitate a fuller, more functional understanding (Elliot, 1999; Smith *et al.,* 2007; Studies 1, 2, and 3). Hence, whilst the contribution of key theories such as achievement goals and self-determination theory should not be underestimated by any means, maintaining a dichotomy between task and ego goals would appear to be a limitation to future research, akin to simplifying the study of meteorology to the study of hot versus cold weather. Likewise, a 'clean' tripartite distinction between competence, autonomy and relatedness needs, drawn from self-determination theory, might be viewed as akin to simplifying meteorology to the study of water in its three physical states (gas, liquid and ice – although notably Deci and Ryan do cite hypothetical interdependence between the three SDT constructs). Like the meteorology metaphor being deployed here, task, ego, competence, autonomy and relatedness considerations do seem to permeate the motivational atmosphere, as do considerations of social goals (Urdan & Maehr, 1995; Wentzel, 1993) and the approach-avoidance (Elliot, 1999) distinction. Searching Figure 7.3.6.1 (and especially the pivot tables) for indices compatible with each of these theories

will return numerous results. The danger, as argued here, in allowing any single theory to steer one's understanding of the motivational atmosphere is that it precludes a fuller, contextualised, nuanced understanding of the ways that athlete motivation is influenced by key social agents. If one accepts this argument, then it becomes necessary to question the apparent implicit requirement placed on researchers in social motivation to adopt one of these theories prior to collecting any data. The choice between a complex-interactive approach to studying social motivation in sport and a single theory approach (although sometimes two are permitted, as long as they are compatible) can be simplified to the following question: Are the social-environmental influences on athlete motivation best understood in relation to a single theory, or by entertaining the idea that each of these theories contributes something useful to the analysis? The experience of conducting this study (and the three preceding studies) is that it is best to critically evaluate the potential contribution of each theory on its own merits, always making a conscious effort to attenuate the undeniable role that theories play in shaping one's perceptions and interpretations – such that extant theories are forced to 'earn' their way into the analysis (cf., Charmaz, 2006)

7.4.3 - Beyond TARGET

In relation to the above propositions, an argument also emerges from the present analysis that the TARGET acronym (Ames, 1992a, Epstein, 1989) has also gradually become an impediment to progress in this area. This is not to claim that it was never an appropriate approach. Indeed, the framework kick-started over 20 years of research and led to some very useful studies in sport, PE and academic school-work. Rather, in the light of the current analysis, the TARGET framework appears to be overly simplistic, not only in terms of only offering six criteria (several of which only seem to relate to the training and evaluation climates specified

here), but also that the six criteria of TARGET are each explicitly associated with a task and ego definition (as described in the introduction). It is quite difficult to reconcile the TARGET framework with social goals and the psychological needs specified in self-determination; even associating it with approach-avoidance motivation requires some notable creativity (a task that was naively attempted during the initial conceptualisation of this project). In addition, TARGET was originally conceived to apply to teacher/instructor behaviours (Ames, 1992a; Epstein, 1989), which does not immediately translate to coaches and does not represent the influence of parents and peers. Consequently, in relation to the current meta-interpretive analysis, the TARGET framework appears to have become less applicable on three counts: a) specifying six indices of teacher/coach motivationally-relevant behaviours is simply not enough, when contrasted against the current analysis, b) the TARGET framework is only compatible, strictly speaking, with dichotomous achievement goals theory (Nicholls, 1989) and so immediately subverts the other equally relevant theories; c) limiting consideration to the influences of the coach/teacher glosses over the important (and again, interdependent, co-occurring) influences of parents and peers. To be clear, the suggestion of this analysis and several others, highlighted above, is that in order to progress our understanding in this area it is now necessary to jointly consider these influences, or at least acknowledge that something important is lost by omitting them.

7.4.4 - Domains other than sport

By focusing exclusively on sport, this study has produced a rather two-dimensional meteorological model of social and environmental influences on athletic motivation. Its transferability into other domains, such as PE, exercise, classroom teaching, etc. needs to be assessed separately. Indeed, the atmosphere is likely to be quite different between sports, should

the athlete participate in more than one (as is often the case for initiators). It is possible that the metaphor transfers quite readily, so long as one is prepared to substitute some of the contents of the atmosphere, and reconsider the constitution of the landscape. Another possibility not discussed here, is whether (and to what extent) motivational influences from one domain (e.g., sport) might transfer into another (e.g., PE). This is often an assumption made in areas such as positive youth development, and if one considers the motivational landscape as a kind of blanket/plane, it is unlikely that a high peak or low trough in one domain would not be echoed in an adjacent (conceptually very similar) domain. Hence, good experiences in one sport may have implications for the next, or for PE, although the mechanisms of such a transfer remain largely unknown. This might form another potential area for future research.

7.4.5 - Limitations

The central limitation of this study (depending on one's philosophical viewpoint) is the heavy reliance on interpretation and, in particular, the interpretation of other authors' outcomes. Significant effort was exerted in order to avoid re-interpreting such findings, as described earlier, but inherent in a study such as this is the creative, often unstructured process of theory-building ("bricolage" – Levi-Strauss, 1966; or "bisociation" – Koestler, 1976). In considering the impact of such a limitation, it is helpful to pause and consider where existing theories have come from, for example AGT and SDT. How transparent and valid was the development of these theories? And how consistent were they with the existing theories of the time? To what extent are tests of validity/credibility/trustworthiness necessary in the theorising process? And at what stage of theory-building do transparency and critical discussion become necessary? In defence of the current study, these processes have all been deployed as early as possible: this study has

attempted to demonstrate transparency and trustworthiness throughout, as well as incorporating processes of critical discussion at every stage (data collection, data analysis, private reflection, member checking, consensus validation, peer-debrief, clear audit trail, and full disclosure of data/findings). In so doing, it is hoped that the findings will qualify for an initial consideration and subsequent critical discussion.

A second limitation is the relative lack of research papers that were compatible with a data-driven, interpretive approach. Forty-five papers contributing to such a study seems rather low, but on examining the inclusion/exclusion criteria (specified earlier), it becomes clear why this is the case; not least because hundreds of studies in the area adopt *a priori* a single theory, or theory-informed measurement tool and simply correlate questionnaire-derived data – often in an attempt to 'test' or extend the applicability of the theory. This was not compatible with the aims of the current study. Finally, at this time the analysis and models presented here are the product of a single researcher, situated within a larger research team. As such, every reader is encouraged to critically question and debate the models themselves, perhaps comparing them to existing theories of athlete motivation. If any reader is satisfied that the models are worthy of further examination, then they are very welcome to embark on research to test, modify and amend these proposals.

7.4.6 - Implications for research: Where do we go from here?

In the process of conducting the meta-interpretive analysis, a framework emerged in which 63 areas of interest were identified: three career stages, by three social agents, by seven climates. Upon searching the literature in order to populate these areas, many of the searches returned no studies of relevance. In particular, the initiation and investment-mastery atmospheres were

extremely difficult to populate, beyond the work done in Studies 1 and 3, respectively. Hence, each of these 63 individual boxes (see Appendix I) represents an opportunity for exploration, and even then, many of the themes within boxes are worthy of further investigation in their own right. Not only would the current attempt to identify social-environmental influences on motivation benefit from independent collaboration (or refutation) but equally, certain concepts within the motivational atmosphere may benefit from additional clarification.

The present study suggests there is potential in seeking to elucidate the relationships between climates (competition, training, evaluation, emotion, authority, social-support and relatedness) – a task that proved rather difficult in the current study – as well as examining the ways in which specific aspects of the motivational atmosphere interact with: a) each other, and b) the athlete's intrapersonal characteristics – in shaping the athlete's short and long term motivation. In its current format, the meteorological model would suggest that increased distance between climates in the vertical structuring of the model (see Figure 7.3.7) might predict decreased correlations between the constructs within them. However, there is no clear delineation proposed between climates, simply degrees of separation: shades of grey. Likewise, the present conceptualisation would predict stronger correspondence between the immediate behaviours of social agents (motivational conditions/weather) with immediate motivated behaviours, whereas a more general average of the climatic conditions (the climate) would be less consistently associated with immediate motivated behaviours, but show more correspondence with general attitudes towards sporting involvement. In total, the above arguably represents several careers' worth of research.

8 – Conclusions, implications and recommendations

> *But I shall let the little I have learnt go forth into the day in order that someone better than I may guess the truth, and in his work may prove and rebuke my error. At this I shall rejoice that I was yet a means whereby this truth has come to light.*
>
> (Albrecht Dürer, circa 1513, cited by Popper, 1963; p.xviii)

8.1 - Overview:

This project set out to identify the specific motivationally relevant behaviours, properties and styles of coaches, parents and peers - across the athletic career span. In line with existing conceptualisations of athlete development, the career span was divided into initiation/sampling, specialising, and investment/mastery (Côté, Baker & Abernethy, 2003; Wylleman, Alfermann & Lavallee, 2004). The findings of any project with such aims hold the potential to first facilitate the testing and exploration of theoretical tenets at the level of situational behaviours, as well as contextual perceptions and generalities; second, increase the applicability of existing motivational theories, such that well-supported findings can be translated into specific, concrete advice for coaches, parents and peers, and third, facilitate (or stimulate) the tailoring and development of new theoretical perspectives, specifically regarding the social and environmental influences on athlete motivation. All of the above outcomes would arguably represent meaningful developments, and this project has both provided a substantial starting point as well as developing a methodology that holds promise for further exploration.

In order to adequately draw the current project to a close, the following 'loose ends' need to be tied off: a) a broad discussion of the behaviours exhibited by key social agents and the ways in which they may influence athlete motivation; b) the theoretical and applied implications of these findings; c) the kinds of future research that would allow these ideas to be developed, as well as ideas for different avenues of future research; and d) completing the circle, by concluding in relation to the original aims and objectives, and identifying, where appropriate, how questions raised in the

literature review have been addressed or modified in light of these findings.

8.2 - Situational behaviours and their impact on motivation

The three main studies in this project (Chapters, 4, 5 and 6) have identified a plethora of motivationally relevant behaviours, and categorised them into approximate conceptual domains; domains which generally related to either the fulfilment of a fundamental supporting role (e.g., teaching/coaching, giving feedback, leadership) or key sports-specific moments (e.g., pre-performance motivating behaviours, training and instruction). The fourth study, Chapter 7, attempted two tasks: both synthesising these three studies with other similar research, and also constructing a model of how these social and environmental influences on motivation may vary across the athletic career span. A central and important finding of these studies was that, without exclusion, the impact of a single behaviour in a specific moment (i.e., the most situational of situational levels) could never be guaranteed (and therefore predicted) to have a specified effect on an athlete's motivation. Previous and co-occurring behaviours could never be ignored and could have differential effects on motivation. For example, depending on circumstances, praise might be seen as patronising or sarcastic, whilst criticism could be seen as spurring one on, or "only because he cares". Apparently 'good' behaviours, such as facilitating autonomy by involving a child in decision-making, could easily prove negative by, for example, offering the athlete too much responsibility, or requiring a decision when the athlete does not feel they possess enough information to make an informed choice. However, by classifying and grouping these behaviours into more abstract categories, generalisations are inherently made which do, in some cases, allow one to cautiously associate broad categories of behaviour with likely motivational outcomes. The real challenge, however, is in building motivational atmospheres around athletes where single behaviours are *highly likely* to be viewed as motivationally adaptive (e.g., co-occurring behaviours/interactions *and* context-level generalities all

act together to increase the likelihood of the momentary behaviour having a positive impact – i.e., "*atmospheric complexes"*).

The most salient theme through all the studies in terms of promoting motivation was 'positivity' – which included any behaviours inciting approach-type motivation (e.g., building confidence, highlighting positive consequences), positive affect/emotion, friendship, collaboration, and, of course, praise. In contrast, behaviours which are associated with negativity might be generally expected to undermine motivation. At the general level, behaviours invoking avoidance-type motivation (e.g., emphasising punishments and negative consequences, a fault-finding evaluative style), negative affect/emotion (such as anger or sadness), conflict, rivalry and of course, criticism may all be associated with an increased propensity for reduced motivation. Less prominent but certainly notable were a cluster of ideas surrounding facilitation: making it possible for the athlete to practise, learn, improve, or achieve. This might include an autonomy-supportive leadership style, offering useful and personally-relevant advice at opportune moments, facilitating/encouraging practice, creating tasks/games that allow athletes of any ability level to engage and improve, providing transport, equipment and moral support, or collaborating with peers (for example, to help them learn a skill). There appeared to be a very fine line between this facilitative, autonomy supportive approach, and the giving of unsolicited instructions or opinions – which can begin to appear controlling, judgemental or disparaging, and thus undermining autonomy – even if the provider is convinced they are being helpful. Coaches who exhibit a controlling leadership style, parents who become over-involved or who make their love/support contingent upon sporting success, and peers who refuse to collaborate or who willingly cultivate links between normative ability and social popularity could all be quite detrimental to athlete motivation as they are undermining the athlete's own need for autonomy.

Finally, affiliation and close relationships were also almost invariably associated with adaptive

motivation from athletes. The main exception to this would appear to be that when an athlete likes their coach/parent/peers, they may wish to avoid "letting them down". However, for the main part, feelings of mutual closeness and commitment with one's coach, and experiences of friendship and group belonging amongst the peer group were frequently associated with positive motivational patterns. In the broadest terms, the above pattern of behaviours and interactions seems likely to be closely associated with optimal and adaptive motivation in athletes across all three career stages. As already discussed, the relative influences of social agents may change across the career span, as may the exact roles being fulfilled by these social agents. However, if everybody and anybody who finds themselves performing a key role in supporting an athlete is positive, facilitative, and fosters good relationships (as described above), then optimal motivation appears highly likely to be facilitated.

The original interpretation of AGT (Nicholls, 1984; 1989) may counter that the above merely describes task- and ego-climates, respectively. The difference is that unlike most of the research using AGT, the three main studies of this thesis permit a fuller understanding of the specific situational behaviours, and the contexts in which they may occur *and* in doing so, they offer insights into why a specific task-involving behaviour from a coach or parent (derived for example, from the TARGET framework) may not produce the expected goal-involvement state or behaviour. In addition, the current conceptualisation is compatible with other theories of motivation. Approach-avoidance goals, for example, are clearly depicted in the theme of pre-performance motivating behaviours, wherein social agents can build confidence and emphasise success, or they can show fear and emphasise the consequences of failure. Social goals are well represented by themes such as the competence-relatedness nexus and friendship/affiliation (both amongst peers), or by the (un)conditionality of parental support. Self-determination theory (SDT), which itself is a relatively comprehensive attempt to explain motivated behaviours, may now be tested at the situational level using many of the themes presented herein to see if supporting the three basic psychological needs proposed by SDT produces

observable changes in behaviour (rather than examining whether the athletes' *perceptions* of need fulfilment are correlated with their own *perceptions* of enjoyment/satisfaction). The current findings allow future research projects to progress by examining the situational level-of-generality at an almost-moment-to-moment level, rather than relying on generalised perceptions which, at best, represent the contextual level-of-generality and which arguably guarantee the finding of loose associations between variables. In order to more fully understand the specific behaviours (*and* sets of behaviours) from each social agent, *and* their potential combinations, *and* the specific moments in which these behaviours should occur; in relation to the way they impact upon motivation then more research is undoubtedly necessary.

8.3 - Theoretical and applied implications

8.3.1 - The theory side: Throughout this project, four main theories of motivation have been used to provide sensitising constructs, terminology, and known conflicts/tensions. These theories were AGT (Nicholls, 1984; 1989), approach-avoidance goal theories (Elliot, 1999; Elliot & McGregor, 1999, 2001), Self-determination theory (Deci & Ryan, 1985, 2000), and social goals (Urdan & Maehr, 1995; Wentzel, 1993). As demonstrated in Chapter 2, each theory has been supported at the more abstract (i.e., contextual) levels of generality, sometimes even well supported, but findings are much less consistent when considering specific situations and momentary behaviours, which have formed the focus of this thesis. Chapters 4, 5 and 6 returned findings that were compatible in some way with each of these theories, but no single theory was capable of 'containing' all the results and findings of these studies in a satisfactory manner.

In such a situation, there are approximately three options: a) choose one of the competing theories, perhaps the most compatible, and adapt it in such a way as to contain the findings of this study and other similar studies (i.e., those detailed in Chapter 7), b) seek to integrate the existing

theories, perhaps by developing them in such a way that they begin to converge, or by generating a hybrid theory, or c) develop a new theory specific to the social and environmental influences on motivation. Whilst there may be some value in producing new questionnaires (for example ones that do not seem to confound perceptions of a mastery climate with 'nice-ness' - by asking positively oriented questions about feeling important and gaining skill - and perceptions of a performance climate with 'negativity' - by asking questions regarding rivalry and punishment) the generation of new questionnaires seems likely to merely postpone the plateau in motivational climate research, signposted by Harwood *et al.* (2008) Once the options for theoretically specified correlation studies are exhausted, what options are left for fruitful research? Instead, this project has tended towards option c, by attempting to formulate a new, and as yet highly tentative, theory specific to the social and environmental influences on athlete motivation: the *motivational atmosphere*. In this approach, studying the mechanics of the motivational atmosphere becomes *motivational meteorology* – a nomenclature that explicitly accepts and promotes the inherently complex and unpredictable nature of the social milieu (in that meteorology is a complicated pursuit, having to deal simultaneously with temperatures, humidity, pressures, gas composition, etc.); and this is an important departure. Whilst it must be emphasised that intrapersonal factors have not been studied within the current thesis, the suggested labels of *motivational landscape*, and *motivational geology*, respectively, would be consistent with the approach that has spawned from this thesis: an approach which focuses on the situational level-of-generality (building towards the contextual level) and, whilst it accepts that this may create methodological difficulties and/or undermine the chances of finding neat consistent effects, the situational level should not be ignored when trying to understand the mechanisms and elegant details of motivational processes. The focus on situational factors also brings theory and research into closer alignment with application; facilitating improved propagation of new ideas and more effective recommendations for those practitioners, coaches and parents who may otherwise

dismiss motivational research as too abstract or vague (the so-called “ivory towers” argument).

8.3.2 - The applied angle: One very salient benefit of this research project is that, by examining the situational influences on athlete motivation in detail, it holds the potential to decrease the conceptual distance between theory and practice. Where theoretical relationships are well understood and well supported, this research has returned a relatively comprehensive list of the ways in which these theoretical ideas can be conveyed or emphasised by coaches, parents and peers. It facilitates the provision of specific advice to key protagonists involved in the development of motivated athletes. As such, the current findings suggest that practitioners and academics should apportion increased time and attention to identifying and understanding the motivationally relevant behaviours of key social agents with a view to enhancing the content of educational programmes. This is because such programmes are likely to keep occurring in teams and clubs across the world, regardless of whether the motivational literature has been successfully ‘translated’ or not. Indeed, without increased relevance and immediacy, research into motivation may be in danger of being left out of coach education programmes entirely. The current project has begun to offer such insights into the motivationally relevant behaviours of coaches and parents with the additional consideration of contextual relevance. Regarding the peer climate, there are perhaps two possible approaches for applied practitioners: both educating coaches and parents on how to effectively manage the motivational interactions within the peer group, mirroring Harwood’s (2008) 5Cs intervention, and also working directly with teams of athletes/players to develop an effective contribution from peers to the motivational atmosphere. In providing specific examples and instances of motivationally relevant behaviours, the current thesis begins the accrual of valuable information about the motivational atmosphere. From an applied perspective, the current research project permits the following improvement to the advice which applied practitioners can offer (in *italics*): “Here is what

[Theory A] says about motivating athletes. Here is some research supporting [Theory A]. *Here are some (carefully researched) pragmatic suggestions as to how you can implement this theory and research in your own practice [coaching/parenting]*".

The findings of this project also offer researchers and practitioners a check-list of the potential behaviours that can be observed in certain circumstances – akin to a list of all the potential ingredients that could be used by a chef in preparing a dish. In each case, the exact combinations, amounts/frequencies, order of introduction etc. might need to be further studied or better understood, but in each case it is helpful to understand the ingredients in the first place. With a knowledge of the basic ingredients, practitioners and researchers alike can begin the process of trial-and-error in understanding how best to motivate the athletes they are dealing with. The current findings do not offer a 'magic bullet' for promoting optimal athlete motivation (in the way that task-climate might be offered up by AGT), nor is the possibility of a single, all-encapsulating theme/idea supported by the complex, interactive nature of the motivational atmosphere described herein. Indeed, perhaps the main limitation of this project is that it does not offer neat, simple guidance on how to act. However, the above findings and discussion can be translated into a single key idea for coaches, practitioners, parents and athletes: *reflective application*. Thus, rather than prescribing a certain way of acting most of the time, the best advice that can be given as a result of this research is for key social agents to keep in mind the following: what 'good' motivation looks like, how this varies in different circumstances, what actions and behaviours tend to precipitate 'good motivation', and how certain behaviours may take on a different light depending on recent, co-occurring and subsequent behaviours (perhaps these combinations might be termed *atmospheric complexes* – cf. Elliot, 1999). One of the most fruitful avenues for future research would be to try and begin understanding these complexities and interactions in the motivational atmosphere and the ways in which they combine to influence motivation.

8.4 - Future research directions

Whilst this project has been restricted to the study of social and environmental influences on motivation within sport, a similar approach could be taken in order to foster increased understanding of motivational atmospheres in other domains, such as exercise/health, schools/education, and the workplace. Likewise, whilst the current study examined three stages of the athletic career, the same methodology could be applied to recreational participants, masters-level participants and retired/retiring participants. Equally, the literature examining career-transitions may shed light on how the motivational atmosphere changes as athletes make transitions, and how best to manage this. In addition, the same methodology could be applied to special populations such as disability sports, or comparisons could be made between interactive team sports, co-active team sports and individual sports. The literature is also beginning to recognise dual-roles for certain social agents, for example parent-coaches, sibling-team-mates, spouse-coaches etc. (Jowett & Meek, 2000). These may offer interesting insights into the motivational atmosphere, especially given the emphasis on roles and role fulfilment which has emerged in the current project. If a single person is carrying out multiple roles in an athlete's motivational atmosphere - competitive roles, training roles, evaluative roles and supporting social and emotional needs - how might this impact upon the athlete?

Provided that the basic findings of this thesis are substantiated in the future (either by research evidence, academic consensus/acceptance, or both), then the most pressing avenue for further research is in trying to 'solve', or at least understand, the enigma of the complex interactions that occur in shaping athletes' immediate motivation. These may include interactions between 'atmospheric' variables/themes, interactions between a behaviour and the athlete's own predispositions/personality (e.g., momentary and/or 'socialisation'), the specific impact of behaviours in context (for example, is a relationship a direct influence on motivation or does it moderate the way that certain behaviours are perceived? Or is it both?). How important is consistency in a motivational

atmosphere? For example, if a single derogatory comment is made against a background of general praise, facilitative coaching and a positive relationship, is it simply ignored or is it even more detrimental? What about a single derogatory comment against a background of consistent criticism? And under what circumstance might one of these 'frames-of-reference' change from generally positive to generally negative, or vice-versa? This research could take the form of quantitative experiments, perhaps chipping away at one variable at a time, or qualitative action research attempting to ascertain *what* can each key protagonist do, *when* (i.e., what circumstances), and *how* do they go about it (cf. Smith, 1989, cited in Chapter 6)? The benefit of action research is that it is arguably being carried out all the time by any coaches, parents, athletes and practitioners involved in sport; and so by reflecting on these experiences and finding ways to disseminate the outcomes of these processes, there is an almost unlimited supply of potential researchers – which is arguably necessary to try and build an understanding of the numerous behaviours, interactions and contexts identified in this project. If such research were co-ordinated and overseen by experienced academics, then there is no reason for it to be excluded as a potential avenue of research. However, in understanding the magnitude of certain key effects and the relative importance of key social agents and their behaviours, then quantitative research may also play a vital role.

It is perhaps worth noting that all the above-suggested ideas for studies focus on the situational level: on immediate behaviours and on collections of behaviours. This is a marked departure from the general tendency in motivational research to focus on the most abstract of contextual levels and/or general perceptions. The experience of conducting this research suggests that if a contextual level-of-generality model is to be built regarding social and environmental influences on motivation, it should be built from the ground up, with its foundations in the situational moment-to-moment happenings. It should not be derived from theoretically prescribed ideas (e.g., task and ego climates), which force a

relatively abstract approach, and nor should it be 'short-circuited' by exclusively assessing athlete's subjective perceptions at a very general level using questionnaire items derived from abstract theoretical tenets. The combination of the above two approaches arguably propagates the positivist, theory-led approach which has dominated motivational research, and likely causes researchers to *find-what-they-are-looking-for* rather than *detecting-what-is-there:* a subtle but important difference which highlights the importance of a critical realist approach. The critical, ground-up approach being suggested may seem extraordinarily complicated and unnecessary, akin to asking a weather forecaster to predict the weather conditions over a particular house, at a particular time of day, several weeks away. The difference between the weather forecaster and the motivation researcher is that the meteorologist does possess a relatively full and sophisticated understanding of the variables that will contribute to this answer, and s/he may well know where to look to start finding these answers. As the time/date approaches, the weather forecaster will be able to make increasingly accurate predictions, but s/he will probably have been quite accurate for about 4-5 days beforehand and will only need to make smaller and smaller adjustments to the prediction. In contrast, the motivational researcher would either dismiss such a request as impossible and inappropriate, or perhaps admit to being rather poorly equipped to answer such a specific question as the prediction of an athlete's motivation towards a specific task, at a specific time, several weeks away. The specificity is the problem. A determined researcher could proceed by taking a measure of the athlete's self-reported contextual motivation and it would probably be quite a good predictor of their self-reported contextual (and perhaps situational) motivation at the specified time in the future. This might even be a reasonable predictor of the way the athlete approaches the specified task. However, the accuracy, specificity, and knowledge of specific processes are undeniably missing. This is a problem in itself, but also because it enfeebles and renders impotent the coaches, parents and peers who could be contributing effectively in the mean time. Whereas the weather forecaster could leave his/her client

with a barometer and a list of key things to check before putting the laundry out to dry, the motivational researcher would be struggling to produce such specific guidance, along the lines of "if you see this happen in these circumstances, then do this". At best, this advice should be couched in the form "if you see this happen in these circumstances, then [Theory A] suggests you should do this (...but Theory B might say something different)", but even this is negated by the difficulty in achieving adequate specificity to fill in the meaning of "this" (both times) and "in these circumstances". If future research progresses in a way that allows coaches, parents and peers alike to be reflectively aware of their impact on athlete motivation, by identifying the key variables, how they interact and what to look out for, then this would constitute significant progress in the field of motivation research. This thesis constitutes the first step of this journey, and whilst it may subsequently begin to look like quite a clumsy step – it is a first step nonetheless.

8.5 - Completing the circle

In reviewing the extensive lists and tables generated during the three main studies, the main aims of this project would appear to have been addressed effectively, notwithstanding any future additions and clarifications. The literature review identified a number of specific issues in the research examining socio-environmental influences on athlete motivation, and whilst the current thesis may not have provided full and complete answers to all of them (an arguably impossible task), it has provided some partial answers for some, as well as signposting avenues for the successful resolution of others.

Regarding level-of-generality, this thesis has identified a broad range of specific situational behaviours that could be viewed as 'opening up' the situational level of generality for further study. This project has also suggested that, whilst it may be methodologically awkward, and difficult to interpret or reconcile with theory, the situational level of generality offers some important insights for

both researchers and practitioners alike. In fact, perhaps the exploration of situational influences constitutes the next logical (and exciting) step in motivational research.

Regarding developmental differences, this project has made a concerted effort to examine the differences between what young, adolescent and mature athletes perceive to be motivationally relevant. The only theoretical guidance on this would be Nicholls' (1989) suggestion that athletes below 11-12 might perceive a fundamentally different 'climate' to older athletes, as younger athletes were unable to differentiate between effort, ability and luck in determining success. This suggestion was not borne out by the data, with sampling athletes (7-11) reporting quite similar themes and ideas to the older specialising athletes (11-18). As such, either studies such as Vazou, Ntoumanis and Duda (2005) were arguably misguided when they omitted young athletes on these grounds, or perhaps it is possible that younger athletes observe very similar behaviours and interactions to their older counterparts, but they interpret them differently. In this project, the responses of participants in Chapters 4 and 5 provided evidence to suggest that young athletes were, indeed, differentiating between effort and ability by, for example, noting the impact of summative (entity/ability) versus formative (incremental ability) types of feedback, or discussing how they may still fail despite exerting maximal effort. Taken alongside the studies conducted by Smith, Smoll and Cumming (2007; 2009), and the re-interpreted findings of Fry and Duda (1997), this may well suggest that the salience of effort and ability in sport mean that young athletes can differentiate between the two. Additional research to examine this possibility would be timely and would help to decisively settle this debate.

Overall, however, the most notable developmental difference occurred between the specialising and investment-mastery stages, with parents appearing to 'drop out' of the motivational atmosphere, and peers (sporting and otherwise) appearing to take over the roles performed by parents, in terms of supporting emotional and relationship needs. The role of

facilitating material needs, such as transport, equipment and finance also appeared to be negated when the athletes reached maturity and could perform these tasks themselves. Most investment-mastery athletes seemed to appreciate the role performed by their parents when they were younger, often citing it as a motivating factor, but when asked "how do your parents influence your motivation now" the answer was frequently "they don't, really".

Regarding the way in which an approach-avoidance climate might be constructed, this question has, to some extent, been nullified. Whilst the interested approach-avoidance or SDT or social goals theorists could 'cherry pick' themes from these findings and use them to construct questionnaires or conceptualisations, they would have to work hard to avoid the warning that this might be inappropriate in the light of the complex and interactive nature of the motivational atmosphere. Whilst aspects of all these theoretical approaches permeate the motivational atmospheres of athletes at all three career stages, the clear message should be sent that they do not occur in isolation. Approach-avoidance appears to be inextricably linked with the pursuits of competence, relationships/social goals, and autonomy, status and power. Likewise, all of these potential goals/needs appear to be interrelated, and a situation or context can differentially support/endorse them to different degrees. Whilst a statistician could potentially design questionnaires measuring perceived approach-avoidance climate, or perceived competence-autonomy-relatedness climates (and in the short term these may be well received and generate a few publications), the chances are that the same problems discussed above (i.e., retreat to contextual level-of-generality and reliance on subjective perceptions) would produce a similar plethora of correlational studies, resulting in a similar (potentially even more arresting) plateau in motivational research. Instead, the methodology developed during the current project, along with its findings and their implications, offer a promising and exciting approach to the study of motivation in sport, and perhaps other domains.

9.0 - References

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10 - Appendices

Appendix A – Ethical approval forms

ETHICAL ADVISORY COMMITTEE

Loughborough University

Ethical Clearance Checklist
(TO BE COMPLETED FOR ***ALL*** INVESTIGATIONS INVOLVING HUMAN PARTICIPANTS)
All staff wishing to conduct an investigation involving human participants in order to collect new data in either their research or teaching activities, and supervisors of students who wish to employ such techniques are required to complete this checklist before commencement. It may be necessary upon completion of this checklist for investigators to submit a full application to the Ethical Advisory Committee. Where necessary, official approval from the Ethical Advisory Committee should be obtained ***before*** the research is commenced. This should take no longer than one month.

If your research is being conducted off campus and ethical approval for your study has been granted by an external Ethics Committee, you may not need to seek full approval from the University Ethical Advisory Committee. However, you will be expected to provide evidence of approval from the external Ethics Committee and the terms on which this approval has been granted.
If you believe this statement applies to your research, please contact the Secretary of the Ethical Advisory Committee for confirmation.
IF YOUR RESEARCH IS TRANSFERRING INTO LOUGHBOROUGH UNIVERSITY AND APPROVAL WAS OBTAINED FROM YOUR ORIGINATING INSTITUITON, THERE IS A REQUIREMENT ON THE UNIVERSITY TO ENSURE THAT APPROPRIATE APPROVALS ARE IN PLACE.
If you believe this statement applies to your research, please contact the Secretary of the Ethical Advisory Committee with evidence of former approval and the terms on which this approval has been granted.
It is the responsibility of INDIVIDUAL investigators to ensure that there is appropriate insurance cover for their investigation.
If you are at all unsure about whether or not your study is covered, please contact the Finance Office to check.

Name and Status of Senior Investigators (Research Grade II and above):
(Please underline responsible investigator where appropriate)

Title	Dr	Surname	Lavallee	Forename	David
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Department Sport and Exercise Sciences
Name and Status of Other Investigators:
R.J. Keegan MSc. BSc. (Hons) – Sport and Exercise Sciences –R.J.Keegan@lboro.ac.uk
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Dr. C.M. Spray - Sport and Exercise Sciences – C.M.Spray@lboro.ac.uk
Department Sport and Exercise Sciences

Title of Investigation

Cultivating the grassroots - Shaping environments to help motivate developing players: Phase 1 – A qualitative investigation

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Section A: Investigators

Do investigators have previous experience of, and/or adequate training in, the methods employed?	Yes	No**
Will junior researchers/students be under the direct supervision of an experienced member of staff?	Yes	No**
Will junior researchers/students be expected to undertake physically invasive procedures (not covered by a generic protocol) during the course of the research?	Yes**	No
Are researchers in a position of direct authority with regard to participants (eg academic staff using student participants, sports coaches using his/her athletes in training)?	Yes**	No

** If you ONLY select answers marked **, please submit your completed Ethical Advisory Checklist accompanied by a statement covering how you intend to manage the issues (indicated by selecting a ** answer) to the Ethical Advisory Committee.

Section B: Participants

Vulnerable Groups

Will participants be knowingly recruited from one or more of the following vulnerable groups?

Children under 18 years of age (please refer to published guidelines)	Yes*	No
People over 65 years of age	Yes*	No
Pregnant women	Yes*	No
People with mental illness	Yes*	No
Prisoners/Detained persons	Yes*	No
Other vulnerable group (please specify _____)	Yes*	No

* Please submit a full application to the Ethical Advisory Committee.

Chaperoning Participants

If appropriate, eg studies which involve vulnerable participants, taking physical measures or intrusion of participants' privacy:

Will participants be chaperoned by more than one investigator at all times?	Yes	No*	N/A
Will at least one investigator of the same sex as the participant(s) be present throughout the investigation?	Yes	No*	N/A
Will participants be visited at home?	Yes*	No	N/A

* Please submit a full application to the Ethical Advisory Committee.

If you have selected N/A please provide a statement in the space below explaining why the chaperoning arrangements are not applicable to your research proposal:

The study uses interviews and focus groups and there are no physical measurements or intrusion. Therefore the presence of multiple investigators or same-sex investigators may not be necessary. Interviews and focus groups will be conducted in public areas (club-house restaurants, classrooms etc) and teachers/coaches/parents may request to be present in all cases.

Advice to Participants following the investigation
Investigators have a duty of care to participants. When planning research, investigators should consider what, if any, arrangements are needed to inform participants (or those legally responsible for the participants) of any health related (or other) problems previously unrecognised in the participant. This is particularly important if it is believed that by not doing so the participants well being is endangered. Investigators should consider whether or not it is appropriate to recommend that participants (or those legally responsible for the participants) seek qualified professional advice, but should not offer this advice personally. Investigators should familiarise themselves with the guidelines of professional bodies associated with their research.

Section C: Methodology/Procedures

To the best of your knowledge, please indicate whether the proposed study:

Involves taking bodily samples (please refer to published guidelines)	Yes †	No
Involves procedures which are likely to cause physical, psychological, social or emotional distress to participants	Yes †	No
Is designed to be challenging physically or psychologically in any way (includes any study involving physical exercise)	Yes †	No
Exposes participants to risks or distress greater than those encountered in their normal lifestyle	Yes*	No
Involves collection of body secretions by invasive methods	Yes*	No
Prescribes intake of compounds additional to daily diet or other dietary manipulation/supplementation	Yes*	No
Involves testing new equipment	Yes*	No
Involves pharmaceutical drugs (please refer to published guidelines)	Yes*	No
Involves use of radiation (please refer to published guidelines. Investigators should contact the University's Radiological Protection Officer before commencing any research which exposes participants to ionising radiation – e.g. x-rays).	Yes*	No
Involves use of hazardous materials (please refer to published guidelines)	Yes*	No
Assists/alters the process of conception in any way	Yes*	No
Involves methods of contraception	Yes*	No
Involves genetic engineering	Yes*	No

* Please submit a full application to the Ethical Advisory Committee

† If the procedure is covered by an existing generic protocol, please insert reference number here __
If the procedure is not covered by an existing generic protocol, please submit a full application to the Ethical Advisory Committee.

Section D: Observation/Recording

Does the study involve observation and/or recording of participants? If yes please complete the rest of section D.	Yes	No
Will those being observed and/or recorded be informed that the observation and/or recording will take place?	Yes	No*

* Please submit a full application to the Ethical Advisory Committee

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Section E: Consent and Deception

Will participants give informed consent* freely?	Yes	No*

If yes please complete the ***Informed Consent*** section below.
*If no, please submit a full application to the Ethical Advisory Committee.

*Note: where it is impractical to gain individual consent from every participant, it is acceptable to allow individual participants to "opt out" rather than "opt in".

Informed Consent

Will participants be fully informed of the objectives of the investigation and all details disclosed (preferably at the start of the study but where this would interfere with the study, at the end)?	Yes	No*
Will participants be fully informed of the use of the data collected (including, where applicable, any intellectual property arising from the research)?	Yes	No*

For children under the age of 18 or participants who have impairment of understanding or communication:

- will consent be obtained (either in writing or by some other means)?	Yes	No*	N/A
- will consent be obtained from parents or other suitable person?	Yes	No*	N/A
- will they be informed that they have the right to withdraw regardless of parental/ guardian consent?	Yes	No*	N/A
For investigations conducted in schools, will approval be gained in advance from the Head-teacher and/or the Director of Education of the appropriate Local Education Authority?	Yes	No*	N/A
For detained persons, members of the armed forces, employees, students and other persons judged to be under duress, will care be taken over gaining freely informed consent?	Yes	No*	N/A

* Please submit a full application to the Ethical Advisory Committee

Does the study involve deception of participants (ie withholding of information or the misleading of participants) which could potentially harm or exploit participants?	Yes	No

If yes please complete the ***Deception*** section below.

Deception

Is deception an unavoidable part of the study?	Yes	No*
Will participants be de-briefed and the true object of the research revealed at the earliest stage upon completion of the study?	Yes	No*

Has consideration been given on the way that participants will react to the withholding of information or deliberate deception?	Yes	No*

* Please submit a full application to the Ethical Advisory Committee

Section F: Withdrawal

Will participants be informed of their right to withdraw from the investigation at any time and to require their own data to be destroyed?	Yes	No*

* Please submit a full application to the Ethical Advisory Committee

Section G: Storage of Data and Confidentiality

Please see University guidance on Data Collection and Storage.

Will all information on participants be treated as confidential and not identifiable unless agreed otherwise in advance, and subject to the requirements of law?	Yes	No*
Will storage of data comply with the Data Protection Act 1998? (Please refer to published guidelines)	Yes	No*
Will any video/audio recording of participants be kept in a secure place and not released for use by third parties?	Yes	No*
Will video/audio recordings be destroyed within six years of the completion of the investigation?	Yes	No*

* Please submit a full application to the Ethical Advisory Committee

Section H: Incentives

Have incentives (other than those contractually agreed, salaries or basic expenses) been offered to the investigator to conduct the investigation?	Yes**	No
Will incentives (other than basic expenses) be offered to potential participants as an inducement to participate in the investigation?	Yes**	No

** If you ONLY select answers marked **, please submit your completed Ethical Advisory Checklist accompanied by a statement covering how you intend to manage the issues (indicated by selecting a ** answer) to the Ethical Advisory Committee.

Compliance with Ethical Principles

If you have completed the checklist to the best of your knowledge without selecting an answer marked with * or † your investigation is deemed to conform with the ethical checkpoints and you do not need to seek formal approval from the University's Ethical Advisory Committee.

Please sign the declaration below, and lodge the completed checklist with your Head of Department or his/her nominee.

Declaration
I have read the University's Code of Practice on Investigations on Human Participants. I confirm that the above named investigation complies with published codes of conduct, ethical principles and guidelines of professional bodies associated with my research discipline.

Signature of Responsible Investigator

Signature of Student (if appropriate)
Signature of Head of Department or his/her nominee

Date

If the provision for Compliance with Ethical Principles does not apply, please proceed to the ***Guidance from Ethical Advisory Committee*** section below.

Guidance from Ethical Advisory Committee

If, upon completion of the checklist you have ONLY selected answers marked **, please submit your completed Ethical Advisory Checklist accompanied by a statement covering how you intend to manage the issues (indicated by selecting a ** answer) to the Ethical Advisory Committee.
If, upon completion of the checklist, you have selected an answer marked with * or † it is possible that an aspect of the proposed investigation does not conform to the ethical principles adopted by the University. Therefore you are requested to complete a full submission to the Ethical Advisory Committee. You should aim to complete the entire form in brief but need only provide specific detail on the questions which relate directly to the issues for which you have selected an answer marked * or † on the checklist. A copy of this checklist, signed by your Head of Department should accompany the full submission to the Ethical Advisory Committee. Please contact the Secretary if you have any queries about completion of the form. The relevant application form can be downloaded from the Committee's web page.

Signature of Responsible Investigator _____

Signature of Student (if appropriate) _____

Signature of Head of Department or his/her nominee
_____

Date _____

Appendix B – Head-teacher recruitment letter

Tel: 07811 398830
e-mail: R.J.Keegan@lboro.ac.uk

7th June 2005

Dear Headteacher,

I am a PhD research student at Loughborough University interested in children's achievement motivation in sport. The purpose of my research is to understand more about the social environments that surround children playing sports and how these influence children's motivation.

The work I am doing is in partnership with the English Football Association who are interested in the nature of these environments, how they change as children develop and the effects on motivation, enjoyment and ability/improvement. As a result I am looking to recruit children in the range of seven to eighteen years.

I am writing to ask you if you would agree for your school to participate in the research. This would involve the collection of data from children at your school either in the remainder of this summer term, or in September in the new school year.

In this study, the younger participants will be interviewed in small groups whereas those over fifteen years of age may be interviewed individually but in public areas. Parental consent will be sought (see attached letter). Parents may also request to be present if they have any concerns. Alternatively I can arrange for a female chaperone. I have CRB enhanced disclosure and I will forward a copy of this once I receive my copy from the University.

Interviews will be taped and transcribed and then analysed for recurring themes. Group and individual interviews are expected to last one hour based on recent piloting.Neither the school nor any individual will be identifiable in any publications arising from the research findings. Full ethical consent has already been granted by the University's Ethical Committee.

Please return the attached consent slip or contact me by telephone/e-mail if you would like to be part of this study. Disruption to classes should be minimal as only a small number of children from each year would be requested to participate in a single interview/focus group. It is important, however, to select children who participate in sport outside of school. In return, I can offer sport based workshops for teachers or pupils. For example, I could present back the findings and illustrate their relevance to PE teaching. Also feel free to contact my supervisor Dr. David Lavallee: D.E.Lavallee@lboro.ac.uk or 01509226328

Yours faithfully

Richard Keegan MSc. BSc. (Hons)

School of Sport and Exercise Sciences
Loughborough University
Loughborough
LE11 3TU

Appendix C – Academy director recruitment letter

Tel: 07811 398830
e-mail: R.J.Keegan@lboro.ac.uk

15th November 2005

Dear Academy Director,

I am a PhD research student at Loughborough University interested in footballers' achievement motivation in sport. The purpose of my research is to understand more about the social environments that surround children playing sports and how these influence motivation, which in turn influences involvement, enjoyment, learning and fair play.

The work I am doing is in partnership with the English Football Association who are interested in the nature of these environments, how they change as children develop and the effects on motivation, enjoyment and ability/improvement. As a result I am looking to interview players from the age of seven years old and upwards, including professional players.

I am writing to ask you if you would agree for your academy to participate in the research. The first stage would involve the collection of data from children at your academy in the period between now and March.

In this first study, the younger participants will be interviewed in small groups whereas those over fifteen years of age may be interviewed individually but in public areas. Parental consent will be sought (see attached letter). Parents may also request to be present if they have any concerns. I have obtained CRB enhanced disclosure, of which I can forward a copy on request.

Interviews will be taped and transcribed and then analysed for recurring themes. Group and individual interviews are expected to last one hour based on recent piloting. Neither the academy nor any individual will be identifiable in any publications arising from the research findings. Full ethical consent has already been granted by the University's Ethical Committee.

Please contact me by telephone/e-mail if you would like to be part of this study. Disruption to planned sessions should be minimal as only a small number of players from each year would be requested to participate in a single interview/focus group.

Yours faithfully

Richard Keegan MSc. BSc. (Hons)

Also feel free to contact my supervisor Dr. David Lavallee: D.E.Lavallee@lboro.ac.uk or 01509226328.

Appendix D – Parent recruitment letter

7th June 2005

Dear Parent/Carer,

My name is Richard Keegan and I am conducting research at Loughborough University into children's motivation in sport. I am working in partnership with the English Football Association to examine how we can create environments that foster enjoyment, participation, effort and improvement in developing sport performers.

The head teacher has agreed to allow me to conduct this research within the school and your child has been recommended due to his/her involvement in sport outside of school. However, in line with Loughborough University procedures to safeguard good practice, it is important to gain your permission for your child to participate in the study.

Children will be interviewed in small focus groups and asked about what motivates them in their sports. These are predicted to last one hour based on recent pilot studies. All information collected is strictly confidential and no individual will be identifiable in any publication arising from the research. Full ethical clearance and CRB checking has been obtained in the planning of this study.

If you **do not** wish for your child to participate in this study please complete the attached slip and return it to the PE staff at the school via your son/daughter. If you are happy for your child to participate but would like to be present to observe the interview **or** for a female chaperone to be present, please complete the second slip and return it to the address provided below.

Yours faithfully,

Richard Keegan MSc. BSc. (Hons)

School of Sport and Exercise Sciences
Loughborough University
Loughborough
LE11 3TU

Dr. David Lavallee (Research supervisor)
E-mail: D.E.Lavallee@lboro.ac.uk
Tel: 01509 226328

I **do not** give permission for _____ (form group ___) to participate in the research study outlined above.

Signed: _____ (Parent/Carer)

I am happy for _____ (form group ___) to participate in the research study outlined above, but I would like (to be present to observe / a female chaperone present)*

Signed: _____ (Parent/Carer)

*delete as appropriate

Appendix E – Informed consent form

Cultivating the grassroots - Shaping environments to help motivate developing players: Phase 1 – A qualitative investigation

INFORMED CONSENT FORM

The purpose and details of this study have been explained to me. I understand that this study is designed to further scientific knowledge and that all procedures have been approved by the Loughborough University Ethical Advisory Committee.

I have read and understood the information sheet and this consent form.

I have had an opportunity to ask questions about my participation.

I understand that I am under no obligation to take part in the study.

I understand that I have the right to withdraw from this study at any stage for any reason, and that I will not be required to explain my reasons for withdrawing.

I understand that all the information I provide will be treated in strict confidence.

I agree to participate in this study.

Your name _____

Your signature _____

Signature of investigator _____

Date _____

Appendix F – Original interview schedule

FACTORS INFLUENCING MOTIVATION IN THE SPORTING ENVIRONMENT

Part A – Player and Athlete Interview Guide

Introduction

The purpose of the study is to identify and examine those factors within the environment that are perceived to affect the motivation of players and performers within it.

This study will use a tape recorded [interview/focus group] format to obtain information about factors related to motivation. It will take 45-60 minutes to complete. *You are under no obligations to participate, and if at any time you do not feel comfortable with the questions being asked you may withdraw. All information given will be kept strictly confidential.*

Explain core concepts of approach-avoidance and performance-mastery.

Demographics and Tournament Background

1. Age/months:_____ Years playing:_____ Level reached:(Club, county, district, national)

2 .a) Main sport: _____ Other sports? _____

b) Is there anything unique or special about playing with this club/team? (More of an ice-breaker)

Coach influences

3. How does your coach normally try to motivate you in your sport? E.g. to try harder, to do a certain task, or to carry on after a failure?

4. What things can/does your coach do/say to make you feel extremely positive and want to do your best? [Approach motivation]

5. What things can/does your coach do/say to make you feel negative and concerned about not messing up? [Avoidance motivation]

6. What things can/does your coach do/say to make you compare yourself to other players and focus on out-performing other players? [Performance emphasis]

7. What things can/does your coach do/say to make you focus on yourself, your own improvement and not to worry about other players around you? [Mastery emphasis]

8. Can you think of examples where your coach might have made you feel [performance-approach, performance-avoidance, mastery-approach, mastery-avoidance]?

Parental [+significant other?] influences

9. How do your parents normally try to motivate you in your sport? E.g. to try harder, to do a certain task, or to carry on after a failure?

10. What things can/do your parents do/say to make you feel extremely positive and want to do your best? [Approach motivation]

11. What things can/do your parents do/say to make you feel negative and concerned about not messing up? [Avoidance motivation]

12. What things can/do your parents do/say to make you compare yourself to other players and focus on out-performing other players? [Performance emphasis]

13. What things can/do your parents do/say to make you focus on yourself, your own improvement and not to worry about other players around you? [Mastery emphasis]

14. Can you think of examples where your parents might have made you feel [performance-approach, performance-avoidance, mastery-approach, mastery-avoidance]?

Peer influences

15. How do other players normally try to motivate you in your sport? E.g. to try harder, to do a certain task, or to carry on after a failure?

16. What things can/do other players do/say to make you feel extremely positive and want to do your best? [Approach motivation]

17. What things can/do other players do/say to make you feel negative and concerned about not messing up? [Avoidance motivation]

18. What things can/do other players do/say to make you compare yourself to other each other and focus on out-performing other players? [Performance emphasis]

19. What things can/do other players do/say to make you focus on yourself, your own improvement and not to worry about other players around you? [Mastery emphasis]

20. Can you think of examples where other players might have made you feel [performance-approach, performance-avoidance, mastery-approach, mastery-avoidance]?

21. Can you think of ways you could make others around you feel [performance-approach, performance-avoidance, mastery-approach, mastery-avoidance]?

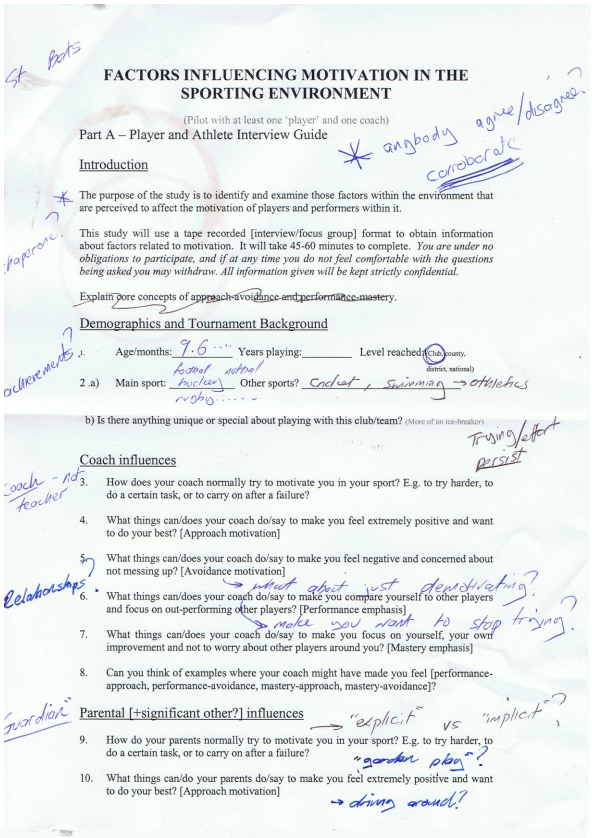
Miscellaneous

22. What advice would you give coaches or parents if they want to help you stay motivated all the time? Like after a failure or if they want you to try hard?

23. What *other things* in the environment can affect your motivation/energy and make you want to try harder or even less hard?

24. What's the most important thing in making you want to try really hard and never give up?

Appendix G – Examples of appended interview schedules



FACTORS INFLUENCING MOTIVATION IN THE SPORTING ENVIRONMENT

(Pilot with at least one 'player' and one coach)

Part A – Player and Athlete Interview Guide

Introduction

The purpose of the study is to identify and examine those factors within the environment that are perceived to affect the motivation of players and performers within it.

This study will use a tape recorded [interview/focus group] format to obtain information about factors related to motivation. It will take 45-60 minutes to complete. *You are under no obligations to participate, and if at any time you do not feel comfortable with the questions being asked you may withdraw. All information given will be kept strictly confidential.*

Explain core concepts of approach-avoidance and performance-mastery.

Demographics and Tournament Background

1. Age/months: 9.6 Years playing:_____ Level reached:(Club, county, district, national)

2 .a) Main sport: hockey Other sports? Cricket, swimming → athletics

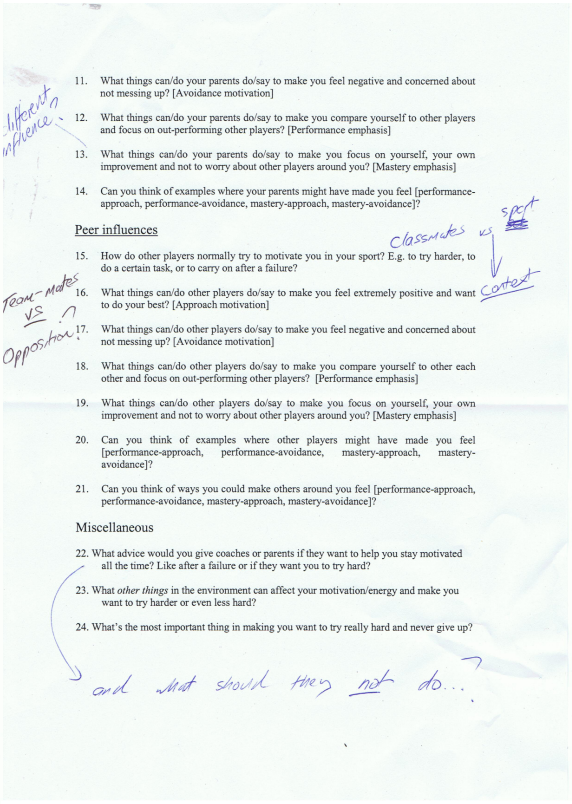
b) Is there anything unique or special about playing with this club/team? (More of an ice-breaker)

Coach influences

3. How does your coach normally try to motivate you in your sport? E.g. to try harder, to do a certain task, or to carry on after a failure?
4. What things can/does your coach do/say to make you feel extremely positive and want to do your best? [Approach motivation]
5. What things can/does your coach do/say to make you feel negative and concerned about not messing up? [Avoidance motivation]
6. What things can/does your coach do/say to make you compare yourself to other players and focus on out-performing other players? [Performance emphasis]
7. What things can/does your coach do/say to make you focus on yourself, your own improvement and not to worry about other players around you? [Mastery emphasis]
8. Can you think of examples where your coach might have made you feel [performance-approach, performance-avoidance, mastery-approach, mastery-avoidance]?

Parental [+significant other?] influences

9. How do your parents normally try to motivate you in your sport? E.g. to try harder, to do a certain task, or to carry on after a failure?
10. What things can/do your parents do/say to make you feel extremely positive and want to do your best? [Approach motivation]



11. What things can/do your parents do/say to make you feel negative and concerned about not messing up? [Avoidance motivation]
12. What things can/do your parents do/say to make you compare yourself to other players and focus on out-performing other players? [Performance emphasis]
13. What things can/do your parents do/say to make you focus on yourself, your own improvement and not to worry about other players around you? [Mastery emphasis]
14. Can you think of examples where your parents might have made you feel [performance-approach, performance-avoidance, mastery-approach, mastery-avoidance]?

Peer influences

15. How do other players normally try to motivate you in your sport? E.g. to try harder, to do a certain task, or to carry on after a failure?
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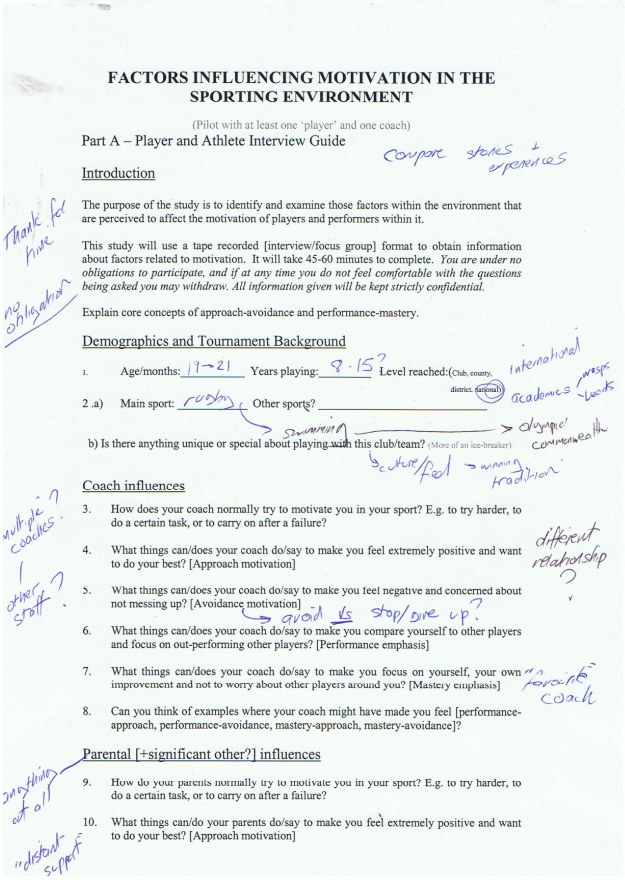
19. What things can/do other players do/say to make you focus on yourself, your own improvement and not to worry about other players around you? [Mastery emphasis]
20. Can you think of examples where other players might have made you feel [performance-approach, performance-avoidance, mastery-approach, mastery-avoidance]?
21. Can you think of ways you could make others around you feel [performance-approach, performance-avoidance, mastery-approach, mastery-avoidance]?

Miscellaneous

22. What advice would you give coaches or parents if they want to help you stay motivated all the time? Like after a failure or if they want you to try hard?
23. What *other things* in the environment can affect your motivation/energy and make you want to try harder or even less hard?
24. What's the most important thing in making you want to try really hard and never give up?



FACTORS INFLUENCING MOTIVATION IN THE SPORTING ENVIRONMENT

(Pilot with at least one 'player' and one coach)

Part A – Player and Athlete Interview Guide

Introduction

The purpose of the study is to identify and examine those factors within the environment that are perceived to affect the motivation of players and performers within it.

This study will use a tape recorded [interview/focus group] format to obtain information about factors related to motivation. It will take 45-60 minutes to complete. *You are under no obligations to participate, and if at any time you do not feel comfortable with the questions being asked you may withdraw. All information given will be kept strictly confidential.*

Explain core concepts of approach-avoidance and performance-mastery.

Demographics and Tournament Background

1. Age/months: 17→21 Years playing: 8-15? Level reached:(Club, county, district, national)

2 .a) Main sport: rugby Other sports? swimming → olympic/commonwealth

b) Is there anything unique or special about playing with this club/team? (More of an ice-breaker)

Coach influences

3. How does your coach normally try to motivate you in your sport? E.g. to try harder, to do a certain task, or to carry on after a failure?
4. What things can/does your coach do/say to make you feel extremely positive and want to do your best? [Approach motivation]
5. What things can/does your coach do/say to make you feel negative and concerned about not messing up? [Avoidance motivation]
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8. Can you think of examples where your coach might have made you feel [performance-approach, performance-avoidance, mastery-approach, mastery-avoidance]?

Parental [+significant other?] influences

9. How do your parents normally try to motivate you in your sport? E.g. to try harder, to do a certain task, or to carry on after a failure?
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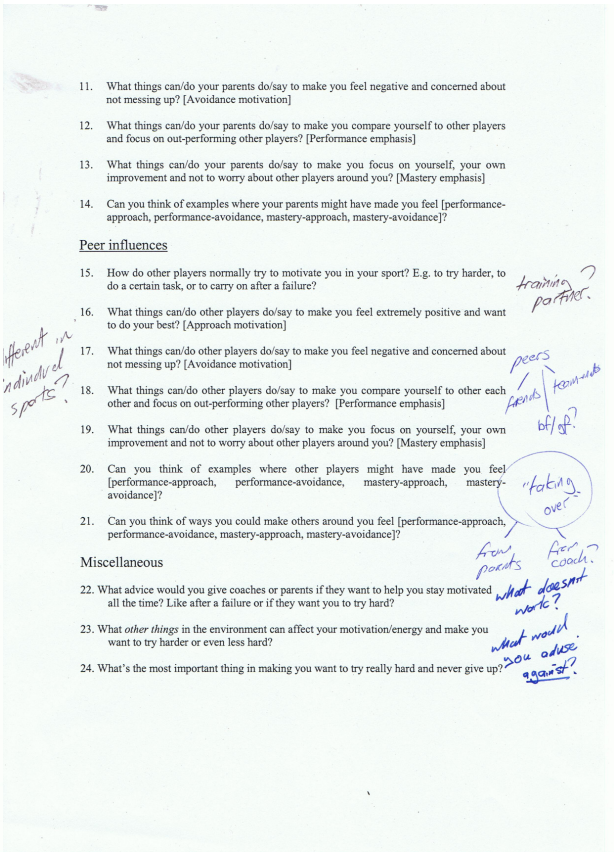

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Peer influences

15. How do other players normally try to motivate you in your sport? E.g. to try harder, to do a certain task, or to carry on after a failure?
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Miscellaneous

22. What advice would you give coaches or parents if they want to help you stay motivated all the time? Like after a failure or if they want you to try hard?
23. What *other things* in the environment can affect your motivation/energy and make you want to try harder or even less hard?
24. What's the most important thing in making you want to try really hard and never give up?

Appendix H – Three example interview transcripts

Appendix Hi – Initiation example

St Bart's Primary School – Year 3 – Initiation Stage

- Pauses, interruptions or changes in direction of sentence are represented by: (…)
- Comments on the type of speech and/or background sounds transcribed as: (all talking together), (laughter), (pause).
- I = INTERVIEWER
- F / M = FEMALE RESPONDENT

I – If we start off with yourself George, what's your name and what's your date of birth?

M-7-SOCCER/RUGBY-INIT – Um, my name's _____ and my date of birth is 22nd of June.

I – And the year?

M-7-Soccer/Rugby-Init – 1998

I – Really

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – How old are you?

M-7-Soccer/Rugby-Init – Seven.

I – Ok that's great.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Then 1998.

I – Um, and _____, Oh sorry what are you're favourite sports _____ what do you play?

M-7-SOCCER/RUGBY-INIT – Um, I play football and I like playing rugby

I – Ok great, sorry Emma go on.

F-8-CROSSCOUNTRY/SOCCER-INIT – Um, My names _____, I'm 8 years old I was born on the first of November, um 1997

I – And your favourite sports?

F-8-CROSSCOUNTRY/SOCCER-INIT – My favourite sports are rugby, football, and swimming

I – Brilliant thank-you. Any more?

F-8-CROSSCOUNTRY/SOCCER-INIT – Oh yeah and cross country

I – Ok. Cool. Sam.

M-8-SOCCER/RUGBY/SWIM-INIT – My name's _____ I'm 8 years old and I was born on the 19th of January 1997, Football, tag rugby and swimming.

I – Brilliant ok, _____

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – My name's _____, I'm 8 years old, my birth is in the 18th of November 1997

I – And your favourite sports? What are the ones that you play most of the time?

F-8-crosscountry/swim/gymn-County – Tennis and cross country.

I – Ok cross country

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – I'm really good at cross country

I – Ok. Good, is there any more that you play in spare time?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Football, tennis

I – Wow sporty

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Swimming, gymnastics.

I – Ok, _____.

M-8-SOCCER/SWIM-INIT – Um, my name's _____ Um, I was born on the 23rd of September 1997, um my favourite sports are football. And Swimming

I – Alright, ok. So, we're talking about all these other people who influence how hard you want to try and we'll start off talking about the coach. Normally, and I guess you'll all have answers so put your hand up and I'll try and come round, alright, or just do that like a lazy one, or whatever, um, normally what does a coach do to try and get you to try hard? Go on then

M-8-SOCCER/RUGBY/SWIM-INIT – He gets us doing techniques with our team-mates including George Wells, and then

I – So you practice techniques then?

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah

I – Ok, um, yeah

F-8-CROSSCOUNTRY/SOCCER-INIT – He bribes them

I – Ok how does he bribe them?

F-8-CROSSCOUNTRY/SOCCER-INIT – Um take a thousand pounds and do whatever you want with it

I – He doesn't do that does he. What's realistic what would he really do?

M-7-SOCCER/RUGBY-INIT – He would like give out sweets and he would shout at you like do this do that.

I – Ok.

F-8-CROSSCOUNTRY/SOCCER-INIT – If you don't do that you'll be sent off the pitch for a year.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – That would be a red card

I – Ok is that what really happens?

F-8-CROSSCOUNTRY/SOCCER-INIT – That's what happened for Phillip (??) on Sunday. He's had about three red cards.

??? – Twenty Five actually.

I – Ok so he can offer people sweets or rewards, and sometimes he can say ok if you don't do it you're gonna have to go and sit on the side. Is that right?

M-8-SOCCER/RUGBY/SWIM-INIT – Mmm yeah.

M-7-SOCCER/RUGBY-INIT – And um also they say just play, play your best play your hardest I don't care if you lose, they're really good to you, if you try really hard.

I – Ok.

M-8-SOCCER/SWIM-INIT – Ok like they said that last time when we were playing the team who was top of the league like so.

I – Ok how does that make you feel when they say that?

M-8-SOCCER/SWIM-INIT – Yeah we, we're in fourth place, brilliant! Like that

I – Like easy we can just go and do this?

M-8-SOCCER/SWIM-INIT – Yeah (what place are we?)

I – Ok Emma did you have one?

F-8-crosscountry/soccer-Init – No.

I – Oh has it gone Ok I thought I saw your hand go up, to start off with. Ok I'll ask here instead. So, simple question, what can a coach do that makes you want to try? Is there anything else on that or have we got most of it?

M-8-SOCCER/RUGBY/SWIM-INIT – Um well usually he says things like, if you can beat this team then you might beat that team and you can beat loads and loads of teams.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – If you beat this team you'll beat the other team.

M-7-SOCCER/RUGBY-INIT – If you beat this team then you'll be able to beat any other team.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – It depends what team is at the top of the league (Laughter)

M-8-SOCCER/RUGBY/SWIM-INIT – No one-one (response to a whisper)

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – just keep going I think you're the best.

M-8-SOCCER/SWIM-INIT – The team that we played was fifth in the league and we were bottom and then we at them at the bottom, we won four….

I – Ok so by saying if you can beat this team that'll be really good, (if you can beat…) Does that make you feel good?

Several: Yeah.

I – Like you wanna go out there and beat them?

M-8-SOCCER/RUGBY/SWIM-INIT – The only reason I get goals is because I've got my lucky boots on, I'm wearing them all the time.

F-8-CROSSCOUNTRY/SOCCER-INIT – or you can foul, you beat them

I – Ok, so if we stick with that kind of idea. This idea of, we're gonna play really well, I feel great I'm not at all worried, I'm gonna go and do my best. How can a coach do that, in any sport, how can a coach make you

M-8-SOCCER/SWIM-INIT – Make you. Say how good you are, like highlight, when you've been in positions and things like that

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah and as you get older and you get to like football then you can be put in any other position you like

M-8-SOCCER/SWIM-INIT – They won't persuade you to be put in any position like if you're really rubbish at goalkeeper then they won't persuade you to go in goal, they might ask you where (being interrupted by F)

I – Ok, so you've got almost what was it, co-operating with you and asking what you want to do?

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah

I – And also sort of building you up and saying what was it, I forgot what you said?

M-8-SOCCER/SWIM-INIT – Um persuading you.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Just let your team decide what they wanna do

I – Ok, what was your question I thought you had a question in between

F-8-CROSSCOUNTRY/SOCCER-INIT – What else are we gonna be doing? Like…

I – We're gonna talk about all these different people basically and that's gonna be it.

F-8-CROSSCOUNTRY/SOCCER-INIT – So we're gonna talk about teams as well?

M-8-SOCCER/RUGBY/SWIM-INIT – Um, Liverpool, um, Man U.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Not Chelsea!

I – So I need to know (chatter) I need to know what makes everyone want to try hard because I'm working for the University and the English FA, so I need to go back to you and ask

M-8-SOCCER/RUGBY/SWIM-INIT – I know what makes me try hard, it's um when my football team win it makes me play my hardest the next day cos um like my favourite football team Man United always play on Saturdays and we get league matches on Sundays so that can make me try harder.

M-7-SOCCER/RUGBY-INIT – What really makes me try hard is that loads of people are watching you and if you kind of mess up and things then you might look really silly.

I – Ok.

M-8-SOCCER/SWIM-INIT – Oh last time when we played Shepshed, cos when we played Shepshed Crusaders, they were shouting like mad you could hardly hear yourself think.

F-8-CROSSCOUNTRY/SOCCER-INIT – The thing that makes me try hard is when like there's other people running and there's this girl that always beats me and I always try hard to beat her but she always wins by a mile.

I – And so you want to try and beat her? (Yeah) Ok, is that something that's come from within you or is that something that someone's said like you should try and beat her?

F-8-CROSSCOUNTRY/SOCCER-INIT – Something that I did.

I – And does she make you wanna beat her, does she like at all….

F-8-CROSSCOUNTRY/SOCCER-INIT – She's full of herself.

I – Oh ok.

F-8-CROSSCOUNTRY/SOCCER-INIT – She just struts around

M-8-SOCCER/RUGBY/SWIM-INIT – I want to get to the top of the league so that's why I play really hard

M-7-Soccer/Rugby-Init – I just wanna go and play

(chatter/debate – indecipherable)

I – Ok, ok…. Can I just cut in, it's really helpful for me if we try and speak one at a time, cos otherwise I can't make out what we said on the tape afterwards and I've gotta try and tape it all so if we try and speak on at a time that'd be so much more helpful for me. What I wanted to ask was when someone said about crowds, sometimes a crowd can make you worry as you say 'I don't want to mess up I don't want to look silly` but as you were saying it can make you want to try harder and shoe off, how can… what's the difference? Can you have a nice crowd or an annoying crowd? What's the difference? Go on

M-7-Soccer/Rugby-Init – Annoying crowd

M-8-SOCCER/RUGBY/SWIM-INIT – Um, an annoying crowd sometimes make you like yeah I'm gonna get this team because they're not very nice

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Yeah, yeah and like

M-8-SOCCER/RUGBY/SWIM-INIT – but if it's a nice crowd then you think ok, ok they're ok we don't need to really um push hard we don't really need to push them around or anything like that because they're being really hard.

M-8-SOCCER/SWIM-INIT – We played the team in second place but we won them last time so we're gonna win them again

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah we won 5-0.

I – Ok um,

M-8-SOCCER/SWIM-INIT – No um Sileby Sharks

I – What about, since we started talking about it, that thing I said earlier about being worried about messing up, being worried about making a mistake. Um, how can, how can someone make you feel that way? How can any of these, well how can a coach

M-8-SOCCER/RUGBY/SWIM-INIT – My dad trains me, in my garden, and shouts and me for not being a very good sport and really, you know… shouts.

M-8-SOCCER/SWIM-INIT – People shout from the lines at of the pitch

I – Is this parents or…

M-8-SOCCER/SWIM-INIT Um the parents when we're playing the football match and it they try to give us confidence so we eventually win

F-8-CROSSCOUNTRY/SOCCER-INIT – They're, they're so

I – Ok I'm gonna go, well I heard Emma start talking so I'll go there and then straight to you

F-8-CROSSCOUNTRY/SOCCER-INIT – Pressure really

I – Ok so how does that happen

F-8-CROSSCOUNTRY/SOCCER-INIT - They go like you'd better beat this team otherwise we're the bottom of the league

I – Ok. So it's quite often just saying it

Several talk together

M-8-SOCCER/SWIM-INIT – We were put straight to the bottom of the league, by a flukey goal

I – Ok Sam

M-8-SOCCER/RUGBY/SWIM-INIT – Um, sometimes they can get, the coaches, they can be not very good mentors and they can really, hurt your feelings when they shout at you, I hate shouting

M-8-SOCCER/SWIM-INIT – Our coaches are good. Um, they don't, I remember a Sunday night at a really bad team I remember him (opposition coach?] like shouting at them most of it. Cos we played the under nines

I – Ok these are a distraction I'm gonna take these back

?? – Ow.

I – Sam what were you saying you sere still talking, about coaches being bad mentors who shouted

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah well he sometimes what they do is they shout at you and they shout at the ref, and the ref is just doing something good and, what happens is there's a free kick easily given cos someone's taken legs out and they go 'ref they should be off!' really loud and

(shouted imitation, possibly from M-8-SOCCER/SWIM-INIT)

I – Ok and you said you hated shouting as well

M-7-SOCCER/RUGBY-INIT – And I get really furious when people foul our team and that, (angry growl) I'm gonna get him

I – Ok.

M-7-SOCCER/RUGBY-INIT – And when they do the, um, the, um

M-8-SOCCER/SWIM-INIT – The thing that annoys me is sometimes the ref.

I – Go on Alex, go on

M-8-SOCCER/SWIM-INIT - The thing that annoys me is sometimes the refs, because , when somebody tried to dribble up and the ref's in front of them he has to go like that and we like bang into his legs.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – The ref makes me mad when he keeps on making bad decisions and they gave one girl a red card

F-8-CROSSCOUNTRY/SOCCER-INIT – A red card?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Yeah and

F-8-CROSSCOUNTRY/SOCCER-INIT – They should like penalise refs and say like if the ref should go on anymore or like instead of the ref they, have to stop it and say ten out of ten or I don't want them to go on, none our of ten I want them to go on, 5 out of ten, hmmmm.

I – Ok I wanna carry on talking about coaches for a minute, now some of you have started saying like 'we're gonna beat this team' or we're gonna win or whatever it is, and sometimes coaches talk about that sort of thing and sometimes they talk about….. well lets focus on that now. What do coaches say or do that focuses you on the result? We must win we can't lose, that kind of thing, go on

M-8-SOCCER/SWIM-INIT – When we went to the bottom of the league mum and dad were really pushing me hard and we lost by a flukey goal but it was really flukey, it went one went, went the other way and went in the other side. It really confused the keeper.

I – Ok so was that the coach or the parents?

M-8-SOCCER/SWIM-INIT – It was my parents they really put pressure on me.

I – Ok how did they put pressure on you?

M-8-SOCCER/SWIM-INIT – They really just said you've got to win, you've got to win, those sort of things (banging table)

I – Ok so it was what they said

F-8-CROSSCOUNTRY/SOCCER-INIT – They were pressurising you Alex.

I – Go on then

F-8-CROSSCOUNTRY/SOCCER-INIT – The refs count but like the coaches can put pressure on, well what the coaches *should* say is just try your hardest and do your best.

I – Yep, exactly.

M-8-SOCCER/SWIM-INIT – And be all soppy

F-8-CROSSCOUNTRY/SOCCER-INIT – Shut up

M-8-SOCCER/RUGBY/SWIM-INIT – Some coaches, even my mum and dad, and even the people that are the coach's people, they even say that they're not very nice cos they keep on shouting like he won't let you be a full man and do things that you want.

M-8-soccer/swim-init – My coach,

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY - what is that?

I – That's a digital one and that's a tape one

F-8-crosscountry/swim/gymn-County – Hellooooooooo (into microphone)

I – Don't do that, go on Alex

M-8-SOCCER/SWIM-INIT – My coach is um, he'd say don't put your head down just because they've scored one goal, they keep trying to think that we can win it easily.

I – Ok

M-8-SOCCER/SWIM-INIT – And once they said that and it actually came true because they scored a goal in the first half and then we scored three. So…

I – Ok, so, as you said it's not always like a nice thing and coaches shouldn't do it you're right, but what things do people do that make you worry about messing up or whatever?

(Two speak together)

I – Hold on.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – They're like giving you um, mean words and telling you what to do and bossing you about,

M-8-SOCCER/RUGBY/SWIM-INIT – What saying the F word and the B word?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – No. Not the B word it's just mean and it's like saying if you don't try your hardest I'm gonna come and like, a woman can play better than you and that's what they [think is] trying harder, they're just shouting at you and that's making you more worried

M-7-SOCCER/RUGBY-INIT – "My gran can play better than *you*!"

I – Go on Emma.

F-8-crosscountry/soccer-Init – When they like go Boo, Boo, Boo when somebody like does something wrong, like they go like that (chatter)

I – Sorry speak up a little bit go on.

M-8-SOCCER/SWIM-INIT – Like by saying oh we're gonna go to the bottom of the league if we don't win the match. We was tempted to give up at some points, (inaudible) they was putting pressure

I – Ok. Well the other thing coaches can do is to talk to you instead about improving, and saying how good are you, what are you good at

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah that's what my coach does

I – Ok now let's try and speak one at a time, you were off on one so I'll start with you Sam and then….

M-8-SOCCER/RUGBY/SWIM-INIT – Um, well they do do that sometimes, they um, they er, they say yeah you can do this you can do that, yeah you can go there you can go in this position you can go where you like, yeah they do. They asked me where I wanted to go.

I – Do they help you develop the skills to do that?

M-7-SOCCER/RUGBY-INIT – Well they don't ask me where I want to go, Maxy says back in defence! And I'm like Oh

I – So by not talking with you and not giving you choices that's annoying

M-8-SOCCER/RUGBY/SWIM-INIT – They give me choices because they don't, they didn't really know where to put me

(two/three together)

I – Ok we're all speaking together now, what was you're point, how can coaches make you want to think about improving and doing your best?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – They did this thing where they got a big backboard and like tell you where to go and stuff and tell you like, something, you go there, and you go there, and they put it right in front of us so we can't ignore the board

M-7-SOCCER/RUGBY-INIT – Yeah but like if somebody, if somebody um does a goalie's kick and the goalie's kick runs against the whiteboard it'll rub the writing off!

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – No but they, they've stopped and got us all together at half time, you dummy.

I – so the coach does good team talks and good instructions and stuff, what was yours?

M-8-SOCCER/SWIM-INIT – Just like basketball

M-8-SOCCER/RUGBY/SWIM-INIT – Ok well my point was, was with the, what they can do is they, kind of well what was the question again?

I – Um how can you focus on yourself and your improvement and how well you play, stuff like that

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah um, what happens sometimes is they say you can pass when you're there, and when you're crowded you pass back and do things like that and if you do that then we can get a goal.

I – Ok so trying to be helpful

M-8-SOCCER/SWIM-INIT – There's a Liverpool player that I

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah they tell you things

I – Which one?

M-8-SOCCER/SWIM-INIT Sinema-Pongolle and I copy him in matches

I – He's skilful isn't he? Um did you have something on that, go on.

F-8-CROSSCOUNTRY/SOCCER-INIT – When they say you're better I feel better, I feel like I can do it.

I – So if the coach says like, what would he say that…

F-8-crosscountry/soccer-Init – He goes like this 'you'd better do this otherwise (distorted) and so I do it.

I – Ok (confused) How does he make you feel like you can win, I don't know this you see.

F-8-crosscountry/soccer-Init – I don't know it just does, it gives me a feeling inside that I can do it

I – Like you want to prove him wrong or, something or….

M-8-SOCCER/SWIM-INIT – Yeah prove him wrong yeah. Like if he says you can't do it these guys are so better than you, but then you wanna prove him wrong and like win

M-7-SOCCER/RUGBY-INIT – Like when we played the crusaders

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Did you say crusaders

M-7-SOCCER/RUGBY-INIT - yeah crusaders, We lost 3-1, so he said, you don't have to, you can lose if you want, um, and this is (talking together)

I – Ok.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – What was the question again

I – It's still talking about how the coach can make you focus on yourself and improvement and doing your best

F-8-crosscountry/swim/gymn-County – Lie he can just, like, if you've got like, if you've got, enough, like put your hand up if you've got enough courage, and then people put their hands up, and then he'll put you in better positions.

M-8-SOCCER/SWIM-INIT – What like… Striker.

I – Go on.

?? - I forgot

I – Ok I've got another question. How can a coach make you worried about doing something wrong. It might not be the result, it might not be losing, but like getting a skill wrong or

Chatter

M-8-SOCCER/RUGBY/SWIM-INIT – The most worrying match of my life was when we played Kirby Muxloe cos they were on top of us in the league, but we beat them I think.

M-7-Soccer/Rugby-Init – He said not to do something and he was getting stressed, and then he [player?] did by accident and then the coach is just like shouting at everybody and like taking him off for about five matches until he can do it properly.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – What was the question

I – Right, I was talking about being worried, but I'm talking about being worried about getting a skill wrong or a technique

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Oh yeah right I get it.

M-8-SOCCER/SWIM-INIT – In football like they can say that's completely wrong you're going to the bottom of the league if you don't win this match.

I – Ok I wanna listen to your point Sam

M-8-SOCCER/RUGBY/SWIM-INIT – Ok, well what could happen is, um, you can be worried because you've only just learned a good skill. And you can't exactly remember it, you try it, and then you lose the ball, and the coach says Oh what did you do that for? Um, and you can get worried about that because you're worried that um, you've made the coach unhappy and you're not gonna be able to go on like in the second half or something like that

I – Ok,

M-8-SOCCER/SWIM-INIT – My dad said try this new skill, when Gareth whacks that ball out from a goal kick, um, you look at the ball then turn around and try and get the ball on your knee and control it, and put it back on the ground and take it past the players and shoot, once I got that wrong and he said you *nearly* did it and I was quite happy because next time I tried it actually did it.

I – Ok good. Yes Beth

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – There's this word that I like and it's encouragement.

I – Yep, so you like being encouraged?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Yeah. And like,

(others join in – I like being encouraged…. Chatter)

M-7-SOCCER/RUGBY-INIT – Yeah except for when we're losing (chatter)

I – Hold on you two

M-7-SOCCER/RUGBY-INIT - Like people shout and stuff shouting 'you can do it' (in a Rocky/hero kind of voice)

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Try your best

I – So who's that from is it your parents or your coaches?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Yeah, your friends and family.

I – Go on Sam

M-8-SOCCER/RUGBY/SWIM-INIT – Another thing that can also make you a bit annoyed and things like that is the other coach for the other side. He can say 'they're rubbish we're much better than them! Like a million times better than them.' That's really annoying. Then you'd get out and think right I'm annoyed with this, I wanna do something about it, and then you'd really go out there and do something.

I – Ok go on Alex

M-8-SOCCER/SWIM-INIT – Um when the foxes were playing a match against me and I played for the School, Jake and Matthew, Matthew just started playing, they congratulated me after when I came on.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Do you have to keep talking about football?

I – No all sports.

F-8-CROSSCOUNTRY/SOCCER-INIT – So I can talk about cross country! Yeah!

I – If you've got a story about cross country tell me about cross country, if you've got something to say from cross country tell me about that

F-8-crosscountry/soccer-Init – Right Mrs Spray really encourages doesn't she? (Several: Yeah) Like um, 'just try your best and do whatever you can and try and get your best place.'

M-8-SOCCER/SWIM-INIT – I'm the fastest runner

Several: No you're not!

M-8-SOCCER/SWIM-INIT I'm faster than you, I'm faster than all of you! In my first…. Cross country there was about 280 people, and I can 137th.

F-8-crosscountry/soccer-Init – There were 280 people and I came 3rd.

M-8-SOCCER/RUGBY/SWIM-INIT - There were 280 people and I came 15th.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Yeah I came 4th.

I – Ok. So, do you all keep record of who came where?

All: Yeah

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY: Like they've got a big board and it says best cross country and we write it on.

I – Who is that, is it your mates doing that or is it the teachers or your parents who say oh well done you came 3rd?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Parents. Parents.

M-8-SOCCER/RUGBY/SWIM-INIT – Everybody. Everybody says good luck.

(Chatter, argument, cannot transcribe)

I – Right

M-7-SOCCER/RUGBY-INIT – One team in the boys race they kept pushing and shoving and

F-8-CROSSCOUNTRY/SOCCER-INIT – Yeah one boy fell over, it was just like five teams

M-8-SOCCER/RUGBY/SWIM-INIT - It was unfair cos we had like two of the fastest people in the school Zoë and Michael Flatman

I – I must admit, it sounds like its you lot who keep track of who comes where and you talk about it and stuff

Several: Yeah

I – So, is that what you all do, you all keep track of who comes where?

(Chatter)

I – Can we take it in turns please?

M-7-Soccer/Rugby-Init – Like you can play games where like you run around so that's like practicing

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Is this a microphone?

I – Yeah that ones really good and that ones a back-up

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – (too close) Hiya Matey!

F-8-CROSSCOUNTRY/SOCCER-INIT – Can you say hello and stuff?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Hello! We love you!

Others: Urgh! (Laughter)

I – Alright so I wanna talk now about, parents we haven't finished talking about that. I how do your parents

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – …. Fun

M-8-SOCCER/RUGBY/SWIM-INIT – You're not supposed to be having fun

I – (Laughs) Right. How do your parents get you to try harder, what things do they do to make you want to try hard? …Ok… take it turns…. First of all, Beth

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – My mummy says like, you can, 'Can I have a sweet if I come on the top ten?' and she says yes if you try and like do your best and then I'll try to get it.

I – Ok um, who's hand was up, go I'll ask him go on

M-8-SOCCER/RUGBY/SWIM-INIT – Um, my dad he gives me sweets when I score a goal and I feel better

I – Ok so that makes you wanna try hard and do your best right?

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah

I – Emma go on

F-8-CROSSCOUNTRY/SOCCER-INIT – Um, my parents bribe me and say if you do this you'll get to go out to someplace where I'd really like to go.

I – Mmm-hmm

M-8-SOCCER/SWIM-INIT – … beats us in practice every single day so we get more motivation

I – If we stay with Emma for a second, what do they give you treats for, for trying or for winning or, what's it for

F-8-CROSSCOUNTRY/SOCCER-INIT – For trying, for being a good sport, for anything really,

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY - Can I go to the toilet?

M-8-SOCCER/SWIM-INIT – What even losing?

F-8-CROSSCOUNTRY/SOCCER-INIT – Yeah as long as you try. And do the sport.

I – Ok did you have a point, how do your parents make you try hard?

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah well what happens is, my parents well they say, maybe that'll put you in this place if you've never been there before because you're getting better you've got, if you get better you'll be able to go there. Um, if you get better you'll be able to play in a different league, So um, be string, just go out there and do your best. You're much better than any of these

I – Ok so sort of talk you up and say you can do well and stuff.

M-8-SOCCER/SWIM-INIT – Well, well like when I play football, when I, they heard that I scored two goals in the Friday match before my league match, all of them came um, and watched me and I scored a goal for them and they were really proud.

I – Good. So, what about, the less fun side, how can your parents sometimes put pressure on you and make you worry

M-8-SOCCER/RUGBY/SWIM-INIT – Oh man that's not good I don't like that.

F-8-CROSSCOUNTRY/SOCCER-INIT – I don't like that bit.

I – Right, it's not nice but I need to know about it so I can make sure it doesn't happen anymore.

M-8-SOCCER/SWIM-INIT – Ok well what they can do is they can say 'right, lose this, you're bottom of the league and you're not gonna get anything you're not gonna be good.'

M-7-SOCCER/RUGBY-INIT – I'm not really, my mum and dad don't really put pressure on me.

I – They don't. Ok good.

M-8-SOCCER/RUGBY/SWIM-INIT – My mum and dad say you need to work as a team it's something you haven't done yet.

I – Lets listen to Emma quickly go on

F-8-CROSSCOUNTRY/SOCCER-INIT – They go like this, they go like this, like (chatter)

I – Come on settle down settle down, Emma, you alright?

F-8-CROSSCOUNTRY/SOCCER-INIT – They go like this they go, if you don't do this you won't go to your favourite place and like, and like you want get to play with your I-pod and if you don't do this…

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – (interrupting) are we still talking about the question?

I – We've changed it a bit so what we're talking about right now is what

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Can I go and change my chair?

I – Is that one broken? Will you settle down if you do it?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Yeah.

I – Promise?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Yeah

I – Go on then

M-8-SOCCER/RUGBY/SWIM-INIT – I tell you what I know why it's broken!

I – She's playing with it, that's what it is. Oh you're getting a big chair are you, right ok.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Yeah cos I'm a big person.

I – Ok. So putting pressure on and stuff.

?? – Do you work for the college?

I – I also work for the FA, and this team

M-8-SOCCER/SWIM-INIT – That's so cool! Loughborough! Yeah!

F-8-CROSSCOUNTRY/SOCCER-INIT – Oh that's where my dad came from.

(Chatter)

I – Oh I've probably met him then at some point, Hugh Furlong?

?? – Do you play for Leicester

I – No Loughborough, and I don't play I work there.

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – You told us we could talk about other stuff

I – That is, right, That is our little break to talk stupid things and now I wanna talk about this again

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Oww. Can we have a little break. Can we talk about this any other time?

M-7-SOCCER/RUGBY-INIT – Have I ever told you my one?

I – No go on George.

M-7-SOCCER/RUGBY-INIT – Well, they make me lose my precious money, I get five pounds a week and they make me lose it

I – How do they make you lose it?

M-7-SOCCER/RUGBY-INIT – They say if you don't win this match you get no pocket money for a week?

I – Really?

M-7-SOCCER/RUGBY-INIT – Well they say if you lose you lose two pounds but I always get two pounds for gardening. So really I've got seven pounds

M-8-SOCCER/SWIM-INIT – What if you don't get into the team because we're only allowed two substitutes for the league.

(Chatter)

I – But you've been making some really good comments though

F-8-CROSSCOUNTRY/SOCCER-INIT – Have I?! Oh wicked!

I – Yeah! I don't know why you're bored you've been really good.

F-8-CROSSCOUNTRY/SOCCER-INIT – (Giggles)

I – I need to know now, how parents can get you focused on, what you've been saying already about, about who's the best, who's the worst who's gonna get picked that sort of thing. What do they say or what do they do that makes you focus on that? Go on Beth

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – What's the question?

(Laughter)

I – What can parents to that focuses you on who's the best, who's the worst, am I going to get picked that kind of stuff, yes…

M-8-SOCCER/SWIM-INIT – They might teach, like when we talked about the leaderboard that they do, and they try to impress you like they won't tell you the other leaderboard they just say that leaderboard and that you're second from the top, like um you're in a really good place at the minute, so try harder and then you'll get second or top.

M-8-SOCCER/RUGBY/SWIM-INIT – Can I go to the toilet?

I – Yeah go on, Alex what's your point mate?

M-8-SOCCER/SWIM-INIT – Um, er,

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – How long till we finish

I – Ten or fifteen minutes, to get some more good answers you're all doing really well, when you're not messing about you're doing really well

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Thank-you very much (mocking?)

I – I need this information so it's really, really useful for me

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Why? I think you're just saying that

I – Stay in that chair and stop being cheeky. Right. The question is what can your parents do that focuses you on who's the best and who's the worst? And who's gonna get picked?

M-8-SOCCER/RUGBY/SWIM-INIT – Well yeah my dad knew I was gonna get picked because I scored two goals in the last match and there was no way they were gonna drop me out of the team.

I – I'm gonna ask Emma

F-8-CROSSCOUNTRY/SOCCER-INIT – Yay! (pause)

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – I've got a better one

I – Oh Beth! Go on…

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Um, like my say um, (giggles/laughter) They might say um like, they might say if you don't like, they might have a little word with the coach and say like she's really been trying at home and she really wants to play in the team, so give her a chance

I – Alex what was your point?

M-8-SOCCER/SWIM-INIT – sometimes my mum and dad make excuses if I don't get into the team

I – Ok like what would they say?

M-8-SOCCER/SWIM-INIT – They might say to the coach like never put Alex on in the last 15 minutes, because yeah my first match they put me on for the last 15 minutes and my magic trick didn't work.

I – Ok, Sam

M-8-SOCCER/RUGBY/SWIM-INIT – Well um my mum and dad, well they say um, you can put same on in defence for nearly the whole game but in the last five or ten minutes put him in attack and then he'll score a goal. And that's what I did to save the game.

I – Ok.

M-7-SOCCER/RUGBY-INIT – You didn't we all did!

I – Ok we'll move on now to the last topic, out team-mates. If you're a runner it can be you other runners… the question is what can your other, I'm gonna say team-mates, what can your team-mates do that makes you want to try hard?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Right now its our turn to talk.

I – Ok… I'm going to start with George

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – What was the question again?

M-7-SOCCER/RUGBY-INIT – Right my team-mates always say that I can win if I try really hard and I can get in some top team if I practice at home for 1 hour every day.

I – Ok. I'm going to go around this way I think. You had your hand up go on

F-8-CROSSCOUNTRY/SOCCER-INIT – Well my team-mates, including Beth Mullen um they encourage me and that makes me encourage them and it makes them feel better and me feel better.

I – Ok good, Sam?

M-8-SOCCER/RUGBY/SWIM-INIT – um well they say that you're the best in this team you know, you can do all the skills you can chip it over everyone you can do anything and you're really, really the best, go out there and do it and you'll score about 50 goals

I – So really talk you up?

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – 50 goals?! You're exaggerating!

I – Yeah Beth. Did you have a point?

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Yeah

I – Then raise your hand, I've been saying that all along, go on

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Um (laughter) I didn't have an answer

I – How can your team-mates make you want to try hard?

M-8-SOCCER/RUGBY/SWIM-INIT – Um well when I scored two goals um, I, they always knew that one certificate, or another man-of-the-match certificate will be mine

I – Ok, what was your point Beth go on

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Well we always say warm and try your best like, just run up and down the lines (go on, ok) it really annoys me when they say that because I don't want to do it anymore

I – On the opposite side, how can your team-mates make you worry about messing it up? Yes Emma?

F-8-CROSSCOUNTRY/SOCCER-INIT – Oh! Putting pressure on me again like, Oh Emma you can really do it, you can really, really do it and then you lose

I – What so you feel like you can't do it?

F-8-CROSSCOUNTRY/SOCCER-INIT – Yeah

I – Ok. Yep.

M-7-SOCCER/RUGBY-INIT – Being mean like saying you can't do it you're not strong enough. I'm gonna tell the coach that you're being really mean. And telling them you said you didn't wanna like go on the team instead of somebody else. That just made me…

M-8-SOCCER/SWIM-INIT – That wouldn't be your team-mates then. (Yeah) They wouldn't be you're mates would they?

I – They're on your team but it can happen can it?

M-8-soccer/swim-init – So they're your team not your mates. Team-selfish-mates

I – Sam what was yours?

M-8-SOCCER/RUGBY/SWIM-INIT- um, well, oh it's gone!

I – If it comes back just put your hand up again, just one last time, what can your team-mates do or your colleagues that make you worried about messing up. Yeah go on… that was a right smack, are you alright or did you really hurt yourself? I'll speak to Beth while you recover!

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Um, in tennis, I like tennis

M-8-SOCCER/SWIM-INIT – I like tennis too I play for the school A-team

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Um like when I was like, when I play tennis and, no gymnastics, When I play gymnastics I sometimes think I can't do it, like jump over the box. And all your team-mates are really kind and saying you can do it Beth you can do it, if you try!

I – Ok.

M-8-SOCCER/SWIM-INIT – Why?

I – Come on. (chatter) Has it gone? Right I'm gonna ask the last question now

M-7-SOCCER/RUGBY-INIT – I have something, I've got it. When there's a really big scary team, like Mosley (Settle down please) What happens is, I say I don't wanna go and hurt myself and they say no you've gotta go on and I get really worried cos I've hurt myself and I might hurt myself again even more. Like Mosley they've got two players that are even bigger than Beth. And she's like massive

I – Ok we've talked about it now for a little while, and I'll probably go round the group on this one, but when it comes to making everyone try hard, what do you think is the most important stuff?

M-7-SOCCER/RUGBY-INIT – I do not know!

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Can you tell the question again?

I – So I've been talking all the way through about what makes you want to try hard.

M-8-SOCCER/SWIM-INIT – What do you mean by that?

I –Effort. And like when you can't do something, trying and not giving up

F-8-CROSSCOUNTRY/SOCCER-INIT – Determination

I – Yeah determination

M-8-SOCCER/SWIM-INIT – What did you say extermination? (Laughter)

I – So of all the people here we've talked about, what's the most important stuff they can do that makes you want to try hard? Yup

F-8-CROSSCOUNTRY/SWIM/GYMN-COUNTY – Just have fun. What that was really good?!

I – That's what I mean thank-you!

M-7-SOCCER/RUGBY-INIT – They can say do your bestest.

M-8-SOCCER/RUGBY/SWIM-INIT – Yeah like show off.

(Chatter and giggling)

I – Sam?

(Laughter continues)

M-8-SOCCER/RUGBY/SWIM-INIT – What did you say?

I – What's the most important stuff? Right that's it that's enough. Ok so…

Appendix Hii – Specialisation example

Toot Hill School - Year 10b

- Pauses, interruptions or changes in direction of sentence are represented by: (…)
- Comments on the type of speech and/or background sounds transcribed as: (all talking together), (laughter), (pause).
- I = INTERVIEWER
- P = RESPONDENT

Interviewer: Um, Ok so starting with yourself, your full name, your age in years and months, and your sports.

F-15-SWIMMING-DEVT: _____, 15, swimming, um, like county level

INTERVIEWER: Ok fifteen dead on yeah?

F-15-SWIMMING-DEVT: [Laughs] Yeah

INTERVIEWER: Good stuff

M-15.1-HOCKEY/SWIM-DEVT: Ok Um, _____, 15 years and one month, I play county Hockey and I used to swim

INTERVIEWER: Ok

M-15.2-RUGBY/SOCCER/ROWING-DEVT: _____, 15 years and 2 months, and I play rugby at school and county and football for club [also does rowing to national level]

INTERVIEWER: Ok um, I'm gonna start by talking about, let me get this right, we'll start with parents I think, most important or one of the most important sets of people. Um when it comes to trying to get the best out of you, trying to make you try hard and things like that, what do parents do?

M-15.1-HOCKEY/SWIM-DEVT: Um, I find my parents like help to motivate me, they're like behind me all the way, which is quite nice to know.

INTERVIEWER: So like what do you mean by that what do they actually do or say or…

F-15-SWIMMING-DEVT: They support you and take you there cos if they didn't want to then they wouldn't like, and they'd make you find your own way and stuff

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Um my dad like helps me train as well, takes me to the gym and takes me through exercises that I can do to improve.

INTERVIEWER: Ok did you have anything else on that?

M-15.1-HOCKEY/SWIM-DEVT: Um, sometimes my parents give me tips, just like, randomly, and that helps

INTERVIEWER: Is that for your particular sport?

M-15.1-HOCKEY/SWIM-DEVT: Yeah

INTERVIEWER: Ok, um, so I've got helping by taking you there in the first place and providing transport and kit, hints and tips, taking you to the gym, things like that, all tend to be useful, generally. [Pause] When it comes to creating this feeling of… well let's change that question when it comes to this difference between 'I don't wanna mess up' as opposed to 'I'm gonna do this, I'm

gonna go out there and achieve something' what role do parents play in that difference, how do they influence that, that kind of mindset.

M-15.2-RUGBY/SOCCER/ROWING-DEVT: They want you to win and be the best as well.

INTERVIEWER: Ok

M-15.2-RUGBY/SOCCER/ROWING-DEVT: My dad says if you mess up it's only one time isn't it really?

INTERVIEWER: Ok, so he takes the pressure off I guess?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah, yeah

M-15.1-HOCKEY/SWIM-DEVT: I don't think my parents mind if I lose or win as long as I try my best really, so…

INTERVIEWER: So they encourage you to try your best (Yeah, yeah) and put the effort in but if you do play badly it's not the end of the world. (Yeah) Ok, um, obviously we've got a particularly good bunch of people here when it comes to parents but if you look at other parents, what things do you see them doing that might make their kinds for example worried about the failure aspect.

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Um they don't really encourage them, they shout at them when they make a mistake and (F-15-SWIMMING-DEVT: Yeah) don't actually encourage them when they do good stuff as well. (INTERVIEWER: Ok.) Expect it rather than encourage then to do it.

INTERVIEWER: Yeah, ok. And if you mess up, that's when you get criticised?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah, yeah.

INTERVIEWER: Ok alright, anything else?

M-15.1-HOCKEY/SWIM-DEVT: Can't think of any.

INTERVIEWER: I'm sure stuff will come out as it goes on cos there are loads of questions [laughter] Um what things might parents do that focus people on the pecking order, who's gonna get picked, who's the best, who's playing the best… do your parents talk about that? And what might they be saying or doing that makes you think that way?

F-15-SWIMMING-DEVT: What like talking to the coaches and stuff? To make you more, cos if they talk to the coaches they could like, they pick you cos they know your parents, stuff like that.

INTERVIEWER: Right ok, is that something that happens?

F-15-SWIMMING-DEVT: No not really.

[Laughter]

M-15.1-HOCKEY/SWIM-DEVT: My parents normally leave it down to me to try and get into teams.

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah

INTERVIEWER: Yeah ok. Um, I'm gonna have to ask again then, what things might other people's parents be doing…

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Their parents asking the manager for them to play//

F-15-SWIMMING-DEVT: And saying why aren't my kids in the team//

M-15.2-RUGBY/SOCCER/ROWING-DEVT: And pressuring the manager.

INTERVIEWER: Right, ok. And are those things that you've literally seen happen or observed?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Well my football manager, um, a parent went up to him and asked him why his son wasn't playing in the team and he got started the next match. But that was because of his parent and not on his own merit.

INTERVIEWER: Right ok, so it can even work I guess by the sound of it!

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah.

INTERVIEWER: Um, if we flip it around and talk about the personal aspects, how do your parents get you to focus on yourself and your own performance levels, how am I doing? [Pause] It hasn't gotta be that they sit you down and tell you about it, it can be the way that they act, or certain things they do.

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Just the way they encourage us really

INTERVIEWER: Mmm-hmm

M-15.1-HOCKEY/SWIM-DEVT: Like ask if I've practiced or anything…

F-15-SWIMMING-DEVT: Keep you focused when you go out as well//

M-15.2-RUGBY/SOCCER/ROWING-DEVT: And ask how your game's coming on and how you can improve it and stuff like that, they try to help you along the way.

INTERVIEWER: Does it help, this is something I've stumbled upon this week, does it help or not when your parents are very knowledgeable about the sport, like a coach or something <<interviewer adaptability>>

M-15.1-HOCKEY/SWIM-DEVT: Um yeah I think it does help. Like cos they can give you extra knowledge that you don't know of.

M-15.2-RUGBY/SOCCER/ROWING-DEVT: My dad's got a UEFA B Certificate for football, and he gives me loads of like extra help, to improve my game so yeah

INTERVIEWER: Ok, so, presumably though you don't want to be coached all the time

F-15-SWIMMING-DEVT: No

INTERVIEWER: Ok so I wanna know cos this is just something I'm playing with at the moment in my head, what's the difference, what separates out a parent who knows a lot from a coach?

F-15-SWIMMING-DEVT: What I do find though is cos, when I train I don't like my mum and dad coaching me like when I'm there with loads of other people, cos my friends dad he teaches her and he picks on her a lot and she doesn't like it at all. (Ok) But like, he supports her and stuff at home but she doesn't like it when they're teaching her with a load of other people and stuff. She thinks like he's pushing her and stuff.

INTERVIEWER: Ok, yeah. Any more on that cos it's something I'm sort of confused about right now

M-15.1-HOCKEY/SWIM-DEVT: [Mumbles] [Chuckles]

M-15.2-RUGBY/SOCCER/ROWING-DEVT: My friends dad like used to be the manager, and er, he used to be captain and he used to take everything [corners, free kicks?] and it's favouritism yeah.

INTERVIEWER: Ok, What got me thinking about it is, I don't know if you know the story or not but Andy Murray the tennis player, his mum is a really good coach, and I was convinced that that must be to do with why he's so good, but then somebody who knows him really well who played for Scotland with him to me 'no she doesn't coach him she just picks good coaches for him, and she's just basically his mum' and I was confused then, and I'm trying to work out you know is it better to have somebody who's knowledgeable but doesn't push you, or doesn't do anything and they're just there for you, I'm just trying to pick my way though it. You know? Have you got any preferences yourselves, cos you're the ones who it's all about…

F-15-SWIMMING-DEVT: It's good if they know stuff and like support you, but I wouldn't like them as my coach

M-15.2-RUGBY/SOCCER/ROWING-DEVT: My dad helps with the training but he doesn't like run the team, he has some influence on team selection but not really.

F-15-SWIMMING-DEVT: Yeah

INTERVIEWER: Ok

M-15.1-HOCKEY/SWIM-DEVT: I'd probably listen to my coach a lot more than I would my parents.

[Laughter]

INTERVIEWER: Ok, so if your parents were being a bit 'coachy' what would be the effect of that, just so I'm double-clear? Maybe even use this diagram, what sort of mindset might it produce

M-15.2-RUGBY/SOCCER/ROWING-DEVT: If it were my parents it probably wouldn't really affect it cos they'll always choose the best people they won't just choose me. Or…

INTERVIEWER: Mmm, ok good stuff. That's a good start actually, you know we've sort of managed to cover that quite nicely. If we look at these bubbles that I've drawn, the purple and the green ones, um, I like to use examples sometimes, can you think of times when you might have felt like any of these kind of feelings, and it was because of your parents. And don't forget I'll never tell anyone outside this room that it was you who said this [Laughter]

[Pause]

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Probably the top left one, I want to play well, I want to improve.

INTERVIEWER: Sure and what causes that?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: um they just want me to improve because they know I'm, there's always gonna be people better than yourself, so, they just want me to improve.

INTERVIEWER: Ok

M-15.1-HOCKEY/SWIM-DEVT: I probably don't wanna lose, just to make my parents proud of me really, and be the best.

INTERVIEWER: Ok so you've mentioned almost both of these here, just generally I wanna do well and please my parents (Yeah) Um, we've sort of skipped over that [MAv] what could a parent do that might make you concerned about messing up, never mind the result, but just not doing it very well?

F-15-SWIMMING-DEVT: They could say that if you don't do it very well, then you've gotta quit your sport and then that's it. If they're really bad

INTERVIEWER: Ok that could happen I guess. (Yeah) Er, Ok, I'm sure other stuff will come up as we go along, but I think the best place to go now, since we've touched on it already, is coaches. Now different sports so we'll probably get different kinds of answers but, generally speaking what does a coach do to try and get you to invest effort and persist and try hard?

M-15.1-HOCKEY/SWIM-DEVT: My hockey coach gives me a lot of praise, which helps me quite a lot, it's quite helpful

INTERVIEWER: Sure, specific praise or…

M-15.1-HOCKEY/SWIM-DEVT: Well every times I make a save or something he just says nice save, things like that, it just helps you wanna get better.

INTERVIEWER: Sure, ok good one. Is that something you all agree with, praise is generally good?

Several: Yeah, yeah

INTERVIEWER: Alright, [pause] um, if we move on then, to this positive mindset, cos we've already started off down that route, when it comes to like, you know what I'm driven to succeed all I care about is doing really well, I don't care if there's a mess up along the way, I'm gonna do great here. That kind of really positive outlook, how can a coach start to make you feel that way?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Set you goals so you can get there, cos I went to the national rowing championships the other week and I had a goal and I beat it by over 100 metres so, it just made me want to do it, so…

INTERVIEWER: Ok, that's a good one, yeah?

M-15.1-HOCKEY/SWIM-DEVT: Having goals helps a lot, it does

INTERVIEWER: Good stuff

M-15.1-HOCKEY/SWIM-DEVT: cos it's something to aim at.

INTERVIEWER: um that sounded like a sort of very personal goal is that right?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah

I - Um do they ever set you goals about performance? Your goal today is to win… does that happen?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Um, well for me it's not really like that it's more personal it is just like try your best. They obviously want us to win but it doesn't matter. If you don't, they're not gonna jump on your back if you lose as long as you played well.

INTERVIEWER: Ok, um, in contrast and again it sounds like you've got some good coaches so this might not, we might have to be hypothetical a bit. This mindset of 'I just can't mess this up, I can't get it wrong, I can't afford to lose' how do coaches produce that mindset, what thing do they do or say that might start you off down that route?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: I've noticed in my league, when, I've noticed a few weeks ago we were playing a team and they went one goal up and they, they kept, they beat us by quite a lot but their manager kept saying it's nil-nil, so they kept trying to score, score and score so they, you know. Rather than them saying it's one nil we just need to defend now and hold the lead.

INTERVIEWER: Right so rather than protecting your lead you're actually attacking. Good one. What others, I mean there's definitely loads of things that coaches can do. So, if there's anything that comes up, now's the time to tell me so I can get it into the theory…

[Laughter]

INTERVIEWER: Cos we've all felt that way

F-15-SWIMMING-DEVT: Yeah

INTERVIEWER: I can't get this wrong, I can't do this wrong//

F-15-SWIMMING-DEVT: My old coach he told my friend that if she doesn't get this then time she won't be picked for the next team. So that like, it motivated her and she wanted to win it so she stayed on. <<Interaction of climate/person>>

INTERVIEWER: Ok, so it was kind of a threat? (Yeah) But it actually worked for her?

F-15-SWIMMING-DEVT: Yeah

INTERVIEWER: Ok. [Pause] Obviously this is probably where a coach can play a massive role cos they pick teams and they pick squads and things but, what, behaviours and comment and things can you hear from coaches that can immediately make you think about the pecking order, who's getting picked and, who's the best, who's the worst…

F1 –They like people with determination.

M-15.2-RUGBY/SOCCER/ROWING-DEVT: They like it if you give 100%. It doesn't matter if you have the most skilful player, or the strongest, you could have a rubbish player who gave 100% and he'd choose him over the skilful player who's only giving 20 or whatever.

INTERVIEWER: Ok. [Pause] Um, so I mean for example, have you ever had a time where you've been, if we go with this example [PAv], when you've been concerned about not getting picked or um, not being dropped from a team, or things like that, what can make you feel that way?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Um when I went on holiday cos my team won twice when I was on Holiday after a bad start to the season, so I just did training on holiday so I kept my place in the team.

INTERVIEWER: Ok, so the team did well without you basically. (Yeah) Was it alright? Did you get back in afterwards?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah, yeah I got back in.

INTERVIEWER: Cool, I thought you were gonna talk then

M-15.1-HOCKEY/SWIM-DEVT: No just taking a breath

INTERVIEWER: Cos I think at different points as you develop you're bound to feel that way, when you enter a new squad or the season starts again, you are put in that position, but it's whether a coach emphasises that, you know he's got like his favourite set of players that he always chooses, or um, you know sometimes coaches threaten to drop you, sort of saying if you mess this up then I'm not gonna pick you. I've certainly heard that said before, so I'm just trying to work out from you, cos I've heard different stories, what kind of what you've seen.

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Our coach just tells us to fight for our place. Um, anyone can get it, from training and the previous match

INTERVIEWER: And is that true is that what you see every week?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah it changes all the time. Sometimes cos we've got like three or four strikers and it changes every week. Who gives the effort and who doesn't.

INTERVIEWER: Ok.

M<1 – Sometimes I feel threatened cos like there's another keepers that plays for our club and I'm always in a fight with him to get picked for the team. It's quite difficult.

INTERVIEWER: Sure, ok. Um, now if we look at the more personal side, um, your own development and your own performance standards. How do your coaches focus you on that? [Pause]

M-15.2-RUGBY/SOCCER/ROWING-DEVT: My coach like pulls us to one side and tells us what we do well and how we need to put it more into our game and what we don't need to put into our game what we need to stop doing.

INTERVIEWER: Mmm-hmm ok. So that's not in front of people that's often just off to one side is it?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Um, well, he doesn't do it in front of people, just one-to-one.

INTERVIEWER: Cool good one thank-you.

[Pause]

INTERVIEWER: For example, can you see when you've got a coach, can you whether they're there to develop you as a player or to pick a team that wins regardless? Can you see that difference?

M-15.1-HOCKEY/SWIM-DEVT: In one of my coaches he used to play the position that I play and he just helps to develop me, he doesn't really pick a certain person just cos of who they are.

INTERVIEWER: Ok, and what is the difference that you see, is it the way they act, is it things they say, what is it that comes across?

[Pause]

M-15.1-HOCKEY/SWIM-DEVT: Sometimes it's like the advice they give us, like sometimes the coach just pulls me over to the side just to give me a bit of advice and I go away and try it and um, I find that helpful. It's just a nice attitude.

INTERVIEWER: Yeah. I mean I guess when you were talking I was sort of think of different kinds of advice, I mean your coaches can probably give advice that's um, tips about how to win and how to protect a lead and how to wrangle free kicks as opposed to hints and tips about how to become a good player, and be technically, talented. That would be a difference I suppose, I don't know I'm just shooting at ducks now

F-15-SWIMMING-DEVT: [Laughs]

M-15.2-RUGBY/SOCCER/ROWING-DEVT: It does help.

INTERVIEWER: Ok um, I'm gonna go probably around these four corners I think, in terms of this personal emphasis but in a good way, I wanna improve I wanna go out and do my best, how can a coach produce that?

[Pause]

INTERVIEWER: I mean we've had setting you goals, being very positive, I don't mind repeating things…

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Sets you goals yeah, sets you what you're aiming to do as an individual rather than the whole team.

INTERVIEWER: Mmm-hmm [Pause] And in contrast what can a coach do that makes you worry about performing badly, you know, bad times for example, getting techniques wrong, how can a coach make that a concern as opposed to a positive?

M-15.1-HOCKEY/SWIM-DEVT: Sometimes like you get told off for doing things wrong. And that's why you don't wanna do things wrong again, cos you get told off.

INTERVIEWER: Ok

M-15.1-HOCKEY/SWIM-DEVT: Sometimes that happens

INTERVIEWER: Ok so they sort of pick things out and I guess if they really focus on your bad points then it can become that sort of motivation...

M-15.1-HOCKEY/SWIM-DEVT: Yeah.

INTERVIEWER: Alright, um, just gonna carry on round basically, in this aspect, really worried about being the worst player or not getting picked, we sort of covered this one but sticking with it, um, how would a coach induce that mindset. We've all been there, we've all had that feeling of Oh god I really don't wanna get dropped from this team or, to look bad or whatever it might be, how do coaches produce that?

[Pause]

M-15.1-HOCKEY/SWIM-DEVT: I think sometimes like coaches threaten us to do our best, to try and extend you a bit. I've had that a couple of times. But, you've just gotta try really hard.

M-15.2-RUGBY/SOCCER/ROWING-DEVT: They'll say that if you're not doing your best they'll bring you off and replace you.

INTERVIEWER: Ok, so it can be in a good way, they're trying to get the best out of you? (Yeah, yeah) But they use that as…

M-15.2-RUGBY/SOCCER/ROWING-DEVT: But sometimes it doesn't work. It puts extra weight on your shoulders.

INTERVIEWER: Certainly. Too much to worry about almost.

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah.

INTERVIEWER: And then completing the circle, this is a very positive mindset when you are doing well anyway, I wanna be the best, I wanna win this, you know, I wanna get picked, I know I can, how does a coach get you thinking that way?

F-15-SWIMMING-DEVT: My coaches always say you should think like that because like, if you want to win, it's better than if you think you're not gonna win, then you're not. Because you've got a negative frame of mind. But, I think, thinking like that it motivates you more and makes you think you can do it if they're telling you that

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Being positive from the outset

INTERVIEWER: So if they say you've gotta do it, how do they get you to, how do they help you to be positive? Cos it's a good point, I think he's right! [Laughter] [Pause] Is it the encouragement you mentioned earlier?

F-15-SWIMMING-DEVT: Yeah

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah just encouragement.

F-15-SWIMMING-DEVT: Say like, oh you can do it you've just gotta put in the effort and go out there and do your best and they've got like er [pause] I don't know! [Laughter]

M-15.2-RUGBY/SOCCER/ROWING-DEVT: In the summer, all the other teams have time off, and we all wanted to keep being the best and staying as we are so we trained all over summer and at the start of the season we um, were a lot fitter than all the other teams cos of the extra training

INTERVIEWER: Mmm, good! So what we've talked about so far is parents and coaches right? (Yep) The thirds bunch of people are colleagues and team-mates. What can they do to you and you do them, if you were trying to motivate your team-mates for example, to get the best out of each other

M-15.1-HOCKEY/SWIM-DEVT: Probably praise again

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Encouragement. When, I've noticed we've got some people in our team that just don't take any bad word against them, they always have someone else to blame, (Sure) so then it just turns into an argument, if you blame them you just encourage it

INTERVIEWER: Ok, and so if there is like a, um, I'm gonna use the words culture of blame, if there is that, where would that fit on here [the diagram]?

[Pause]

M-15.1-HOCKEY/SWIM-DEVT: Here [MAv]

INTERVIEWER: Yeah?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah I don't wanna play badly

INTERVIEWER: So everyone gets worried about mistakes and not messing up?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah.

INTERVIEWER: Ok, I guess it's different between individual and team sports but have you got any experiences of team-mates getting the best out of each other and feel good and swim well?

F-15-SWIMMING-DEVT: Um, yeah quite a few, quite a few of my swimming mates though they try and put each other down so that they can win, so they tell them that like, I dunno they do it in this, they do it in a funny way some of them are better at it than others. (Right) They make you fee like you can't do it so that they have the upper chance that they're being positive and stuff.

INTERVIEWER: Ok, do you know the tricks they do, the sort of things they come out with?

F-15-SWIMMING-DEVT: Um, I dunno really it's just the things that they say like, like I dunno I can't thin at the moment

INTERVIEWER: Just trying to get inside your head a bit by the sound of it

F-15-SWIMMING-DEVT: Yeah

INTERVIEWER: Ok, um let's just keep going at this sort of pace er, when it comes to… let me think about this… plenty of time… this feeling of success, 'we're gonna go out' or 'I'm gonna go out and achieve something good today', how can your team-mates produce that in you? Cos we've almost talked bout both in the same breath, in the past couple of minutes but if there was a wish-list you could have, what would be on it? That would make you think 'yeah I can do this I'm gonna do great'?

M-15.1-HOCKEY/SWIM-DEVT: Just like try and improve the atmosphere between the team

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Like team spirit

M-15.1-HOCKEY/SWIM-DEVT: Yeah.

M-15.2-RUGBY/SOCCER/ROWING-DEVT: When you get them all playing together then that will improve your own individual performance as well.

INTERVIEWER: Ok. How does that work, if you're a good team, how does that draw it out?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: You're in a better mood with everyone, rather than if you're in a team and you didn't like anyone, your performance would drop.

INTERVIEWER: Ok. Yeah I can see how that works, um, similar or different with yourself?

F-15-SWIMMING-DEVT: Um, no we had this Olympic swimmer come and talk to us and he said that you've gotta like be different with each other like, don't be all silly with each other like 'Oh you'll beat me' you've gotta have a positive like Oh I'm gonna beat you but not in a harsh way, that it ends up in someone crying and stuff, but…

INTERVIEWER: Ok, so it's almost I guess different attitudes at poolside and away from it I guess as well.

F-15-SWIMMING-DEVT: Yeah

INTERVIEWER: Um, I know it can happen so what can team-mates do that gets you actually quite concerned that you might mess it up or lose or do badly?

M-15.1-HOCKEY/SWIM-DEVT: Like try and put you off your game or something just say, look if you don't win this then we won't like you anymore or something stupid like that

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Blame you for bad things that you do rather than just saying it doesn't matter just do better next time.

INTERVIEWER: Mmm-hmm yeah, and you mentioned earlier just sort of trying to talk you down and get you thinking about your faults and stuff… um, I mean I guess, they have a bog influence on this aspect of who's the best, who's the worst, who's gonna be in the team today… how do they, or how might they get everyone thinking this way?

[Pause]

INTERVIEWER: I know we've talked about it twice already but it is quite repetitive, you know parents, coaches then team-mates what might team-mates do that gets everyone vying for position vying for selection…

M-15.1-HOCKEY/SWIM-DEVT: I think they might try and improve just to put pressure on other people to get the place and stuff instead of them, so it's like everyone fighting for position really.

Interviewer:

Mmm-hmm

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Others players improving, wanting to get better wanting to be better than everyone else

Interviewer:

Something I've heard that I found quite funny was that basically players gossiping about it, gossiping about who's being picked, is that something you've seen?

F-15-SWIMMING-DEVT: Yeah

Interviewer:

Yeah? When does it come up? What's said

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Um probably before the match because picking the team that they would play and… [Pause]

INTERVIEWER: Ok, um, this one's probably more difficult depending on your sport, that persona emphasis of I'm gonna improve or maintain my own high standards, how can your team-mates start to induce that feeling, [inaudible] how can a team-mate start to get you thinking about you own standards and how well you're playing?

M-15.1-HOCKEY/SWIM-DEVT: Just saying to you like oh come on you can improve you can do this like you can do this better and really trying

INTERVIEWER: [Inspects Dictaphone] Sorry I get worried about them

[Laughter]

INTERVIEWER: Ok so talking you up really

M-15.1-HOCKEY/SWIM-DEVT: Yeah

INTERVIEWER: Any more on that have you seen different things or…

[Pause]

INTERVIEWER: Are the questions ok am I mostly making sense?

All: Yeah

INTERVIEWER: Cool. Um, can we go round one last time in that case and ask if any of can remember a time when something you've tam-mates did made you focus on really developing yourself and doing well, doing your best? Does that ever happen?

[Pause]

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah because like when you're in a big match or something like that they want you to play well so the whole team plays well as well. Everyone to play well, every individual person to play well.

INTERVIEWER: Is that running back to that team spirit thing you were talking about?

M-15.1-HOCKEY/SWIM-DEVT: Yeah

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah

INTERVIEWER: Ok, now in exact contrast to that is there ever a time where you've felt that 'I don't wanna mess this up or fall below my current standard'? Or whatever it might be, play badly, swim badly or get a bad time, and that was caused by a team mate as opposed to other people like coaches or whatever?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Kind of cos er, there's like kind of, at our football club there's kind of half from this school and half from a school at Radcliffe, and um, it's sometimes kind of us against them, us against Radcliffe, so, kind of, makes you want to not play badly and them to, well not play badly, but you want to play better than them.

INTERVIEWER: Ok, um so is it, I mean this is a good point does that relate to, playing well and having high standards, having more Bingham people selected for the team, or both actually?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: It's not getting your people selected you just want to do better than the other kind of side, but that's all. It's stopped now really and we all play as a team now.

INTERVIEWER: Yeah sure, did you have something on that one?

F-15-SWIMMING-DEVT: No [Laughs/giggles]

INTERVIEWER: Ok, um, I'm just gonna carry on going round I think. 'I don't wanna lose, don't wanna not get picked'. Now I've definitely felt that way but is there any situation that you've felt like that because of team-mates?

[Pause]

M-15.1-HOCKEY/SWIM-DEVT: Not really no

I- Ok. Have you ever felt rivalry in your own squad or team?

M-15.1-HOCKEY/SWIM-DEVT: I have sometimes but it hasn't like really concerned me cos I, you know, I know that the person's a good 'keeper and I don't mind if he gets in the team I just prefer it if I do.

INTERVIEWER: Yeah. Anything else with yourself I mean you've got a different experience I guess

F-15-SWIMMING-DEVT: No, it's the same really, yeah

INTERVIEWER: Generally quite nice then

F-15-SWIMMING-DEVT: Yeah

INTERVIEWER: Ok. So finally this, really good mindset I guess in sport, you know 'let's go out there and win, lets' do our best and be the best team out there, or the best swimmer if it's individual. Like *I'm* gonna win this race, or *we're* gonna win this match, how do team-mates, how do squad-mates, peers produce that feeling?

[Changing tapes over]

INTERVIEWER: Here we go

M-15.2-RUGBY/SOCCER/ROWING-DEVT: I think it's like, back down to team spirit again. I think everyone's more able to play the game that way, I think it helps a lot

INTERVIEWER: Yeah, absolutely. Um, I'm happy with that bit, that's the bulk of it over. We've basically got three questions and whatever spins off from that. Um, when it comes to coaches, first of all, if you could have a wish-list, to get the best out of me these are the things you should be doing, what would be on that wish-list?

M-15.1-HOCKEY/SWIM-DEVT: Um probably motivation would be one [!?!?!]

INTERVIEWER: Ok but how do you mean?

M-15.1-HOCKEY/SWIM-DEVT: Um, like, a good coach would like help motivate you for games and things, which I think is quite important.

INTERVIEWER: Right so getting you psyched up?

F-15-SWIMMING-DEVT: Yeah

M-15.1-HOCKEY/SWIM-DEVT: Yeah

INTERVIEWER: Alright um, any more?

M-15.1-HOCKEY/SWIM-DEVT: Can't think of anything else no

M-15.2-RUGBY/SOCCER/ROWING-DEVT: He's gotta have knowledge, he's gotta be good at the sport, to be able to coach it.

[Pause]

INTERVIEWER: In terms of emphasising what you're capable of, or putting out where you might go wrong or what you're bad at, is there a balance? What would you be wishing for most of the time?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: I would want him to be honest and tell me where I'm going wrong most of the time and just kind of helping me, improve it, getting better.

INTERVIEWER: So that sounds sort of like positive, even though it's pointing out a negative

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah

INTERVIEWER: It's how you can improve it

F-15-SWIMMING-DEVT: Yeah say what you've got to better but praise you as well so you feel good that you've done something, so you have like a bit of motivation, so like you still want to do it. But you've got things you can make better

INTERVIEWER: Mmm-hmm. And then the opposite direction in terms of a coach who's very big on selection, so like probably name his best layers in a heart beat, as opposed to a coach who is trying to develop you and will always take the time to give you advice and that feedback we talked about, is there a balance there, is there a preference?

[Pause]

INTERVIEWER: They've gotta do both jobs, they've gotta try and put out a team that wins, but they've gotta develop you because at 15 you're never gonna be the finished article. But, you know what's nicer to get as a main input? I don't know cos I'm not 15!

[Polite laughter]

M-15.2-RUGBY/SOCCER/ROWING-DEVT: If he picks just the players that are performing basically, he doesn't pick the players that aren't doing their, aren't performing well at the moment.

M-15.1-HOCKEY/SWIM-DEVT: I think improvement's like a big help because to get, to be picked for the team you've gotta improve so more on improvement I think

INTERVIEWER: Ok so a coach who values improvement and also picks a team based on current performance not on talent for example

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah, yeah

INTERVIEWER: I can see that. Same wish-list but if you could take it home to your parents?

M-15.1-HOCKEY/SWIM-DEVT: I think they could be like a bit more understanding, to like your needs and things

INTERVIEWER: Ok can you expand on that one?

M-15.1-HOCKEY/SWIM-DEVT: Like some parents might push you too far. And like really work hard to train you but sometimes you just need a little bit of rest or something like that.

INTERVIEWER: Ok, just so I know, when parents do push, what does it come across as? I mean, what do they focus on and what they push you about?

M-15.1-HOCKEY/SWIM-DEVT: I think that when they push you they're kind of re-living their childhood, what they didn't do.

F-15-SWIMMING-DEVT: Yeah

M-15.1-HOCKEY/SWIM-DEVT: They want you to do what they haven't had the chance to

INTERVIEWER: Mmm-hmm. So if it was, still a positive input but perhaps not that, um, not so egotistical, would that be on the wish-list almost… Ok, so this is, again I'm not a parent so I don't know, but how can they be helping you differently to that, so it's not for the parent's good but for your good?

[Pause]

F-15-SWIMMING-DEVT: Keep like supporting us in our training and stuff but if we want to like, go out or something like Kieran said have a rest, then like, if you've got a party or something don't say oh you're not going to the party cos you've got training tonight. Kind of like ,give them, even out so, we can still see our friends and stuff rather than just training all the time.

INTERVIEWER: Uh-huh. And in terms of like, again I'm gonna follow along this line, in terms of focusing on very much yourself your own development, versus getting picked for squads and making certain levels, in your cases it would be county, regional and so on, what would you rather your parents were caring about?

M-15.2-RUGBY/SOCCER/ROWING-DEVT: As long as I do my best and that's all they ask for, really.

INTERVIEWER: So just effort really

M-15.1-HOCKEY/SWIM-DEVT: They wouldn't mind if I didn't get picked for the team but they'd prefer it if I did

INTERVIEWER: Yeah, ok. I mean it's difficult to nail down but it sounds like with parents it's about just generally being very positive and supportive. And not, er, not too involved not kind of telling you when to go to bed and telling you exactly where to be on the pitch and stuff, not that level but generally very helpful.

M-15.1-HOCKEY/SWIM-DEVT: Yeah

INTERVIEWER: I don't know I'm trying to work it out still.

F-15-SWIMMING-DEVT: Being there for when we need them the most and stuff

INTERVIEWER: Ok, this might be quite a personal question but we've talked about it for an hour, and I wanna know now we've got a good idea where we're going with this, what er, what do you think is the most important things in making you tick? Making you wanna try hard in your sport?

M-15.1-HOCKEY/SWIM-DEVT: I think my parents are really, just supporting me through it for about a year now so I just wanna do well for them.

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah it's your parents cos they support you, they're the one's who will always be there for you.

INTERVIEWER: Alright. Good stuff. [Clearly fed up now, trying to keep tone up] I've talked about parents, coaches and other players, they're obviously definitely there in sport. Have I missed anything else, any other person or set up or situation for example that might, influence how you wanna play, how hard you wanna try?

[Pause]

INTERVIEWER: Possibly NGBs and stuff//

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Scouts sometimes come and watch the matches which makes you wanna play better. It just puts a little bit more pressure on you really to perform.

INTERVIEWER: Yeah ok, now, we've got this diagram still here, the scout turns up, if you're on trial so to speak, where does that make you go, you know? This one? [MAp]

M-15.2-RUGBY/SOCCER/ROWING-DEVT: Yeah

INTERVIEWER: Same for all of you?

M-15.1-HOCKEY/SWIM-DEVT: Just er not be embarrassed if you did something wrong.

INTERVIEWER: Ok, um, to be honest I think I'm out of questions now I think we've covered most of the stuff, is there anything you wanna add about what makes you want to try hard in your sports, or are you sort of done?

[Pause]

INTERVIEWER: Brilliant, well I mean I hope that was ok for you….

Appendix Hiii – Investment-mastery example:

Loughborough Swimming Team

- Pauses, interruptions or changes in direction of sentence are represented by: (…)
- Comments on the type of speech and/or background sounds transcribed as: (all talking together), (laughter), (pause).
- I =
- INTERVIEWER
- P = RESPONDENT

INTERVIEWER:
Ok I think that's recording, yep. Ok, smack bang in the middle, um so starting off on my left, er your name and then age.

M20.1-SWIMMING-DEVT:
Um _____, 20 and one month.

INTERVIEWER:
Ok, obviously you're a swimmer any other sports?

M20.1-SWIMMING-DEVT:
No just swimming.

INTERVIEWER:
Ok

M19.3-SWIMMING-DEVT:
Erm, _____, nineteen years and three months

INTERVIEWER:
Ok thank you

F19.4-SWIMMING-DEVT:
_____, nineteen years and four months

F20.4-SWIMMING-DEVT:
_____, 20 years and four months

M20.11-SWIMMING-DEVT:
_____ 20 years and 11 months

INTERVIEWER:
Alright, any other sports in the room or is it just swimming now?

All: No

M20.11-SWIMMING-DEVT:
A wee bit of badminton now and again (Laughter)

INTERVIEWER:
That's cool, um I was talking to Julia earlier and I've never had to ask this question before but um, in terms of medals and levels, again just starting with yourself and working round, what level are you at and what have you achieved?

M20.1-SWIMMING-DEVT:
Er well national level, I got two golds and one bronze at the last national champs

INTERVIEWER:
Ok great

M19.3-SWIMMING-DEVT:
Er national level as well, er European juniors last year that's the highest I've been.

INTERVIEWER:
That's superb thank you

F19.4-SWIMMING-DEVT:
Um, start commonwealths got silver medal in the relay, um, and yeah I'm just competing at the international level.

INTERVIEWER:
Brilliant

F20.4-SWIMMING-DEVT:
Um, world championships, commonwealth games silver medal in the relay and then we've got Europeans and world championships coming up

INTERVIEWER:
Cool

M20.11-SWIMMING-DEVT:
Er commonwealths and Europeans, two silver medals at the commonwealths

INTERVIEWER:
Superb, never had to ask that before you see. (Laughter) Um, so one of the things I need to specify is that I'm talking about the environment around you at the moment. Um, it would be easy to look back and say when I was young this is how it was but I need to capture to motivational climate around you now (Ok), and it could be that something that was done a long time ago affects you now, but it's what is affecting your motivation at this point in your career. So, um, starting off with the coach cos that's the easiest one to get into I think, generally speaking how does a coach influence your motivation and make you wanna try harder?

F20.4-SWIMMING-DEVT:
Um oh god

F19.4-SWIMMING-DEVT:
Um make you wanna try harder? (Yeah) I don't like it when they put too much pressure on I think that just puts me off completely. (OK) if they let you get on with it then that just makes me motivate myself.

F20.4-SWIMMING-DEVT:
Yeah

INTERVIEWER:
So how do you mean put pressure on?

F19.4-SWIMMING-DEVT:
Um if they sort of say right ok right you've got to get this time in this competition and things like that and you have to do this otherwise you're not gonna get this result, I don't like stuff like that.

F20.4-SWIMMING-DEVT:
I agree with you but I also think that they've gotta believe in you as well and you've got to actually see that they believe in you to an extent like and it's nice when they can say look I know you can do well here. That's better than saying I want you to get this time and if you don't you're gonna fail.

F19.4-SWIMMING-DEVT:
Oh yeah definitely.

INTERVIEWER:
Ok so there's one end of it highlighting the negatives of failing but if they do want you to do well and believe in you and express that 'I really think you can do this' that's very different. It could be pressurising but is sounds like it's, much more…

F19.4-SWIMMING-DEVT:
Yeah, yeah that is…

F20.4-SWIMMING-DEVT:
It is but I think there's a really fine line between it though. Saying like I think you can do this time like you're really up for it but cos you could also take it as a kind of oh well what if I don't do that time, now I'm not sure what….

F19.4-SWIMMING-DEVT:
I think the coach needs to figure out, like know their swimmer, like how it's gonna effect them.

INTERVIEWER:
So like the relationship's key to making that difference? To an extent? Is that fair?

F19.4-SWIMMING-DEVT:
Mmm

INTERVIEWER:
Ok good start.

M20.11-SWIMMING-DEVT:
I also find like your coach motivates you like when you get to know him more, so when you get to know the guy you actually want to swim well for him, not just fro yourself. And if you like, if you come training every day and he talks to you about stuff, like not about swimming then you're just like feel like you get to know him and that means that you get motivated and want to do well for him as well as for yourself. That's what motivates me sometimes

INTERVIEWER:
Ok

M20.1-SWIMMING-DEVT:
Yeah and sometimes if you don't swim well then you feel like you've let him down as well. Cos he's put a lot of work in.

F20.4-SWIMMING-DEVT:
I think there is a thing where you've got to understand that they are working really hard as well as you are but sometimes you get the feeling that they don't think you're working as hard. You know like there's like you need to be working as hard as each other and you both need to understand that which is motivating if you're both working hard for each other.

INTERVIEWER:
A matching up of expectations almost? Or how you perceive the other person is working? Is that right?

F20.4-SWIMMING-DEVT:
Yeah I suppose, um, you wouldn't want then to think that you're just slacking it off. I mean so…

F19.4-SWIMMING-DEVT:
That you actually want to achieve something as well.

INTERVIEWER:
Yep um, so is it familiarity with the coach or is it, what I though I heard was more that they're very committed to getting the best out of you and as a result you want to achieve that.

M20.11-SWIMMING-DEVT:
Well yeah their job is to get the best out of you and you're almost like you feel like you have to, well not have to but you feel like you want to the more you know the guy. Like, if a guy was, if he's very personal with you in training it's almost more motivating for yourself to race well, if he's very impersonal then it's just like, I don't like it

F19.4-SWIMMING-DEVT:
If they're more like a friend than a coach aren't they really

M20.11-SWIMMING-DEVT:
Yeah

F19.4-SWIMMING-DEVT:
You would generally try and do better for someone who you're closer to than someone you're not, which is you know pretty self explanatory.

F20.4-SWIMMING-DEVT:
I think you've put it the right way there

INTERVIEWER:
That makes a lot of sense. Um, how does that come across, like how do you tell when a coach is, wants to be close and wants to invest in you. How do you tell that it's a good relationship?

F20.4-SWIMMING-DEVT:
I think there's like lots of ways really like cos sometimes like a coach getting really, really angry at you or really stressed out at you can actually show you that they care (Mmm-hmm) but they can go over the top again, but also actually sitting you down and saying, you know, I think you can do really well in this and your training's been going really well so, again so, I reckon there's two extremes and if it goes over the top then I dunno it makes it worse

F19.4-SWIMMING-DEVT:
But then if they keep praising you and everything then (Yeah) they're obviously not watching

F20.4-SWIMMING-DEVT:
Like saying you're doing really well whether you are or not!

F19.4-SWIMMING-DEVT:
Otherwise they'd be, like when you're not doing so well they need to say look you're not doing so well you need to do this, this and this

F20.4-SWIMMING-DEVT:
That shows they care as well

F19.4-SWIMMING-DEVT:
And that shows they're actually watching what you're doing and they do actually want you to improve on it.

INTERVIEWER:
Sounds like the difference between than and kind of the shouting and balling you were talking about is sort of honest critical appraisal as opposed to you know, this is over the top now he's really digging me out

F20.4-SWIMMING-DEVT:
Yeah I think they need to like understand when you're tired as well, for example, like, there's a lot of times when like shouting is just not gonna help they need to actually, like Amy said before, they need to understand their swimmer, like everyone's different, like say if you were tired it might help if someone yelled at you, but other people, it might not and it doesn't work sometimes and then they need to be able to say look ok I know you're tired but keep trying. So, I don't really know like all coaches are different as well like, cos there's four completely different ones here aren't there, well five. So, there we go

INTERVIEWER:
Ok well that should give us lots to talk about then! (Laughter) Um, so, staying on similar lines I wanna focus on the positive motivation, the 'I wanna achieve big things and do well today, not worried about what if I mess up'. The motivation that's purely positive and it's great if you can get that

M20.11-SWIMMING-DEVT:
When you have no fear of failure kind of thing?

F20.4-SWIMMING-DEVT:
No worried yeah?

INTERVIEWER:
That's precisely it, how can a coach start to produce that feeling in you, what things can they do or say? Where can it come from?

F20.4-SWIMMING-DEVT:
How can they make you not worry about it and not fear failing?

INTERVIEWER:
Well and feel very positive yeah

F19.4-SWIMMING-DEVT:
I think that's difficult for them to do because a lot of the time it's yourself that's putting the pressure on you. If you're at a competition, if you're like at a major competition you've always got the fear of failing whether your coach puts it on you or not, like they can try and get rid of it as much as they like, as much as they can but it's not always gonna work cos you've got that pressure on yourself.

INTERVIEWER:
Ok

M20.11-SWIMMING-DEVT:
They can reassure you that if you don't do well it's not a big deal. But you kind of know it is in yourself, so it's very much a personal thing

INTERVIEWER:
You can't fool you guys.

F20.4-SWIMMING-DEVT:
Yeah, I think the best thing that was said to me about it, um, is that, I mean exactly what she said, it is, it is us and how much we try but the best thing that was ever said to me especially about worrying about failing was what if the only reason you would fail is the fact that you were worried about it? You should stop worrying about it! Like if that's the only reason that's gonna stop you doing well, then cut it out. And I think that's the best thing that was said to me about it. And I think sometimes you have to cut out the bad points like if your coach is being stressy on that day just ignore him.

INTERVIEWER:
Was that a coach who said that or a friend?

F20.4-SWIMMING-DEVT:
It was a friend who said that actually yeah.

INTERVIEWER:
Ok yeah but it's the same sort of point

F20.4-SWIMMING-DEVT:
Yeah that you need to cut out those thoughts and they need to help you cut out those thoughts as well.

INTERVIEWER:
Yeah I mean I guess what I'm getting at is within that very pressurising context of competitions or maybe training as well, but it's always there I guess and it might be like you're hinting at, very much from within, but I suppose how can a coach start to turn that around…

M20.11-SWIMMING-DEVT:
I think one of the things they can do is, if you do fail, their reaction to it. Because if a coach reacts badly to you doing bad, then that'll increase your fear, that'll increase your fear of failure if you know what I mean. Like if you know your coach is going to absolutely go off on one if you do a bad swim, then you're gonna worry about doing a bad swim.

F20.4-SWIMMING-DEVT:
Even more

INTERVIEWER:
Good point

M20.11-SWIMMING-DEVT:
But if you know your coach is going to be alright about it if you do a bad swim then….

F20.4-SWIMMING-DEVT:
It'll make you relax more. So maybe yeah previous experiences your coach, has like had with you [can influence you?]… so I think they've gotta be careful all the time then really. So you don't worry about it later on.

INTERVIEWER:
That's definitely something I've heard before is that if you worry about what's going to be going off afterwards it just adds to the fear

F20.4-SWIMMING-DEVT:
Mmm, yeah definitely.

INTERVIEWER:
Ok um, so if we just turn it round completely and say what things do coaches do that make you worry about messing up, and failing, you know it could be anything from not hitting a weight in training to losing a competition, any kind of failure, how can they make you worry about it?

F19.4-SWIMMING-DEVT:
My coach is quite good for that actually, like he's really laid back and he's just like you're only doing it for yourself you know like, don't… he wouldn't I know he wouldn't go off on one even if I swam badly he'd say look this could be the reason for it whatever, so in that respect I know I have, but I don't think I can comment because I don't think it would happen in my situation

F20.4-SWIMMING-DEVT:
So sorry what was the question again? How do they make you feel bad?

INTERVIEWER:
How do they make you worry? So when you're out there doing it, whatever task it is, how do they make you worry about getting it wrong or messing it up or under-achieving?

F20.4-SWIMMING-DEVT:
I think a lot of the time, well especially with my coach it's not so much their actions it's what they say, and I think they can be completely different as well like actions, like he's fine in the way he acts but what he says is just… like I have never forgotten a time when he said Julia if you don't swim well now, absolutely no-one is gonna for this team, like the relay team, if you don't do a good time now no-one is gonna wanna be in this team. And it was like all of it was on me, everything, and that's how it felt anyway and that's exactly what he said, but at the time he was like, you know hugging me and trying to make me feel like I could do it but at the same time he was telling me that it would be all my fault if no-one won. So, I dunno it's definitely, well with me it's more what they say to you and the way they say it as well. Like maybe he was trying to motivate me but it was a bad way of doing it
[Laughter]

F20.4-SWIMMING-DEVT:
But in the gym and stuff I don't really know, like I actually never really fear failing in the gym and like you've said that about weights and stuff, and I don't know how anyone else would feel

INTERVIEWER:
Yeah just trying to pick out examples sorry

F20.4-SWIMMING-DEVT:
No, no, no that's cool but I don't actually fear failing something that, like, I'm not saying I'm really bad at it but I don't fear failing that

INTERVIEWER:
Ok probably what I meant now that I'm trying to catch up a bit is…. Would be for example technique. Specific aspects of technique. So whether it be a certain turn or a certain changeover, things like that, can they make you worry about getting that wrong? I don't wanna put words in your mouth, it might never happen in which case just say so, but are there situations that occur in training as well where you can be… there's no concern over losing because there's no comparison to the next person but it's still fearful

M20.1-SWIMMING-DEVT:
I don't think that much pressure gets put on you in training in terms of technique I'd say it's more achieving times, achieving distances all the critical stats and things

F19.4-SWIMMING-DEVT:
Mines the other way, I think it depends on your coach and what group you're in but mine is a lot based on technique and I do get told look you're doing this wrong and you're doing that wrong come on like try and get it right and sometimes I find that I do get really annoyed with that, like stop it just shut up! He just constantly keeps like reminding me to do stuff right, and like it gets to the point where it's like I'm trying but I'm tired! I can't.

M20.11-SWIMMING-DEVT:
Yeah that happens with me sometimes actually.

F19.4-SWIMMING-DEVT:
Yeah sometimes it does grind on you having to get your technique right and if you don't sometimes you like, well it puts a downer on your session. You think I probably had a bad session there. You know it's not like a major worry, I don't think

INTERVIEWER:
Ok

F19.4-SWIMMING-DEVT:
I think um my coach tends to, we've got, he's got a habit of maybe just walking off pool-side, if we're just not hitting times or if we're doing something wrong for like the fifth time in a row, he tends to just walk off to be honest and I don't think that rally effects the like, you know, him doing that doesn't make me worry about what I'm doing, because like it doesn't really have a very good effect

INTERVIEWER:
What effect does it have?

F20.4-SWIMMING-DEVT:
Well it just we go oh right ok, oh we're on our own so we'll just carry on [Laughter] and you know oh he's in a stress again. It's more like it would be, I don't know… it would be better if he stayed and he talked about it or… but he does walk off sometimes and that doesn't really. It's like Oh ok see you.

INTERVIEWER:
Yeah I guess the session can run anyway

F20.4-SWIMMING-DEVT:
Yeah we've got it we can carry on by ourselves
[Laughter]

INTERVIEWER:
Ok so in some cases it's times, and then on the times cos it can be like in between, is it a personal thing or is it look somebody else is swimming these times and you've got to match that, or is it about your own improvement.

F20.4-SWIMMING-DEVT:
I think mine's definitely about own improvement, own stuff. Um, actually that's a really good thing about our coach that everyone… there are good things! [Laughter]… that everyone on our sessions um, this is quite motivating actually, that everyone on the session will have their names and their times that they're gonna hit for each thing, so everyone's different and somebody who's a bit more maybe distance will do more but maybe a bit slower than the others, and everyone's got their own time that they're gonna hit and he'll focus on them and he'll always get them and focus on that, and that actually really motivates me. I think if you're just shoved with someone and you're just supposed to be doing what they're doing, I don't know like with distance guys, like whether you just go against each other all the time and do the same thing but like, that would be a little bit demotivating if it wasn't just for me, if he wasn't just focusing on you, exactly what you were supposed to be doing as well.

INTERVIEWER:
Ok. Sounds like it maybe takes a bit of time almost to set those goals and make it personal.

F20.4-SWIMMING-DEVT:
Yeah it does I think it does take time

INTERVIEWER:
And that's better than, by the sound of it being grouped?

F20.4-SWIMMING-DEVT:
Yeah much better. Mmm

INTERVIEWER:
Ok.

M20.11-SWIMMING-DEVT:
Although grouping can be good cos like if you see someone swimming there, like if Mike was beating me I wouldn't like it and I would swim faster, kind a thing. Like if you're with someone who's of a similar standard and you're not keeping up, then you'll try and keep up more.

INTERVIEWER:
Ok. Sounds like you have to be careful then cos if you throw somebody in with a person who's much better or worse it won't have any effect or it might demotivated them, but if it's close

M20.11-SWIMMING-DEVT:
Yeah then it'll motivate you to go that bit further

F19.4-SWIMMING-DEVT:
Well I don't know though cos I did a session the other day and it was a speed set and usually I'm faster than some of the other girls, and there's another sprinter just cope in and Steve's like oh she's gotta try and keep up with you kind of thing. And on this speed stuff it's like I wasn't doing so well and he's like com on you need to go faster and you know that'll… cos if you're going slow it makes her feel as if she's going fast and she's not. And I'm like, I don't care, it's not about what she's doing I don't care about how what I'm doing is affecting her. Like that shouldn't matter like if I can't go any faster I can't go any faster, you know what I mean. And that annoyed me a bit when it was comparing to someone else, like…

M20.11-SWIMMING-DEVT:
It's always a win:win situation for the person going slightly slower isn't it.
[Laughter]

F19.4-SWIMMING-DEVT:
Yeah and he's like telling me I have to go faster to pull her along. And I'm like if we're training, I mean I haven't got anyone pulling me along what am I meant to do?

F20.4-SWIMMING-DEVT:
Definitely, definitely, and I agree and again it goes back to the fact that it's totally individual again. And it's what you feel like, you were there you'd rather have done it on your own that day and some, like maybe that's the same every day but like I got proper yelled at the other day when um, I was doing some 50s pace with someone else and we were going like really well like the same, the same, the same, and then she like stopped doing them and started doing something else and I carried on doing them on my own and I got slower, and I was [shouted at] big style like "don't you ever hang on her!' and blah, blah, blah 'why are you looking at her you should do your own thing! Rah, rah, rah!" So I don't know whether it actually helps in the end, maybe you are just, like when you're on your own you might go slower but it's definitely individualised again like what you feel, would you rather chase people or would you rather do it yourself in your head.

INTERVIEWER:
Mmm, maybe knowing your athlete enough to look into that is a good secret, coming back to the familiarity thing. Some like being chased some like doing the chasing.

F20.4-SWIMMING-DEVT:
Yeah uh-huh.

INTERVIEWER:
Ok we've talked about the individual motivation and your own goals, your own technique aspects, in contrast how can a coach focus you on the competition and sort of the pecking order? When does that come in and how do you see it come in? [Pause] Is it certain times of the season?

M20.11-SWIMMING-DEVT:
How can the coach…?

F20.4-SWIMMING-DEVT:
Get you ready for competition.

INTERVIEWER:
Um, it's focusing you on the comparisons, you know like who am I competing against, who do I want to beat?

M19.3-SWIMMING-DEVT:
I don't really like than. Like I've never really experienced it, um, I think it's better for a coach just to focus on your own race and no-one else. Obviously there are times when you've gotta beat someone to make a team or something, but you'll know that before you go to a competition and if he just keeps reminding you then that's a lot of pressure.

INTERVIEWER:
Ok, so it doesn't happen to you?

M19.3-SWIMMING-DEVT:
Um not really no.

INTERVIEWER:
Ok, has it happened to anybody, recently? Or at this level is it very much a personal thing?

F19.4-SWIMMING-DEVT:
Um like my coach gave me a list the other day of the results from last year's Europeans in the event that I'm gonna be racing in [Laughter] he was like there were the times they were going. I was like, ' oh great, thanks'… but um, yeah that was kind of like yeah so I know what I've gotta do but I wasn't like rating myself against them because I, I didn't see the point because like if I don't do it then I'm just gonna be like well I didn't get them. You know I don't wanna have to set that goal just to achieve it…

F20.4-SWIMMING-DEVT:
You'd rather set personal goals.

F19.4-SWIMMING-DEVT:
Yeah I'd rather say 'I'd rather hit this time' than say 'I wanna beat that person, or that person'. It's different I think at smaller competitions because there's people I think you're expected to beat, and things like that but when it gets to things where I think it's more times involved, then you just need your personal best

INTERVIEWER:
I mean I've just realised that this is a very personal sport in that extent, I mean you can't really do anything to anybody around you or change the nature of the race

F19.4-SWIMMING-DEVT:
All you can change is your own race. You can't do anything about anyone else

F20.4-SWIMMING-DEVT:
You can't actually affect anyone

F19.4-SWIMMING-DEVT:
Unless you kick them in the shins before the race!
[Laughter]

M20.11-SWIMMING-DEVT:
I think you can beat someone before a race through mental tactics. That's for sure.

INTERVIEWER:
Mmm.

F20.4-SWIMMING-DEVT:
You're doing it now! Um, I, same as Amy our coach often gives out the current world rankings in your event, like he'll come with the print out of the current world rankings, he doesn't ever say anything about them he just wants you to look at them. So, I dunno…

INTERVIEWER:
How does that affect you? Do you then look at those times and think I wanna beat that person or do you think…

F20.4-SWIMMING-DEVT:
I think actually it worries me; yeah I look at them and go 'Jeeeeeezus', like so…

F19.4-SWIMMING-DEVT:
I think if you're at a certain level, like if you're number one or two in the world or something then that'd be quite nice cos you're up there. You're up there and you're like ok well, you know I'm up with those times anyway I need to, you know, and I think it would motivate you in that case but I think I'm not in that situation and, like Julia says it just worries me looking at those times and thinking 'Oh God, if I actually want to do well then I've got to up my game a bit'.

F20.4-SWIMMING-DEVT:
Mmm.

INTERVIEWER:
Mmm, ok.

F20.4-SWIMMING-DEVT:
Actually thinking about it our coach does come in quite a lot, he doesn't do it so much to me but he does do it to other people in the squad, 'Oh um, what's-her-name went this times in this event yesterday, in Australia'…

F19.4-SWIMMING-DEVT:
Oh God!

F20.4-SWIMMING-DEVT:
Yeah he'll come and he's like 'Ah', not in like a nasty way but just like saying 'by the way… yeah, and it was in the heats, at 5am in the morning, she went the world record!' and you don't know whether it's exaggerating or not but I'm not sure that would help me. I'd just be like 'Oh for goodness sake!' I'd rather not know.

M20.11-SWIMMING-DEVT:
When the times are too far ahead of you then it does kind of demotivated you. But if you hear like someone in Britain goes like a second faster than you, then you're like 'Bastard! [Laughter] I wanna do that!' kind of thing

F19.4-SWIMMING-DEVT:
I think it depends on the event though cos like a second for me would be like a lot, I'd be like 'Oh Dammit!' but yeah I have that done to me as well and he's even done it with people that aren't even doing my event or anything, and I was like well why do I even want to know that?! [Laughter] But no he's done it with people that aren't even in my event and people that are my friends, um and I'm like well, if they are miles ahead of me then that just puts me off.

F20.4-SWIMMING-DEVT:
I'm not sure that works, trying to motivate you through what your friends have done, doesn't work. Definitely not

F19.4-SWIMMING-DEVT:
No cos you're comparing to other people and I don't think you can do that, to be honest.

INTERVIEWER:
Yeah I picked up when you were talking kind of two different reactions. One is, sort of like you were talking 'oh bloody hell now I've got to go even harder' whereas you sort of sounded like 'Bastard now I have to beat him' and I wondered what's the difference between…

M20.11-SWIMMING-DEVT:
I get motivated by what other people do

INTERVIEWER:
Right so different schools of thought again, maybe knowing your athlete and that kind of thing. I dunno I'm trying to find a kind of…

F20.4-SWIMMING-DEVT:
We're all different I think, we're all really different.

INTERVIEWER:
Yeah and that's what keeps coming up, about familiarity and knowing what will work. Ok. Um, ok I'm gonna forge on for now. This is gonna be the toughest bit I think cos talking about parents when you're starting out is dead easy cos they're almost a coach as well, talking about parents when you're at this level and you've moved out and things it might be a completely different influence, and it could be over a long distance as well. So how do your parents influence your motivation?

F19.4-SWIMMING-DEVT:
I've got to admit since I have moved away it's got less and less. Like I still wanna swim well for them because I know they've helped me so much as I've been going through, but it's kind of when I was at home they understood more about my swimming and now when I've got here things have changed and I just have to explain a lot more to them. And I dunno, I just get a bit annoyed with that, and I shouldn't but I do and it's, I dunno I'm kind of like well, I feel they're less involved now and that's, it's really bad to say but they probably are less involved in some ways cos they're not here but I can't help that I can't do anything about that so you do have to like find help from other people, like your coach and your friends that you're living with now. So I think my parents used to be a huge motivation, and they still are to some extent but not quite so much.

F20.4-SWIMMING-DEVT:
I think um, my parents are quite different to everyone else's, like my dad knows absolutely nothing about swimming, really at all, which I really, really like. I do like that because he'll say, like I'll be on the phone to my family or something from here, this is what happens now and it's like 'are you swimming fast?', 'Yeah dad'. 'Oh that's good', and then that's it really. Like 'have you gone a little bit faster?' 'Yeah', 'Oh ok so that's alright' like, and I think that he doesn't really like, which is nice that he's not completely involved, I mean my mum's a lot more involved and um but she's always said to me… which probably makes me like, motivates me in a good way, she's always said to me 'you know, if you ever wanna stop, just stop. You know, if you ever don't wanna do it just don't do it' like um which is nice because she'll always support me and she'll always say, you know maybe you should give it a try or something but, inside she's not pushing at all and I think that motivates me in a way that I just really want to please them, to like, you know, my dad knows now that if I make a team then that's good, um, and he knows what a PB means [personal best], but like my mum knows a bit more and that's nice because she knows what I've achieved. So, and like Amy was saying you kind of get a release when you come here, when you come away from them and what's better is that you get more intrinsic motivation and that's why we're still doing it now, you know we're still doing it even though our mum isn't taking us to training. Look at that, are you impressed with that?

M20.11-SWIMMING-DEVT:
That's a long word!
[Laughter]

F20.4-SWIMMING-DEVT:
So, um, I think that you probably improve just from doing that as well. Coming here, getting intrinsically motivated.

M20.11-SWIMMING-DEVT:
Alright, alright!

[Laughter]

F19.4-SWIMMING-DEVT:
You've gotta do it for yourself

F20.4-SWIMMING-DEVT:
Yeah you're doing it for yourself

INTERVIEWER:
Ok is that a similar feeling round the table?

M20.11-SWIMMING-DEVT:
Yeah my parents are like, again my Dad doesn't really know what's going on and er, yeah cos I've been away from home for a while so, like they just give me the option of whether you want to swim or whether you don't want to swim kind of thing, they'll never put and pressure on you to do well or indifferent or anything else, that also as, as just said, that does motivate you as well.

INTERVIEWER:
So like taking the pressure away I suppose.

M20.11-SWIMMING-DEVT:
Yeah, like almost no influence or pressure or anything. And it's just like, they obviously just want you to do well, for yourself, which is s bit motivating.

INTERVIEWER:
I recognise that feeling, you know, like with me doing a PhD my parents don't know anything about what I'm doing, but at my brother's wedding they said to me we don't know what it is you're doing but we are really proud of you [
F20.4-SWIMMING-DEVT:
Aww!] And it was just that

M20.11-SWIMMING-DEVT:
Yeah it's that kind of thing definitely, whatever you're doing just keep doing it!

F20.4-SWIMMING-DEVT:
I think, although, it does motivate you a bit they do, they do know how much work goes into it, and I think, my mum used to come and watch all my competitions and everything and if I hadn't done so well, every time, you know she was upset, and I was like are you alright mum, and she was like why should I be alright, I'm just disappointed for you because I know you're disappointed and she used to say it all the time you know, I'm not disappointed in you I'm disappointed for you, and that used to motivate me because I was like yeah I am disappointed, so, you know she was disappointed for me so I think you know, being a sort of calming influence I think.

F19.4-SWIMMING-DEVT:
They're like your link back to reality in a way aren't they?

F20.4-SWIMMING-DEVT:
Yeah definitely.

F19.4-SWIMMING-DEVT:
Like being here you're just around swimming and coaches and stuff all the time and I think your parents are just, they are, they're just your link back to reality. Even if they know, like my parents do know a fair bit about swimming and whatever and they understand it to an extent but they're still not fully involved

where, like I'm thinking they know what's going on here so I've gotta perform well, and things like that, you know they just like take you away from that sometimes.

M20.11-SWIMMING-DEVT:
It almost motivates you when they come to watch doesn't it, like when they do

F19.4-SWIMMING-DEVT:
Yeah mine always come to watch and I always think it's great

M20.11-SWIMMING-DEVT:
See mine only cone to watch like if it's a big competition or something, and it's just like, they're in the crowd, big event! Kind of thing!

F20.4-SWIMMING-DEVT:
Yeah

INTERVIEWER:
Ok. Um, so it sounds like there's a change and the time they're around you is different. Cos I hear stories about like the car journey home and eating dinner still talking about sport and I guess that's not the case anymore (No) and I imagine they're not there before the event to give you the pep talk it's very much over the phone and as you say turning up for the big events so that's very different.

F19.4-SWIMMING-DEVT:
I'd say my Dad definitely used to like, he was on the side a lot at like Galas and stuff, and he definitely used to try and motivate me and I think he was really good like I think he could be a coach to be honest! Like he was really good with that kind of stuff and like he definitely relaxed me, like my mum would get me a bit worked up but I think that was just cos she was like Aaah herself.

F20.4-SWIMMING-DEVT:
I think it's strange cos like what you just said there, about when I was at home it does change a lot because when I was at home, I didn't like, my mum sometimes had to com to the pool when they were doing um, tests sometimes cos at my old club we just had no-one and it was just me swimming up and down so she'd time me and I absolutely hated it! I hated it, I used to, I mean I never shout at my mum, I'm never nasty at all but I just couldn't stand it. She would say oh you split this and you're final time was this you know maybe you should go a bit faster and I was like Oww! (Angry, hit table I think too). I can't believe you're telling me this, you know. It's alright coming from a coach, it's fine! But Oh it used to really, really annoy me. And it was, it would only be like once every month, and I hated it, and then, it was fine. But now she's the person that I would ring to talk to if I wasn't doing that well. And she'd be like oh hmm-hmm, hmm-hmm [soothing noises] that's fine. But, I just didn't want her then, but now maybe I do, you know? [Nervous laugh]

INTERVIEWER:
Just out of…. I mean we talked about a transition from them motivating to it being quite intrinsic, in terms of people, what fills that gap? So you're parents are no longer there running you to and from events, so are there other people who fill that gap is it non-sporting friends or team-mates or is it very much just yourself?

F20.4-SWIMMING-DEVT:
Um, I think the people that have taken that place would actually be my non-sporting friends. Because they don't know anything about it and they don't talk about it and they think everything's amazing anyway so it's alright! That's it! Do you know what I mean? So, if I hadn't had a very good meet: "Well at least you went, oh it's fun isn't it yeah!" Er, ok that's it and then you watch telly and then you talk about something else so, that, probably.

F19.4-SWIMMING-DEVT:
I don't think there is anyone that can ever really actually ever fill your parents place for motivation. Like not properly. I mean, yeah like friends and people around you like Julia said, like friends can be good

F20.4-SWIMMING-DEVT:
If they don't know about it I find.

F19.4-SWIMMING-DEVT:
Um, yeah. I dunno, I seem to find friends who do know about it can motivate you a bit more than those that don't but I guess that just depends on the person. But then like obviously your coach motivates you but I just don't think there's anyone that can actually make you feel as good as your parents.

INTERVIEWER:
Sure, Lets move onto peers then cos you've gotta go at three, right?

F20.4-SWIMMING-DEVT:
Well yeah, we need to be there about quarter past.

INTERVIEWER:
Ok, so we'll move into that and then, how long have we got, you've got about 20 minutes is that right?

F20.4-SWIMMING-DEVT:
About, mmm.

INTERVIEWER:
Yeah? Ok, er, can your parents… this might be a redundant question, can your parents make you worry about failure? Is there anything they can say pr do at this point in our career that can make you worry about failing

F19.4-SWIMMING-DEVT:
Maybe it isn't anything that they can say or do but when, like for instance when we went to the commonwealths, and I knew my parents were going, the fact that they'd spent so much money to get out there (
F20.4-SWIMMING-DEVT:
Oh yeah) and so much time that they've had to have off work, and just the effort that they put in, I knew that I didn't want to kind of disappoint them by failing. Kind of thing, and yeah it was a really big influencing factor, like the fact that they were there, and I was just like, right they're here, they're all the way over the other side of the world, I can't mess up. Kind of thing

INTERVIEWER:
Ok.

F20.4-SWIMMING-DEVT:
And it's ironic isn't it that the only way they can make you feel more nervous and worry about it more is the fact that they just wanna support you and be there! [Laughter] Like so really you're not sure what's better like "it's great that you're there but can you not come cos it's just gonna make me feel worse!" Just like, I dunno what's going in!

INTERVIEWER:
It sounds like, again, the commitment shown is a key aspect. They're not gonna be talking about your performance or trying to coach you like when you're younger but just the nature of your relationship with your parents and the fact that they're so committed and in some cases you talked about quite a close relationship with you mum like you actually want them to be there. (Yeah) So maybe that's…

F19.4-SWIMMING-DEVT:
Your parents are just the people that are always gonna be there so I think that's what like…

F20.4-SWIMMING-DEVT:
And there is like an underlying, I dunno maybe it's just me but there is something inside you that you just wanna make them proud. You know? So even, and there's no-one else that could possibly have that effect on you, because these people always gonna be there, they always have been, they're your parents, you're not gonna have any relationship with anyone else that's gonna be the same, and there is something inside that just wants to make them proud, so you always kind of feel a little bit like, nervous or worried a bit for them as well.

M20.11-SWIMMING-DEVT:
It's like you're always representing your parents in whatever you do aren't you? (Mmm) Same way with your coach, so they're always gonna….

F20.4-SWIMMING-DEVT:
They're everywhere! [Laughter]

INTERVIEWER:
When you say representing, just so I know, how do you mean?

M20.11-SWIMMING-DEVT:
Like you're always like

F20.4-SWIMMING-DEVT:
Your second name

M20.11-SWIMMING-DEVT:
Yeah like your second name and like that kind of thing, like you're always

F20.4-SWIMMING-DEVT:
It'll get back to them

M20.11-SWIMMING-DEVT:
Yeah they're always gonna know like the rest of the family's gonna know how you do and stuff like that.

INTERVIEWER:
So like you're always affiliated to them, it's always

M20.11-SWIMMING-DEVT:
You're always gonna be related back to them.

F20.4-SWIMMING-DEVT:
Mmm

INTERVIEWER:
Ok, um, can they influence for example, you to think in personal terms or to compare yourself to other people? Does that happen as much?

M20.11-SWIMMING-DEVT:
What your parents?

INTERVIEWER:
Yeah

M20.11-SWIMMING-DEVT:
Nah. Mine don't really compare me to other people, they don't really know the other people!

F20.4-SWIMMING-DEVT:
No

INTERVIEWER:
Sure

F19.4-SWIMMING-DEVT:
My dad only knows them when they're wearing their hat and goggles! He doesn't recognise them when they're not! He's like who was that you were talking to? [Laughter] I was like it's so-and-so, you've seen him like a million times!

INTERVIEWER:
Ok

F20.4-SWIMMING-DEVT:
Yeah not really

INTERVIEWER:
Again, I started off asking this question, when I started out, about your whole career but we've just, I've just been told recently no you've gotta make sure it's at this point in the person's career and that changes it a lot cos it means that actually maybe if I talk to my parents enough and talk about sport enough with them then this stuff can come up but I dunno, that's what I'm guess I think it changes a bit for you guys, which is why I wanna move onto peers. I wanna include in that team-mates and non-sporting peers I think. How do they normally influence your motivation, how do they make you wanna try hard? Or possibly less hard, what influences do they have?

M20.11-SWIMMING-DEVT:
I think team-mates have a massive influence on your motivation. If you see your team-mates doing well then that motivates you, cos if you swim with them the whole time then there's no reason why you can't do well as well. Cos you've done exactly what they've done, so that, that motivates you to do well. But then peers outside swimming, I can't say they motivate me to swim well or anything like that.

F19.4-SWIMMING-DEVT:
The only people that motivate me to swim well are my housemates really. The ones that, yeah the ones that haven't got a clue anyway, so they live with you and they know pretty much everything about you, and so they know the ways they can motivate you. Whereas other people, they're still your friends and non-sporting but they don't know you quite so well, I just don't…. the things they do say I just don't really find that they have a lot of importance. I know they're trying to motivate me and help me but, you know you take it as like fair enough but, it, it doesn't have a huge influence on you I don't think.

INTERVIEWER:
Ok so you have to either know them quite well because you're housemates or be on the same team fro it to actually have any effect cos otherwise it's just like other people….

F20.4-SWIMMING-DEVT:
Yeah well I think you need to have like a lot of respect for that person as well, like, I'm not saying you don't respect your friends but like you really do respect them and their knowledge as well like… probably

maybe swimming peers just because they know exactly what is going on, and I think like Ewan said if they do well then it really helps, definitely. And then also the other way if they don't do well (Exactly yeah) you can really worry about it. So…

M20.11-SWIMMING-DEVT:
Like if 5 people from the same swimming group go to the same major competition, and the first guy that swims does rubbish, then you're like Oh shit the training's been bad.

F20.4-SWIMMING-DEVT:
And that might not even be it but it's just that, that's how you feel.

INTERVIEWER:
So it relies, that is a new one for me because it relies on you being from the same team and having trained together.

F20.4-SWIMMING-DEVT:
Well you would have dome exactly the same thing all the time so…

F19.4-SWIMMING-DEVT:
But as well, like we've said earlier on that individuals react differently to training.

F20.4-SWIMMING-DEVT:
Yep, oh yeah

M20.11-SWIMMING-DEVT:
You know it shouldn't affect you but it kind of, it always does

F20.4-SWIMMING-DEVT:
That's a mental thing isn't it really, and when like someone needs to rest more than others, so it is, yeah. They might have got their taper wrong but the immediate reaction is [wobbly voice]

M20.11-SWIMMING-DEVT:
It does place doubt in your mind.

INTERVIEWER:
I have heard that before in a martial art, it was some sort of free-range fighting and if somebody from your club gets a kicking and you've always trained together and he can beat me so…
[Laughter]

F20.4-SWIMMING-DEVT:
Yeah you beat me last week and now…
[Laughter]

M20.1-SWIMMING-DEVT:
Like even if you go into a competition like knowing inside that you'll do well, you've done everything right, then some guy in the heat before you from the same squad, and he swims rubbish, then it's gonna place a bit of doubt in your head, even if there was none before.

INTERVIEWER:
Ok

F20.4-SWIMMING-DEVT:
I don't know whether sometimes it's just best to cut off what other people are doing or whether to engage with it, like I'm not sure. I mean I always engage, I've never even tried cutting it off I mean every single

meet I've been to I've been fully engaged in someone else's swim before I've swum, or cheering on a team before I swim, and now you've, put doubt in my mind.

INTERVIEWER:
Let me rephrase it a bit cos that one is, it's definitely important but it's hard to control. You know? I want to be able to come back in a couple of years or months and say here's what you should do. Er, and I can't just say go and win! If you had the choice, what would you want team-mates around you to be doing and saying, acting like so that you stay motivated or get more motivated? How would that be, in a perfect world.

F20.4-SWIMMING-DEVT:
Absolutely different for everyone

INTERVIEWER:
Yeah but that's what I want to hear about

F20.4-SWIMMING-DEVT:
Oh right you wanna know everything.

INTERVIEWER:
Yeah, yeah

M20.1-SWIMMING-DEVT:
Well first of all don't be negative because…

INTERVIEWER:
Pessimistic, or critical or…

M20.1-SWIMMING-DEVT:
Um, like say in training, um, you're going against someone and they're not swimming that well, and they just keep going on about it being really negative then I guess that can have a snowball effect, like the whole, like the next person will say oh well I can't be bothered with this and start someone else off. I think if you're just positive all the time, welt yr to be…

F19.4-SWIMMING-DEVT:
I was gonna say if you can't be positive, if you have done really badly at a major meet or something, take yourself away, I think you have to take yourself away because you're allowed to be upset about it but don't make other people upset about it. I suppose

F20.4-SWIMMING-DEVT:
Mmm yeah, this is kind of like that thing we did at Europeans, you know?

F19.4-SWIMMING-DEVT:
Oh where we had to go…

F20.4-SWIMMING-DEVT:
Yeah where we had to write down on forms, write down what you'd want your team-mates to do or what you think, how everyone should act on the team, and a lot of stuff that came up on that was, if you need to bitch about something, make sure it's ok with the other person before you do it! Like, you know what I mean if I was having a mare, I'd be like Amy is it ok if I talk to you about this and you could say no, because it's not gonna help you and I think definitely in swimming situations, I think you're roomed with someone as well and I think the way that they act really influences the way that you act as well, because you're gonna sleep, you're gonna eat you're gonna do everything together with that person as well. And I think they need to understand you individual needs as well. So, what was the question?

INTERVIEWER:
Yeah, well I mean what I think I've picked up is that pessimism and criticality, negative mood or whatever can drag people down which I guess can be demotivating, and that's fine that's a good point worth knowing, so going with the perfect swim-mate, if you choose the perfect room mate or the perfect swim team, what would they be like, never mind how well they swim, but to make you swim brilliantly, what would they be like?

M20.11-SWIMMING-DEVT:
Reassurance I think, and giving praise when you've done well. Sort of well done good job. Or if it's not so good then, better luck next time.

F20.4-SWIMMING-DEVT:
Yeah I agree with that, give you praise when you've done well but also when you haven't done so well I actually think the worst thing is someone saying no, no, no you've done really good, cos you know

M20.11-SWIMMING-DEVT:
You wanna hear the truth

F20.4-SWIMMING-DEVT:
You actually do want someone to say, no that wasn't as good as you could have done but I know tomorrow you'll do better. There's no point going through the whole evening going, it's alright, it's alright. So, I'm not sure, I think the perfect room mate would be someone that knows exactly what you wanted to do I think.

M20.11-SWIMMING-DEVT:
I think someone you train with would be a good room mate cos they would know exactly what you want to do, and if you don't achieve it then they should tell you that you didn't achieve it.

INTERVIEWER:
Yeah. That point about honesty, and I guess, what's the effect of if someone tries to dress u pa negative performance as good and say it doesn't matter or whatever. Does it affect you? Do you lose respect for them? What's the actual effect?

F20.4-SWIMMING-DEVT:
Do you, yeah. No, I know. Although I'm the worst culprit for doing it! I can't help it everyone does it! When inside you know that it really wasn't that great but I always still do say, 'it wasn't that bad though was it though, well done!' Like, but I think that to say it in a positive way, I would want someone to say to me 'it was alright considering… like unless there was no other excuses. Without making excuses you don't want excuses but you want like, considering you were still in full training you weren't supposed to swim a PB right now. Like…

F19.4-SWIMMING-DEVT:
just with reasoning

F20.4-SWIMMING-DEVT:
But the worst thing is someone walking by and going well done that was great! And then carrying on walking and you're like no you've got no idea.

M20.1-SWIMMING-DEVT:
It's good when they offer ways that you did go wrong as well, like say you swim badly and you feel awful, but in the same race you went out too fast or something, if they say to you 'you went out too fast but I know you won't do that again, you won't go out too fast again'

M20.1-SWIMMING-DEVT:
The ways you could of swum better

M20.1-SWIMMING-DEVT:
Then you try and think well maybe it wasn't just the way I'm feeling maybe it was the way I swam it as well. Next race I can you know, do better. It gives you as bit of confidence and a bit of hope.

F20.4-SWIMMING-DEVT:
Is it ok if I ask a question to them two?

INTERVIEWER:
Yep!

F20.4-SWIMMING-DEVT:
Cos you always race against each other in like a 1500, which is really long, do you like talk to each other about it?

M19.3-SWIMMING-DEVT:
For me we came at the same time, same event, lived together since we've been doing it at the same time as well, and everything. And for him to make such a big step up last year and for me to have such an awful year is just, made me feel, get more motivated for this year to like catch up. It got me more motivated

M20.1-SWIMMING-DEVT:
About a year ago I was exactly the same as Dan, looking at the times you know at any moment he could make a step up like I did. It keeps you motivated

F20.4-SWIMMING-DEVT:
And he's chasing you. I always find sometimes it's better to be the one doing the chasing than be the one in front, cos it's like being in the team and knocking on the door to get in the team, it's harder to stay in there than to get on it. So, I dunno I just wanted to know how you guys approach it

M19.3-SWIMMING-DEVT:
Just be honest with each other, I think honesty is the best yeah, in like everything you know, swimming, playing a game at home or cooking, whatever. Everything.

INTERVIEWER:
So do you talk about the competition, and the I'm gonna catch you against no you're not, or is it very much about the technique, the times, how we trained today….

M20.1-SWIMMING-DEVT:
I wouldn't way it's serious as in I'm gonna beat you or something it's just friendly

M19.3-SWIMMING-DEVT:
Friendly yeah, things like after a race a are very different as well, like you did this wrong, you did this right, like when it comes up to the race day you're pretty serious with each other, and very much keep quiet.

F19.4-SWIMMING-DEVT:
Do you actually talk to each other while you're waiting to go up to the blocks?

M20.1-SWIMMING-DEVT:
No

[Laughter]

F20.4-SWIMMING-DEVT:
No you don't, you keep apart then?

M20.1-SWIMMING-DEVT:
Well like before that we, we say I'm with you this time, like you're in the back wall

INTERVIEWER:
It sounds like it's important that it's bant (Yeah) like if it was serious it would be quite….

M20.1-SWIMMING-DEVT:
Yeah during training, bant just goes on every day but during a race you wouldn't do it at all.

F20.4-SWIMMING-DEVT:
I think it does change

M19.3-SWIMMING-DEVT:
You wouldn't do it on race day. I don't think, unless it was a minor competition

M20.1-SWIMMING-DEVT:
Yeah if it was just like a silly little competition like a minor event then, yeah. If it's like, if you're stepping out of your event and doing something that you're both not good at or something then I guess, you cane have a bit of sun sometimes.

F20.4-SWIMMING-DEVT:
It takes the pressure off you.

INTERVIEWER:
Ok, what can then… sorry there's nothing else on that is there? Fairly good so far? What might team-mates do where it could become a fearful situation for you where you are worries about messing up? Can people influence you towards being fearful and worried?

F20.4-SWIMMING-DEVT:
there's a certain person who I always race with who is so unbelievably negative about their own swim before we swim. And it's just, it never, it never affects them, they always swim really well anyway, but it's just really hard to hear someone say oh I'm gonna swim really crap and yeah well I don't expect to do faster than this and mur-mur-mur-mur-mur-mur, that can really affect you I think.

F19.4-SWIMMING-DEVT:
That's why I don't talk to people before a race!

F20.4-SWIMMING-DEVT:
I do though I can't help it. I have to talk to people before I race, I will talk until literally when we get on the blocks.

F19.4-SWIMMING-DEVT:
You can talk to me Jules but I might not listen!
[Laughter]

F20.4-SWIMMING-DEVT:
And again that's so individual, so, but they can definitely affect the way you swim in that way because everyone's different. So, like Amy, I could affect her by chatting to her the whole time before the race when she wants to be quiet. Which I might do next time!

[Laughter]

F19.4-SWIMMING-DEVT:
Like I find that sometimes people are so positive as well, like make me negative, it's really strange, but if you're like just before the race and they're like oh yeah I've done this I've done that, training's gone really well I just know I'm gonna go fast! And I'm just like, ok.

M20.1-SWIMMING-DEVT:
We used to do that when we were younger like oh yeah I've swum national times, I got this time in training

F19.4-SWIMMING-DEVT:
It's not like they're trying to psych you out but with me it does sometimes, that's why I don't like talking to people.

F20.4-SWIMMING-DEVT:
Again good advice

INTERVIEWER:
It sounded like there's a split in there between someone being quite positive and someone going a bit further and boasting and there might be a difference in there

M20.1-SWIMMING-DEVT:
If they start boasting then you just wanna whip their ass

F19.4-SWIMMING-DEVT:
Well yeah but if it goes to that then you are just like, well I've got to beat you now.

M20.1-SWIMMING-DEVT:
You've given me no option but to beat you

F20.4-SWIMMING-DEVT:
I love that one, I love that one. It's the best thing when you're like in lane 8 as well cos you're like yeah well I'm in lane 8 so I'm supposed to come last, but I'm not gonna!

M20.11-SWIMMING-DEVT:
Did you find that as well when you were younger they used to have cards to sat what lane you're in and they used to look at your cards and say 'what lane you in?' and if you could say 4…
[Laughter]

F20.4-SWIMMING-DEVT:
And whoever was in Lane 4 everyone was like oooh.
[Laughter]

F20.4-SWIMMING-DEVT:
This is like little stuff but I dunno being negative that really annoys me because, especially when I find myself, when it's a friend or another swimmer that you know, I find myself spending all *my* time saying no, no, no don't worry it's alright you're gonna do well because this, this, this… why should I spend my time doing that when I should be thinking about my own race? It's kind of like, please don't make me have to try and help you, almost.

F19.4-SWIMMING-DEVT:
It takes the focus off your own race doesn't it, cos you get to it and you're like I haven't really thought about it, I've been thinking about getting them sorted.

F20.4-SWIMMING-DEVT:
And they probably don't even need it, they probably don't even mean what they're saying, but they're saying it anyway

F19.4-SWIMMING-DEVT:
But in that respect then they have influenced your race. Because they've taken your mind off it.

INTERVIEWER:
It's an individual sport, I'm just picking up on whatever I can in this last minute or two. Is there anything about being part of a team that can be motivating, or is it very much

F20.4-SWIMMING-DEVT:
Absolutely yeah everything.

INTERVIEWER:
Ok, I mean how? What's the feeling of it like?

F20.4-SWIMMING-DEVT:
Oh god I reckon it was amazing um, the difference that people cheering and getting behind you in a race, like you have no idea. Like you think you can swim your best on your own but you cant. Like, you need other people, you need to know other people, like when you breathe you need to see other people who are actually living it with you, like, waving their arms and shouting for you, it actually does make you feel less tired doesn't it? You see someone wave and you just feel Oh God I've just suddenly got some more energy.

F19.4-SWIMMING-DEVT:
Like, you don't feel like you're out there on your own do you?

F20.4-SWIMMING-DEVT:
And that's the thin because when people are up there cheering, I know that like I'm in the race still as well, like, so I think you do sort of raise your game.

M20.11-SWIMMING-DEVT:
Quite a lot of people swim a lot faster for a relay team or something.

F20.4-SWIMMING-DEVT:
And that, when you know that someone's waiting for you, and the quicker you go the happier they'll be, I dunno.

F19.4-SWIMMING-DEVT:
Like a bigger team, like, I came from a club where I went to competitions and there was no-one else there but me, apart from my parents, and not even my coach went, and then making the jump from that to coming to Loughborough where there's so many people at all the competitions, it made a huge difference I though, just to know that you've got people there that are supporting you, cos you're on their team. Then I think that made such a difference. It like, my times got faster and I think partly it's down to that change in situation, not just the training. Down to having the support of the team.

F20.4-SWIMMING-DEVT:
I definitely totally agree with Amy there, like I used to go to nationals on my own, for Winchester, and um, the difference that it makes, like you actually worry cos they announce your names before you start, you worry that no-one's gonna clap for you and no-one did! It would be my mum going [clapping] in the whole pool and that was it. So "Lane 8, Julia Beckett… mum" but now, the fact that they say Julia

Beckett from Loughborough and then everyone screams, it actually makes you feel like, and you chuckle when someone next to you gets a little clap, I chuckle to myself now but it used to be me!

F19.4-SWIMMING-DEVT:
Yeah it's like if you had someone like before and you haven't got your team with you and you had someone before you who was from a huge club, I used to like

F20.4-SWIMMING-DEVT:
I used to worry so much ,like Oh God it's me next and no-ones gonna cheer, so it makes a difference as well, it makes you less nervous because you know people are gonna cheer for you. I mean how silly is that?

F19.4-SWIMMING-DEVT:
Yeah

F20.4-SWIMMING-DEVT:
Like, I dunno.

M20.11-SWIMMING-DEVT:
It's like when you're at junior galas when you're younger and your lane was the only lane with someone behind the blocks at the other end like, calling you in

F20.4-SWIMMING-DEVT:
Yeah it makes you think that you can do so much better, just like having the support behind you, so being in a team definitely makes a massive difference. But it is, you can't get away from the fact that it is an individual sport as well, but like Loughborough always win, like Loughborough swimming always win team of the year and stuff, and it's an individual sport. And you think well actually that's really nice to know that everyone comes together and works together, so it means you are helping everyone even though you're swimming it on your own, individual people are swimming it in the end.

INTERVIEWER:
This is probably what I'm getting at then, if I'm the appraiser for that competition, team of the year, what things am I picking up from this team that makes them such a good team, what behaviours and actions.

F20.4-SWIMMING-DEVT:
We stick together, we encourage each other

F19.4-SWIMMING-DEVT:
But it is it's just support

F20.4-SWIMMING-DEVT:
Yeah encouragement, and not being, there's no, I mean maybe it's just me but I definitely see no nastiness in the team, like, you know what I mean?

F19.4-SWIMMING-DEVT:
There's rivalry but it's not bad

F20.4-SWIMMING-DEVT:
Yeah It's not bad

M20.11-SWIMMING-DEVT:
Healthy rivalry

F20.4-SWIMMING-DEVT:
And everyone's together and everyone want's everyone to do well even though you wanna beat them, you still want them to do well even though they're in your team, so it pushes everyone on, and I think we win that because…

M20.11-SWIMMING-DEVT:
Team spirit

F20.4-SWIMMING-DEVT:
Yeah team spirit.

INTERVIEWER:
So sort of support, cheering, encouragement, um, friendly rivalry, I'm assuming you mean kind of tit-for-tat improvement, pushing each other in a positive way, like if we both compete then we'll both improve, that kind of thing?

F20.4-SWIMMING-DEVT:
Mmm-hmm, yeah

INTERVIEWER:
Yeah?

F19.4-SWIMMING-DEVT:
I think if you know as well if you do swim badly or something there's always someone there you can talk to as well, that's not gonna be racing. So, you're not gonna affect them. So, like, not, well you know, you know like you've just, again, the support even after the race, like, you can just go and talk to someone about it.

INTERVIEWER:
Okay, er, 2 minutes maybe? Briefly in that time, what would you guys say are the most important factors in improving your motivation. From any of those people we've talked about. So, summarise for me almost.

M20.11-SWIMMING-DEVT:
For me it's team-mates followed by coach.

F20.4-SWIMMING-DEVT:
Support, um, mine would be [pause] to influence my motivation like either way, like coach and then team-mates.

INTERVIEWER:
Ok I mean not just people but what is it that they do, is it encouragement and support from all of them, or certain ones? Just guessing

M19.3-SWIMMING-DEVT:
I think the number one thing is just believing on yourself, I think you get the most motivation out of yourself, first. And then second would just be words and talking to people.

M20.1-SWIMMING-DEVT:
You always need someone to reinforce that belief.

F20.4-SWIMMING-DEVT:
Yeah, a lot of the times they can say quite a bit but that doesn't necessarily mean that's the biggest influence.

INTERVIEWER:
Um, one of my favourite questions is what advice would you give to a coach, if they came to you and said how can I keep my swimmer motivated? What advice would you be giving to them?

F20.4-SWIMMING-DEVT:
I'd say, I'd say ask them exactly when they want you to do. That's it.

INTERVIEWER:
As opposed to?

F20.4-SWIMMING-DEVT:
Like ask them, like you know if a coach came to me and said how am I going to motivate my own I'd say go and ask them. Say like what do you want me to do before a race, what do you want me to do after a race? What do you want me to do during training, what would *you* like? And then be supportive and help them

INTERVIEWER:
And that's in contrast to being quite a dictator by the sound if it?

F20.4-SWIMMING-DEVT:
Yeah

M20.11-SWIMMING-DEVT:
I would say they just need to be a calming positive kind of guiding influence.

M20.1-SWIMMING-DEVT:
One thing I like is when coaches don't give too much praise too often. So you feel that you have to work for it and when you get it's like really encouraging, and you know you've done something really good.

M19.3-SWIMMING-DEVT:
I think as well treating everyone in the group as an individual, like not treating it as one group but talking to every person differently, what they want individually rather than as a whole group.

F19.4-SWIMMING-DEVT:
I think as well in like training wise, they, coaches need to know like, they have to act differently depending on like what mood their swimmer's in, I think they need to pick up like pretty early on

M20.11-SWIMMING-DEVT:
Yeah a good judge of character

F19.4-SWIMMING-DEVT:
Like yeah what mood they're in determines how you treat them in that training session. And it can change like daily so, they just need to be really aware, of their swimmer and how they're feeling.

INTERVIEWER:
Ok

F20.4-SWIMMING-DEVT:
I think picking up just quickly on Dan's point about like treating everyone individually and like treating them separately talking differently to different people, I totally agree with that but there is a line as well, cos there's problems with that when it's like favouritism, is just…

INTERVIEWER:
I was gonna ask that, do coaches show favouritism and what effect does that have?

F20.4-SWIMMING-DEVT:
Yeah definitely, definitely.

INTERVIEWER:
Ok quickly can we explore that how does it come across, how do you see it, how does it make you feel?

F20.4-SWIMMING-DEVT:
I think with favouritism in ours I think it's more um that the treatment of different people say when they're tired for example, if I'm tired it doesn't matter I have to keep going all the time anyway and like up and down up and down and I'm still doing it, but when other people are tired it's like oh it's alright it's ok rest off. Or, just do a 50 and get out or something like that and I don't like that it's different. I'd rather know the reason why it's different, than…

INTERVIEWER:
So you don't know.

F20.4-SWIMMING-DEVT:
No I don't know that's the thing and people do get spoken to slightly differently and it is prominent and I don't know whether it's prominent in all groups, like, but favouritism definitely.

INTERVIEWER:
So like the killer question is what effect does that have on your motivation?

F20.4-SWIMMING-DEVT:
Well sometimes I think, just what I think is I just sort of make my own little things up, like 'well I'm actually doing it' so I'm gonna get the benefit from doing this.

M20.11-SWIMMING-DEVT:
It can go 2 ways it can demotivated you in terms of not paying attention to you or it can motivation you to try and get attention through performing better, it just depends on the person and how it affects you.

INTERVIEWER:
Ok. So, different sort of tasks, different reactions to someone being tired, different ways of speaking to people can be seen as favouritism, um…

F19.4-SWIMMING-DEVT:
I think they give you different levels of motivation sometimes as well, like in a set they say come on you've gotta do this you've gotta do this, like just try and go that little bit faster but then on others they're like right you hit that time, and then walk off.
[Laughter]

F20.4-SWIMMING-DEVT:
I find the worst thing is like, I mean, and they might not even do it on purpose, but like say they have four people or three people swimming together and you all hit the wall at pretty much the same time, and

he'll say to one person well done. Specifically that person, well done that was a good time. And the others sit there looking and waiting… Oh. Not me then. Just…

INTERVIEWER:
Specific praise.

F20.4-SWIMMING-DEVT:
Just to one person, I'm not sure whether like that was intentional or you know? But…

INTERVIEWER:
So it can come across as favouritism if you all do the same thing and only one gets praised.

F20.4-SWIMMING-DEVT:
And you're tired and emotional and [Laughs]

F19.4-SWIMMING-DEVT:
I suppose as well though I suppose if you're the one that got it, I suppose sometimes (more pressure?) well it is but like sometime you're like, I don't want it because eventually your team-mates will come to resent you, and they're like well why should you get more praise? And you don't want that, that just puts you off in the end. So it can…

INTERVIEWER:
No that's a good point, a really good point I hadn't thought of that. So thank you, um, I think we'd better call it to a close there. Um, thank you so much for coming along and giving your opinions, as I say it's all confidential so no-one will ever know and I'd suggest you do the same sort of thing and don't dob each other in [Laughter] but yeah thank you very much.

Appendix I: Pivot tables for meta-interpretive analysis process

Appendix Ii: Initiation/sampling

Roles being performed	Initiation-sampling		
	COACH	**PARENT**	**PEERS**
Pre-performance motivating behaviours	**a. Encouraging effort and mastery** 1. Improvement emphasis 2. Encouraging participation **b. Encouraging rivalry and competition** 1. Building up rivalries 2. Focus on winning **c. Approach-based and positive emphasis** 1. Showing confidence in athlete 2. Highlighting positive possibilities **d. Avoidance and negative approaches** 1. Avoidance goals 2. Emphasises negative consequences	**a. Encouraging effort and participation** **b. Concern for results** **c. Avoidance-based motivations** 1. Pressure to perform well (Babkes & Weiss, 1999) 2. Exhibiting lack of confidence in athlete (Babkes & Weiss, 1999) **d. Approach-based motivations** 1. Building confidence 2. Demonstrating belief/confidence in athlete (Babkes & Weiss, 1999)	***a. Effort emphasis*** *1. "Do your best" (Vazou et al., 2005)* *2. "Play your own game" (Vazou et al., 2005)* ***b. Emphasis on winning*** *(Vazou et al., 2005)* ***c. Pressurising behaviours*** *1. Trying to distract / put each other off* *2. Highlighting importance / negative consequences* *3. Don't want to lose (Vazou et al., 2005)*
Training and learning	**a. Equal treatment and perceived fairness** 1. Equal treatment 2. Unequal treatment **b. One-to-one coaching** **c. Grouping of athletes** 1. Heterogeneous ability groupings 2. Homogeneous ability groupings **d. Task design** 1. Creating competition in practice 2. Variety and fun 3. Tasks at optimal level 4. Repetitious or emphasising a single skill **e. Selection** 1. Selection based on mastery 2. Competition for places **f. Use of modelling-demonstration** . Demonstrating techniques (AND Conroy & Coatsworth 2007) **g. Instructional support** 1. Clear instruction (McCarthy & Jones, 2007) 2. Lack of information (McCarthy & Jones, 2007)	**a. Facilitation of practice** 1. Encouraging practice 2. 'Garden play' – informal-fun involvement 3. Practice / play with child (Babkes & Weiss, 1999) **b. Balance of instruction and practice/play** **c. Conflicting advice to the coach**	**a. Playing style / decisions** Collaborative play in sport (Weiss et al., 1996) Discriminatory behaviours and decisions **b. Emphasising effort** **c. Encouraging / praising practice** **d. Collaborative learning** 1. Offering advice-help (also in Weiss et al., 1996) 2. Withholding advice-help 3. Extra practice in spare time **e. 'Positive rivalry' (also in Weiss et al., 1996)**
Evaluation and feedback	**a. Evaluation criteria** 1. Mastery-based evaluation 2. Normative evaluations 3. Fault-finding' **b. Verbal feedback** 1. Praise and positive feedback (AND Conroy & Coatsworth 2007) 2. Criticism and negative feedback (AND Conroy & Coatsworth 2007) 3. Ability beliefs conveyed in feedback **c. Behavioural reinforcement** 1. Punishment for mistakes (+McCarthy & Jones, 07) 2. Punishment for unsporting behaviour 3. Rewarding normative success 4. Effort-contingent reinforcement 5. Lack of appropriate reinforcement (McCarthy & Jones, 2007)	**Verbal Feedback** **a. Parent criticism** 1. Negative feedback 2. Constructive feedback **b. Comparisons** **c. Positive feedback** **d. Behavioural reinforcement** 1. Effort contingent reinforcement 2. Outcome contingent reinforcement	**a. Post-hoc comments** 1. Discussing team selections 2. Praise and positive feedback 3. Criticism and negative feedback
Emotional and affective responses	**a. Coach propensity for anger** **b. Positive affective style** 1. Congratulation of success (Conroy & Coatsworth 2007) 2. Warm-friendly style 3. Friendly relationship (Conroy & Coatsworth 2007) **c. Tolerant coach**	**a. Parent propensity for anger** **b. Tolerance of failures** **c. Positive affect** 1. Happiness and cheering 2. Congratulating good performances (Babkes & Weiss, 1999) **d. Emotional intensity** 1. Over-involvement (McCarthy & Jones, 2007) 2. Living every moment	**a. Competitive body language** **b. Negative reactions to defeat** **c. Reactions to mistakes** 1. Anger and criticism 2. Mistakes tolerated 3. Accepting / tolerant of mistakes (Weiss et al., 1996)
Deployment of authority / leadership	**a. Collaborative style** 1. Allowing criticism (Assor et al.2002) 2. Fostering / highlighting relevance (Assor et al.2002) 3. Providing choice (Assor et al.2002) 4. Offering choices and options (C + C, 2007b) 5. Seeks athlete opinion (Conroy & Coatsworth, 2007b) 6. Listens to athletes (Conroy & Coatsworth, 2007b) 7. Praising autonomous behaviour (C + C 2007b) **b. Controlling style** 1. Prescriptive decisional style 2. Denying choices 3. Controlling prescriptive style (AND C + C 2007a) 4. Forcing athlete to "do it my way" (C + C 2007a) 5. Suppressing criticism (Assor et al.2002) 6. Insisting on meaningless tasks (Assor et al.2002) 7. Intrusion and 'meddling' (Assor et al.2002) **c. Maintaining discipline**	**a. Collaborative style** **b. Controlling style** 1. 'Not letting me express myself' 2. Trying to influence career and selections 3. Using rewards as a mechanism of control **c. Different parenting styles 'balance out'** **d. Knowledge-experience of sport**	**Very little explicit leadership as no formal hierarchy. Instead 'leadership' behaviours seem to be shown elsewhere**
Social Support	**Mainly instructional / instrumental – contained above**	**a. Material Support (++**Bengoechea & Strean, 2007) 1. Logistical support (Gould et al., (2008) 2. Sacrifice of time/effort (Gould et al., (2008) (Beltman & Volet, 2007) 3. Providing transport (Beltman & Volet, 2007) 4. Watching-spectating 5. Advocacy – encouraging play (Babkes & Weiss,1999) **b. Emotional support** 1. Emotional support 2. Lack of emotional support (McCarthy & Jones, 07)	**a. Rivalry and conflict** 1. Fostering rivalry and conflict (McCarthy & Jones, 2007) 2. Boasting contributes to rivalry 3. Absence of conflict (Weiss, Smith and Theeboom) 4. Conflict resolution (Weiss, Smith and Theeboom) **b. Emotional and moral support**

		c. Support is unconditional	1. Lack of emotional support (McCarthy & Jones, 2007) 2. Emotional and moral support (also in Weiss et al. 1996) 3. Prosocial behaviour (available / supportive / 'nice') (Weiss et al. 1996) 4. Emotional sharing ' "intimacy" (Weiss, Smith and Theeboom 5. Loyalty (stick up for each other, pick each other up, depend on each other (Weiss et al. 1996) 6. Building confidence in each other 7. Enhancing each other's self worth (McCarthy & Jones, 07)
Social relationships and belonging	**Relationship with coach seems to contain very few references to affiliation / friendship, instead having a more 'one way' nature (e.g., control, responsibility, protection). As such these aspects are contained above.**	**Relationship with parents seems to contain very few references to affiliation / friendship, instead having a more 'one way' nature (e.g., control, responsibility, protection). As such these aspects are contained above.**	**a. Competence-relatedness nexus** 1. Social recognition for competence (McCarthy+Jones, 07) 2. Linking success with friendship 3. Separating competence from social outcomes **b. Friendship and affiliation** 1. Social involvement and friendships (McCarthy+Jones,07) 2. Companionship (Weiss et al., 1996) **c. Group identity and perceived belonging**

Appendix Iii: Specialisation

Roles being performed	Specialisers		
	COACH	**PARENT**	**PEERS**
Competition climate	**a. Encouraging effort and mastery** 1. Emphasising tasks and roles 2. Emphasising participation and effort 3. Setting personal goals 4. Coach emphasis on learning / enjoyment (Bengoechea & Strean, 2007) **b. Competitive emphasis** 1.Encouraging rivalry and competition 2. Coach emphasis on winning (Bengoechea & Strean, 2007) **c. Avoidance and negative approaches** 1. Highlighting negative consequences 2. Pessimistic approach to competition 3. Using de-selection as a threat 4. Pressure to work/try harder (Bengoechea & Strean, 2007) **d. Approach-based and positive emphasis** 1. Building up confidence 2. Showing pride and belief 3. Highlighting positive possibilities **e) Passion and energisation**	**a. Encouraging effort and mastery** 1. 'Everybody contributes' 2. 'Play your own game' 3. Emphasising participation and effort 4. Parent emphasis on learning/ enjoyment **b. Pressurising behaviours** (AND Reeve et al., 2009) 1. Exhibiting lack of confidence in player (Gould et al., (2008) (Babkes & Weiss, 1999) 2. High expectations AND (Pummell et al., 2008) 3. Discussion of consequences 4. Pressure to perform well (Babkes & Weiss, 1999) **c. Competitive emphasis** 1. Emphasis on winning / outcomes (Gould et al., (2008) 2. Pressure for selection **d. Building confidence** Beliefs about competence (positive / good) (Babkes & Weiss, 1999)	**a. Effort emphasis** 1. "Do your best" (Vazou et al., 2005) 2. "Play your own game" (Vazou et al., 2005) 3. Lead by example by exerting effort (Vazou et al., 2005) 4. "Keep going, never give up" (Vazou et al., 2005) **b. Emphasis on winning** (Vazou et al., 2005) **c. Pressurising behaviours** 4. Trying to distract / put each other off 5. Highlighting importance / negative consequences 6. Don't want to lose (Vazou et al., 2005) **d. Playing style** ***Collaborative*** 1. Collaborative play in sport (Weiss, et al) 2. Get everyone involved in the game (Vazou et al., 2005) 3. 'Pleasant play' (Weiss & Smith, 1999) 4. Inclusive decisions and behaviours 5. Play as a team / work together (Vazou et al., 2005) ***Discriminatory*** 1. Discriminatory behaviours and decisions 2. 'Glory hunter' – playing own game not involving others (Vazou et al., 2005) 3. Show-off – displaying unnecessary skills to show off (Vazou et al., 2005)
Training climate	**a. Equal treatment and perceived fairness** 1. Differential treatment 2. Equal opportunities in selection 3. Equality in feedback 4. Perceived unfairness in selection **b. One-to-one coaching** **c. Groupings in practice** **d. Task design** 1. Creating competition in practice 2. Variety and fun 3. Tasks focussed on results 4. Giving plenty of time to learn 5. Tasks at optimal level 6. Repetitious drills 7. Playing without learning **e. Selection** 1. Competition for places 2. Consistent team selection 3. Selecting on 'form' 4. Squad rotation 5. 'Nobody is secure' 6. Lack of opportunity (Reeve, Nicholls et al., 2009) **f. Use of modelling-demonstration** 1. Asking me to model 2. Asking other athletes to model 3. Demonstrating techniques (AND Conroy & Coatsworth, 2007a) **g. Informational support** a. Clear instruction (McCarthy & Jones, 2007) b. Lack of information (McCarthy & Jones, 2007) c. Technical advice (Pummell et al., 2008)	**a. Over-involved behaviours** 1. 'Taking the game home' 2. Accepting reflected glory 3. Embarrassing behaviour during competition **b. Instructional behaviours** 1. Confusion and conflict with coach (AND Reeve et al., 2009) 2. Reinforcing coach's advice 3. Overloading with advice 4. Instructional-process support (Gould et al., (2008) 5. Getting involved in coaching (Gould et al., (2008) 6. Undermining coach (Gould et al., (2008 AND Reeve et al., 2009) 7. reinforcing poor advice (Gould et al., (2008) 8. Additional coaching / advice (Holt et al. 2009) 9. Shouting instructions during competition (Holt et al. 2009) **c. Facilitating practice** 1. 'Garden-play' (Informal-fun practice) (AND Bengoechea & Strean, 2007) 2. Encouraging practice 3) Practice / play with child (Babkes & Weiss, 1999) 4) Parents help to practice (Pummell et al., 2008)	**a. Emphasising effort and mastery** 1. Encourage to improve weaknesses (Vazou et al., 2005) 2. Encourage improvement (Vazou et al., 2005) 3. Encourage effort in training (Vazou et al., 2005) 4. "Policing effort levels" (Vazou et al., 2005) 5. Socially reinforce effort by hanging out with effortful players (Vazou et al., 2005) **b. Collaborative learning** 1. Offering advice-help (also in Weiss, Smith and Theeboom) 2. Withholding advice-help 3. Extra practice in spare time (Bengoechea & Strean, 2007) 4. Asking for / giving advice (Vazou et al., 2005) 5. Help each other / teach each other (Vazou et al., 2005) **c. 'Positive rivalry'** (also in Weiss, Smith and Theeboom) d. **Competitive emphasis** 1. Strive to outperform each other (Vazou et al., 2005) 2. Encourage others to outperform each other (Vazou et al., 2005) 3. Teasing lesser players (Vazou et al., 2005)
Evaluation climate	**a. Evaluation criteria** 1. Mastery-based evaluations 2. Normative evaluations 3. Fault-finding/scrutinising **b. Valence of feedback** 1. Praise and positive feedback (AND Conroy & Coatsworth, 2007a) 2. Criticism and negative feedback (AND Conroy & Coatsworth, 2007a) (Reeve et al., 2009) 3. Balanced feedback 4. Lack of feedback (Reeve et al., 2009) 5. Honesty of evaluations **c. Implicated conception of the nature of ability** 1. Entity conception i. Labelling-Summative ii. 'No point helping' 2. Incremental conception i. Constructive-formative ii. Always offer help **d. Public vs. Private feedback** **e. Timing of feedback** **f. Reinforcement strategies** 1. Punishment for mistakes (AND McCarthy & Jones, 2007) 2. Rewarding normative success 3. Effort-contingent reinforcement 4. Lack of appropriate reinforcement (McCarthy & Jones, 2007)	**a. Verbal feedback** 1. Criticism and negative feedback (AND Reeve et al., 2009) i. Constant-lingering criticism ii. Negative feedback (Holt et al. 2009) iii. Derogatory comments (Holt et al. 2009) 2. Balanced feedback (AND Holt et al. 2009) 3. Praise and positive feedback (AND Holt et al. 2009) 4. Implicated conception of the nature of ability i. Formative-constructive ii. Summative-labelling 5. Honest evaluations **b. Comparative behaviours** 1. Comparisons to other children (Gould et al., (2008) 2. Bragging in child's achievement – reflected glory (Gould et al., (2008) **c. Behavioural reinforcement** 1. Effort-attitude contingent 2. Unconditional praise 3. Outcome contingent reinforcement 4. Stress external reward structures (Gould et al., (2008)	**a. Evaluation criteria** 1. Evaluate based on improvement (Vazou et al., 2005) 2. Evaluate based on effort (Vazou et al., 2005) 3. Evaluate overall 'performance' (Vazou et al., 2005) 4. Evaluate based on peer acceptance (Vazou et al., 2005) **b. Verbal commentary** 1. Praise and positive feedback Praise for improvement (Vazou et al., 2005) Positive feedback? (Beltman & Volet, 2007) Praise for good skill 2. Criticism and negative feedback 3. Honest in feedback to each other **c. Comparative behaviours** 1. Gossip over selections 2. Normative evaluations (Vazou et al., 2005) 3. Comparative evaluation (Vazou et al., 2005)

Emotional climate	**a. Coach propensity for anger** 1. Anger over defeats 2. Anger over mistakes **b. Positivity and optimism** 1. Positive affective style 2. Encouragement after mistakes 3. congratulation of success (Conroy & Coatsworth, 2007a) **c. Coach tolerance** 1) Defeats tolerated 2) Mistakes tolerated	**a. Parent propensity for anger** 1. Anger over mistakes 2. Anger over defeats (and wins (Gould et al., (2008) **b. Tolerance of failures** 1. Staying calm/control emotions (Gould et al., (2008) 2. "Never mind" / "Better luck next time" **c. Pride and positive affect** 1. Congratulating good performances (Babkes & Weiss, 1999) (Holt et al. 2009) 2. Happiness / pride **d. Emotional intensity** 1. Over-involvement (McCarthy & Jones, 2007) 2. Making it 'too important' (Gould et al., (2008) 3. Emotional intensity (Holt et al. 2009)	**a. Reactions to mistakes** 1. Anger and criticism i. Criticism for mistakes (Vazou et al., 2005) ii. Negative affect (e.g., heads go down) after mistakes (Vazou et al., 2005) iii. Ridicule for mistakes (Vazou et al., 2005) 2. Encouragement after mistakes (AND Vazou et al., 2005) i. . Tolerate mistakes (Vazou et al., 2005) ii. Joke about / devalue mistakes (Vazou et al., 2005) iii. Offer advice after mistakes (Vazou et al., 2005) 3. Accepting / tolerant of mistakes (Weiss, Smith and Theeboom) b. **Reaction to defeat** 1. Anger / unhappiness if lose (Vazou et al., 2005)
Authority climate	**a. Autonomy supportive behaviours** 1. Collaborative decision style 2. Open 'hands-off' approach 3. Freedom of information – keeping athlete informed (Pummell et al., 2008) 4. Offering choices and options (Reimboth, Duda and Ntoumanis 2004) (Conroy & Coatsworth, 2007b) 5. Allowing criticism (Assor et al.2002) 6. Fostering / highlighting relevance (Assor et al.2002) 7. Providing choice (Assor et al.2002) 8. Seeks athlete opinion (Conroy & Coatsworth, 2007b) 9. Listens to athletes (Conroy & Coatsworth, 2007b) 10. Praising autonomous behaviour / decision (Conroy & Coatsworth, 2007b) 11. Provides rationale (Spray et al., 2006; Reeve et al., 2002) **b. Controlling style** 1. Controlling prescriptive style (AND Conroy & Coatsworth, 2007a) 2. Denying choices 3. Forcing athlete to "do it my way" (Conroy & Coatsworth, 2007a) 5. Suppressing criticism (Assor et al.2002) 6. Insisting on meaningless / irrelevant tasks (Assor et al.2002) 7. Intrusion and 'meddling' (Assor et al.2002) 8. "Building dependence" – athlete 'rudderless' without controlling influence (Bengoechea & Strean, 2007) **c. Maintaining discipline** **e. Behavioural responses to pressure** 1. Competitive responses 2. Mastery responses **f. Coach experience** 1. Experience of the sport 2. Technical knowledge **g. Relationships with athletes** 1. Liking and trust (closeness) 2. Friendly relationship (Conroy & Coatsworth, 2007a) 3. Dedication-commitment 4. Can count on coach (Reimboth et al.,2004)	**a. Autonomy supportive style** 1. Open communication (Gould et al., (2008) 2. Hold child accountable (Gould et al., (2008) 3. Allow child the 'earn' autonomy (Gould et al., (2008) AND (Holt et al. 2008) 4.'Minimal pressure' – avoiding 'steering' (Holt et al. 2008) 5. Involving child in decisions (Holt et al. 2008) 6. Providing choice (Holt et al. 2008) 7. Supporting decision making (Holt et al. 2008) 8. Open, two way communication (Holt et al. 2008) 9. Supportive not overbearing (Gould et al., (2008) (Holt et al. 2009) **b. Controlling style** 1. 'Pushy' controlling style (AND Holt et al. 2008) 2. Pressure and influence on coach 3. Over involved and controlling (Gould et al., (2008) 4. Pressure to participate (Gould et al., (2008; Bengoechea & Strean, 2007) 5. Restricting / preventing play (Gould et al., (2008) 6. Doesn't listen to child (Gould, Lauer, Rolo et al (2008) 7. High involvement (Holt et al. 2008) 8. Strict rules / curfew (Holt et al. 2008) 9. One way communication (Holt et al. 2008) **c. Differences and inconsistencies** 1. Creates 'wriggle room' 2. Inconsistencies between parents (Holt et al. 2008) 3. Inconsistencies between situations (Holt et al. 2008) **d. Managing athlete behaviour / discipline** 1. Discipline poor behaviour (Gould et a., (2008) 2. Emphasise sportsmanship and moral behaviour (Gould et a., (2008) 3. Role model sportsmanship and moral behaviour (Gould et a., (2008) 4. Ignoring cheating / poor behaviour (Gould et al., (2008) **e. Parents' expertise** 1. 'Something to aim for' 2. Knowledge informs criticism 3. Knowledge helps them coach me 4. Naivety 5. Also in (Holt et al. 2009) **f. Maintaining 'perspective' (Gould et al., (2008)** 1. Focus on process not outcome(Gould et al., (2008) 2. Equal treatment of siblings (Gould et al., (2008) 3. Keeping sport in perspective(Gould et al., (2008) 4. Understand LT vision / pathway (Gould et al., (2008) 5. Failing to plan / understand development (Gould et al., (2008) 6. Making child grow up too fast (Gould et al., (2008)	**a. Autonomy supportive climate** 1. Democratic decision style (Beltman & Volet, 2007) 2. Constant open communication (Vazou et al., 2005) 3 Freedom to express opinions (Vazou et al., 2005) 4. Freedom to play however choose (Vazou et al., 2005)
Social Support Climate	**Informational and material support – contained in Training and Learning (above)**	a. **Material support** 1. Material support (AND Bengoechea & Strean, 2007) 2. Help to prepare and warm up (Pummell et al., 2008) 3. Logistical support (Gould et al., (2008) 4. Sacrifice of time/effort (Gould et al., (2008) (Beltman & Volet, 2007) 5. Providing opportunities for child (Gould et al., (2008) 6. Providing transport (Pummell et al., 2008) (Beltman & Volet, 2007) 7. Financial support (Gould et al., (2008) (Pummell et al., 2008) (Beltman & Volet, 2007) 8. Watching-spectating **b. Emotional support** 1. Emotional support (KEEGAN AND Pummell et al., 2008 AND Bengoechea & Strean, 2007) 2. Lack of emotional support (McCarthy & Jones, 2007) 3. Empathy and understanding (AND Holt et al. 2009 AND Holt et al. 2008) i. "read and reduce" pressure on child (Gould et al., (2008) (Holt et al. 2008) ii. Calm me down (Pummell et al., 2008) 4. Lack of empathy / unable to read(Holt et al. 2008) 5. Always "there for you" (Pummell et al., 2008) **c. 'Conditionality' of support** **1. Building 'indebtedness' / conditional support** i. Stressing 'return for investment' (Gould et al., (2008) ii. U sing sacrifice against child (Gould et al., (2008) iii. Conditional regard (Assor, et al., 2004) Affection dependent on success **2. Unconditional support** i. De-emphasise significance (Pummell et al., 2008) ii. Remove negative consequences – it doesn't matter how I do (Pummell et al., 2008) iii. Unconditional love/caring (Gould et al., (2008)	**a. Social Support (Beltman & Volet, 2007)** **b. Prevalence of conflict** 1. Blame and putdowns (including focus on weaknesses 2. Disregard / disinterest for team-mates 3. Absence of conflict (Weiss, Smith and Theeboom) 4. Conflict resolution (Weiss, Smith and Theeboom) 5. Boasting contributes to conflict/rivalry c. **Emotional and moral support** (AND Weiss, Smith and Theeboom) AND Bengoechea & Strean, 2007) 1. Lack of emotional support (McCarthy & Jones, 2007) 2. Prosocial behaviour (available / supportive / 'nice') (Weiss, Smith and Theeboom) 3. Emotional sharing ' "intimacy" (Weiss, Smith and Theeboom 4. Loyalty (stick up for each other, pick each other up, depend on each other (Weiss, Smith and Theeboom) 5. Look out for each other (Vazou et al., 2005) 6. Honest with each other (Vazou et al., 2005) 7. My opinion is valued and taken seriously (Allen, 2003)
Relatedness climate	**Relationship with coach seems to contain very few references to affiliation / friendship, instead having a more 'one way' nature (e.g., control, responsibility, protection). As such these aspects are contained above.**	**Relationship with parents seems to contain very few references to affiliation / friendship, instead having a more 'one way' nature (e.g., control, responsibility, protection). As such these aspects are contained above.**	**a. Linking competence to social outcomes** 1. Competence/ability impresses others (Allen, 2003) 2. (Social) Recognition for doing well (Allen, 2003) 3. Better players hang out together (Vazou et al., 2005) 4. People want to hang out with the better players (Vazou, et al., 2003) 5. Deference to better players (Vazou et al., 2005) (Look up to them / Rely on them in games / Value their opinion more)

			b. Friendship and affiliation 1. Made good friends (Pummell et al., 2008; Allen, 2003) 2. Wide range of friends (Pummell et al., 2008) 3. Socialise outside sport (Allen, 2003) 4. Companionship (Weiss, Smith and Theeboom) 5. Friendship quality (Weiss and Smith, 1999) 6. Supportiveness (Weiss and Smith, 1999) 7. Loyalty (Weiss and Smith, 1999) 8. Intimacy (Weiss and Smith, 1999) 9. Things in common(Weiss and Smith, 1999) 10. Companionship (Weiss and Smith, 1999) 11. Conflict resolution (Weiss and Smith, 1999) 12. Care about each other (Vazou et al., 2005) 13. Trust each other (Vazou et al., 2005) 14. Depend on each other (Vazou et al., 2005) **c. Group identity and perceived belonging** 1. Belonging to a popular group (Allen, 2003) 2. Part of the "in" crowd (Allen, 2003) 3. I can be myself amongst these people (Allen, 2003) 4. Sense of unity (Vazou et al., 2005) 5. Feel part of a larger whole/unit (Vazou et al., 2005) 6. Happy when team-mates do well (Vazou et al., 2005) 7. Happy when contribute to team's success (Vazou et al., 2005) 8. Feel comfortable with these people (Vazou et al., 2005) 9. Make everyone feel important (Vazou et al., 2005) 10. Make everyone feel valued (Vazou et al., 2005) 11. Care about every opinion (Vazou et al., 2005) 12. Feel obliged to 'fit in' (Vazou et al., 2005)

Appendix Iiii: Investment-mastery

Roles being performed	Investment-mastery		
	COACH	**PARENT**	**PEERS**
Competitive climate	**a. Approach-based positive motivation** 1. Building confidence 2. Emphasising positive goals 3. Highlighting positive consequences **b. Competitive motivations** 1. Highlighting rivalry 2. Highlighting competition for places **c. Encouraging effort-mastery** 1. De-emphasising rivalry 2. Focus on technique 3. Clear role to play **d. Energising behaviours** 1. Motivational videos 2. "Pride in the shirt" **e. Pressurising behaviours** 1. Highlighting importance of event 2. Pessimism and negative language 3. Scare-tactics and threats 4. "Vital role"	**a. Approach-based positive motivation** 1. Pride in athlete 2. "General" unconditional support **b. Emphasising personal performance** 1. "Just do your best" 2. Personal goals and focus **c. Pressurising behaviours** 1. Highlighting importance 2. Highlighting negative consequences	**a. Challenging each other** 1. Collaborative pushing 2. Rivalry/one-up-manship' **b. Avoidance-based motivation** 1. Highlighting importance 2. Pessimism and dejection i. In self ii. In team-mates iii. Negative affect and body-language **c. Fostering confidence** 1. "You can beat this guy" 2. "Welcome back to the team" **d. Leading by example** 1. 'Hero' 2. "Fallen comrade" 3. Their effort is inspiring **e. 'Mind-games' and 'psych-outs'**
Training climate	**a. Equal treatment and perceived fairness** 1. Differential treatment 2. Perceived unfairness in selection 3. Athletes will grow to resent 'favourites' 4. "Makes me wanna beat him" **b. One-to-one coaching** 1. Individual coaching helpful 2. Personalised goals are better **c. Groupings in practice** **d. Task design** 1. 'Positive' rewarding drills 2. 'Live' competitive practice 3. Tasks focussed on results 4. Tasks at optimal level 5. Tasks perceived to be relevant **e. Selection** 1. Clear hierarchy 2. Consistent team selection i. Reassuring for core players ii. Demotivating for fringe players 3. Competition for places		**a. Group promotes improvement** 1. Cohesion regarding improvement 2. Players drive improvement-reflection **b. Collaborative and co-operation** 1. Collaborative playing style 2. Collaborative learning i. Peer coaching ii. Joint goal-setting iii. Sharing experiences iv. Sacrificing time to help **d. 'Policing' effort levels** 1. Low effort is unacceptable 2. We push each other in every session **f. 'Positive rivalry'** 1. Real competition mixed with humour 2. Unspoken acceptance 3. "Fine line" 4. Pushing-challenging 5. Impossible without friendship **g. Refusing to help** 1. Declining requests for assistance / advice 2. Unhelpful team-mates
Evaluation climate	**a. Evaluation criteria** 1. Mastery-based evaluations 2. Normative-comparative evaluations 3. Fault-finding/scrutinising 4. Using 'objective' performance data 5. Individual vs. team evaluation **b. Verbal feedback** 1. Valence of feedback i. Positive feedback and praise ii. Negative feedback and criticism iii. Balanced Feedback 2. Timing of feedback 3. Publicity of feedback 4. Personally relevant feedback 5. Honesty / transparency of evaluations **c. Behavioural reinforcement** 1. Effort contingent reinforcement 2. Punishment of mistakes	**a. Verbal feedback** 1. Negative feedback 2. Praise and encouragement 3. Making comparisons 4. Honesty in feedback	**a. Verbal commentary** 1. Praise and positive feedback 2. Constructive advice / criticism 3. Criticism and negative feedback 4. Honesty in feedback 5. Normative comparisons
Emotional climate	**a. Coach propensity for anger** 1. Anger over defeats 2. Anger over mistakes **b. Positivity affective style** 1. Calming influence 2. Energy-enthusiasm 3. Coach's motivation transfers to me **c. Coach tolerance** 1. Defeats tolerated 2. Mistakes part of the process **d. 'Emotional range' of coach** **e. Perceived sincerity of emotion**	**a. Pride and happiness**	**a. Reactions to mistakes** 1. Anger and blame 2. Encourage-console 3. Mistakes tolerated
Authority climate	**a. Autonomy supportive behaviours** 1. Allowing the athletes to have choices 2. Collaborative decision style 3. Empowering athletes with knowledge 4. Open questioning style 5. Responsive to athlete input 6. Taking athlete's feelings into account (Kimball, 2007) 7. Providing rationale **b. Controlling style** 1. Controlling prescriptive style 2. Denying choices **c. Coach accountability** 1. Rational-predictable 2. Explains selection decisions 3. Outlines relevance of advice 4. Match analysis clearly influences next game 5. Explains key ideas / plans **d. Coach knowledge-experience** 1. Good playing/coaching record 2. Technical knowledge 3. Well connected 4. Coach not commanding respect		

	e. Supporting relatedness amongst athletes 1. Managing subs-reserves 2. 'Huddles and high-fives' 3. Spotting and preventing 'fractures' **f. Coach reflexivity-adaptability** 1. Adapts interpersonal style to each player 2. Incompatible/inflexible coaching style 3. Adapts coaching style to stage-of-season **g. Conflicting-inconsistent coaching** 1. Conflict between the coaching staff 2. Contrasting affective styles 3. Contrasting values-expectations 4. Inconsistent coaching styles		
Social Support climate	**Informational and material support – contained in Training and Learning (above)** **Emotional support represented below.**	**a. Emotional support** 1. 'Keeping me grounded' 2. Always 'there' **b. 'Watching-spectating** 1. "I like giving them a good day out" 2. Travelling long distances 3. "I want them to see how good I am" 4. "I don't want them to see me lose" 5. They only come to watch the big events 6. Keeping track of my progress **c. Unconditional support** 1. Don't make a big deal of support given 2. They support every decision I make 3. 'Distant' support – trying not to get involved **d. Managing career** 1. Pushing/challenging me to go further 2. Challenging decision to quit **e. Repaying investment (repaying "debt"?)** 1. Making them proud 2. Repaying investment made	**a. Rivalry and conflict** 1. "Sports-person-ship" 2. intentionally injuring 3. Unspoken acceptance 4. Increases with higher stakes 5. Conflict / dispute with other athletes (Farrell et al., 2004) 6. Boasting contributes to rivalry **b. Adapting own behaviour to suit colleague** 1. Adapting game to suit 2. Respecting pre-match routines 3. Need to know what buttons to push **c. Emotional support** 1. Being there for each other 2. Reassuring after poor performance 3. Obligation undermines effectiveness 4. Access to social support network through sport (Farrell et al., 2004)
Relatedness climate	**a. Close affiliation – emotional bond** 1. Friendship 2. Mutual respect 3. Understanding / familiarity 4. Trust coach to make important decisions (Kimball, 2007) 5. Conflict with coach (Farrell et al., 2004) **b. Commitment-dedication** 1. Creating opportunities for players 2. "He wants us all to do well" 3. Emotional outbursts show commitment 4. Personal time and effort invested 5. Lack of investment is de-motivating **c. Complementary behaviours** 1. Have to "know their players" and adapt 2. Must adapt approach to player 3. Familiarity improves communication	**Independent, adult athletes made little / no reference to friendship with parents, or to group membership (e.g., perhaps 'representing the family name' might be a motivational influence). Whilst these are not ruled out (indeed they may be very influential for some athletes), the current study has not found sufficient themes / findings to construct a representation in this category.**	**a. Friendship and affiliation** 1. Close friendships 2. Closeness mediates interpretation of criticism 3. 'Tight' feel 4. Closeness reduces rivalry 5. On-pitch partnerships 6. Access to social support through sporting friendships 7. Having / making friends (Farrell et al., 2004) 8. Closeness / belonging increases their influence in my life e.g., autonomy? (Kimball, 2007) **b. Group membership and belonging** 1. Team-ship is motivating 2. Team-ship reduces conflict and rivalry 3. "We look after each other" 4. Lack of team cohesion is detrimental 5. Formation of cliques 6. Feeling comfortable improves learning 7. Defending-maintaining team-ship i. "Backs to the wall mentality" ii. Rejecting criticism from 'outsiders' iii. Personal conflicts get in way of good team-ship **c. Cultural-historic influences** 1. Culture of success-achievement 2. Culture of accountability 3. Culture of improvement and effort **d. Competence-relatedness nexus** 1. Linking competence with social outcomes i. Better players stick together ii. Normative ability grants social status iii. Must play well to earn respect 2. Separating competence from social outcomes i. Friendships are irrelevant 'on the pitch' ii. Conflicts are irrelevant 'on the pitch' iii. Separation allows you to 'get on with it'

Appendix J: Table of studies excluded from the meta-interpretive analysis, with reasons

		Language (Applied prior to consideration)	Inductive emphasis	Transparency	Relevance to immediate question	Sport specific*	Motivation specific	Social & environmental (not intrapersonal)	Avoid redundancy – minimise replications	Additional comments
1	Ommundsen, Roberts & Lemyre (2006) – Clin J Spo. Med.		X	X					X	Sample also too broad, unable to categorise into one career stage
2	Harvey, Pallant & Harvey - Educ. & Psych Measurement		X	X					X	Sample also too broad, unable to categorise into one career stage
3	Abrahamsen, Roberts, Pensgaard & Ronglan (2008) Scand. J Med Sci Sports		X							Theoretically driven (AGT)
4	Houlfort, Koestner, Joussemet, Nantel-Vivier & Lekes (2002) – Mot & Emot.		X						X	Theoretically driven.(SDT) Undergraduate sample doesn't fit.
5	Hueze, Sarrazin, Masiero, Raimbault & Thomas (2006) – JASP		X	X					X	Theoretically Driven (AGT)
6	Jones & Lavallee (2009) PSE						X			
7	Ferguson & Bargh (2004) – Trends in Cog Sci		X							
8	Weiss & Duncan (1992) – JSEP		X							
9	Amorose & Smith (2003) JSEP		X							Theory-driven (CET?)
10	Wigfiend & Wentzel (2007) – Ed Psych					X			X	Review Wouldn't add anything to analysis
11	Jowett & Chaundy (2004) – Group Dynamics: Theory, Res & Prac.		X		X				X	Potentially useful but doesn't add anything to existing analysis
12	Reid, Crespo, Lay & Berry (2007) - J Sci Med Spo		X				X			Motor learning paper Ideas paper – not original research
13	Cumming, Smith, Smoll (2006) - JSEP		X							Theory-driven – uses existing scales so does not contribute NEW themes to analysis
14	Vallerand, Rousseau, Grouzet, Dumais, Grenier & Blanchard (2006) - JSEP							X		Intrapersonal passion
15	Wentzel & Watkins (2002) School Psy Rev		X			X				Review paper in teaching
16	Amorose & Anderson-Butcher (2007) PSE		X	X						Arbitrarily uses made up autonomy scale

		Language (Applied prior to consideration)	Inductive emphasis	Transparency	Relevance to immediate question	Sport specific*	Motivation specific	Social & environmental (not intrapersonal)	Avoid redundancy – minimise replications	Additional comments
17	Weiss & Smith (1999) JSEP								X	Does not contribute themes beyond original Weiss, Smith and Theeboom (1996)
18	Rowland (2006) JASP		X		X					Theory driven (transformational/transactional leadership)
19	Gurland & Grolnick (2005) Mot & Emot			X	X					Not quite relevant – behavioural coding unclear
20	Morgan, Sproule, Weigand & Carpenter (2005) Phys Ed & Sport Ped.		X							Deductively derived from TARGET (i.e. AGT)
21	Papaioannou, Milosis, Kosmidou & Tsigilis (2007) JASP		X	X						Some really odd decisions or explanations. Makes it impossible to follow. Transparency compromised
22	Boiche & Sarrazin (2007) PSE		X	X					X	Theory driven (SDT) and too general as it is based at contextual level.
23	Nien & Duda (2008) – PSE		X					X		Linked to Ap-Av goals and Intrapersonal
24	Ullrich-French and Smith (2009) PSE		X							+not necc. adding themes beyond original – taps generalised perceptions not specific behaviours
25	Ommundsen & Kvalo (2007) Scand J Ed Psych		X	X						Uses un-validated questionnaire and does not present subscales.
26	Eys, Loughhead & Hardy (2007) PSE						X			Focus on leadership – level too abstract
27	Gagne, Ryan & Bargmann (2003) JASP		X							Theoretically driven (SDT) – although speaks of an **autonomy motivational climate**. Works at contextual level not situational
28	Goudas, Biddle, Fox and Underwood (2005) TSP		X		X					Works with quite generalised teaching styles
29	Wuerth, Lee & Alfermann (2004) PSE				X				X	Constructs are too generalised – contextual at best – hence does not add to analysis
30	Smith, Ullrich-French, Walker, & Hurley (2006) JSEP		X						X	Does not add themes beyond Weiss, Theeboom & DeKnop. Uses qnaires from previous studies
31	Reeve, Jang, Carrell, Jeon & Barch (2004) Mot + Emot.			X		X				Nice idea but assessing teachers not coaches, and some concerns over "red-herring" trick used with raters
32	Bruner, Munroe-Chandler & Spink (2008) JASP			X						Not enough detail of themes (quite general) or participants (difficult to categorise into spec or mastery)
34	Olympiou, Jowett & Duda (2008) TSP		X							Uses two theoretically driven models 0 SGT and 3Cs

		Language (Applied prior to consideration)	Inductive emphasis	Transparency	Relevance to immediate question	Sport specific*	Motivation specific	Social & environmental (not intrapersonal)	Avoid redundancy – minimise replications	Additional comments
35	Mallett & Hanrahan (2004) PSE		?		X					Does not specify which social agents are influencing motivation – also contains apparent deductive influences of AGT
36	Smith (1999)		X						X	Not inductive and does not add themes beyond W,T+DK.
37	Wentzel (1998) J Ed Psych		X						X	No new themes and not fully inductive
38	Jowett (2008) Scand J Med Sci Sports				X				X	Focuses on coach motivation not athletes
39	Wentzel & Wigfield (1998) Ed psych Review		X			X				Review in education, necessarily abstract
40	Lafreniere, Jowett, Vallerand, Donahue & Lorimer (2008) JSEP		X					X		Passion chiefly an individual construct, study derived from theoretical tenets – no new themes
41	Kavussanu, Boardley, Jutkiewicz, Vincent & Ring (2008) TSP		X	X						Theoretically 'guided' and concepts too abstract to contribute
42	Elliot (1999) – Ed Psych		X	X						Focus on App-Av theory, too abstract on social/env influences
43	Elliot & Covington (2001) Ed Psych Rev		X	X						As above
45	Boardley, Kavussanu & Ring (2008) TSP			X						Too abstract and focus on perceptions
46	Koka & Hein (2003) – PSE			X						Too abstract
47	Ntoumanis & Biddle (1999) JSS		X	X						Review paper – too abstract for current purposes. Theory led (AGT)
48	Moran & Weiss (2006) JASP						X			Focus on leadership not motivation
49	Darling & Steinberg (1993) Psych Bull			X			X			Potentially useful but not sport specific and does not contribute themes to model. Too abstract.
50	Williams, Jerome, Kenow, Rogers, Sartain & Darland (2003) TSP			X						Sample not well defined. Supports basic ideas but does not add anything
51	Assor, Kaplan, Kanat-Maymon & Roth (2005) Learing and Instruction						X			Academic focus and not really adding to current analysis
52	Krane, Greenleaf & Snow (1997)		X	X						Appears to end up with an AGT model despite claims to being inductive – cannot "follow workings"
53	Pensgaard & Roberts (2002)		X							Explicitly guided by AGT
54	Smith, Smoll & Cumming et al (2006) JSEP		X				X			Does not reveal intricacies of parent behaviours that induce anxiety, especially not motivation. Instead uses CET/MAC training.

		Language (Applied prior to consideration)	Inductive emphasis	Transparency	Relevance to immediate question	Sport specific*	Motivation specific	Social & environmental (not intrapersonal)	Avoid redundancy – minimise replications	Additional comments
55	Letwaite and Scanlan (1989)			X						Not specific enough, unhelpful in building model
56	Le Bars, Ferron, Maiano & Gerginon (2006)			X						only assessed perceptions and not the bahaviours that produce them
57	White (1996+1998)		X	X						uses PIMSQ-2 - too vague and abstract - reporting perceptions of parental endorsement of goals - we need behaviours.
58	Nicaise, Bois, Fairclough et al (2007) JSS					X				Addresses PE rather than sport and appears to add nothing to existing knowledge already in the model -
59	Baker, Cote and Hawes (2000) - J Sci Med Spo			X						Sample are arguably neither specialiser of elite - (university age and varsity players) more likely to represent recreational, or perhaps 'late bloomers'
60	Cervello, Santa-Rosa, Calvo, Jiminez & Iglesias (2007) JASP		X							All climate questionnaires are exlicitly derived from Ach Goals and return only 'task' and 'ego' subscales
61	Le Bars, H; Ferron, F; Maiano, C, et al.		X						X	Adds nothing new to the analysis) and seems to be analysing 'towards' AGT
62	Morris, RL; Kavussanu, M (2008) JSS		X	X						Uses university athletes, uses old, previously validated questionnaires, and does not seem to explicity address parental influences
63	Hashim, Grove & Whipp (2008) RQES					X			X	Occurs in relation to PE and does not seem to add anything to the existing model.
64	D'Arripe-Longuevillen, Pantalteon & Smith (2006) IJSP		X	X						Uses multiple regression in a way that does not add to the developing model and also appears to be driven by Ach-Gls assumptions
65	Males, Kerr,; Thatcher, et al. (2006) TSP		X							Explicitly informed by Reversal Theory from inception
67	Skinner & Brewer (2004) JSEP							X		Focuses on cognitive appraisal of athlete not the social influences
68	Hall and Kerr (1997) TSP		X				X			Concentrates on predicting anxiety, using TEOSQ - no climate consideration, explicit endorsement of Ach Gls
69	Wolfenden & Holt (2005) JASP						X			Some nice ideas but not specific to motivation.
70	McDonough & Crocker (2007) JSEP		X	X						Uses recreational population, uses SDT as a predictor variable of emotion
71	Abrahamsen, Roberts, & Pensgaard (2008) PSE		X							
72	Barkoukis, Thorgesn-Ntoumani, Ntoumanis & Nikitaras (2007) Eur Phys Ed Rev					X			X	Does not add much and is from PE so is excluded

		Language (Applied prior to consideration)	Inductive emphasis	Transparency	Relevance to immediate question	Sport specific*	Motivation specific	Social & environmental (not intrapersonal)	Avoid redundancy – minimise replications	Additional comments
73	Byron & Solmon (2007) J Teach Phys Ed		X			X				Review explicitly advocating SDT – does not add anything as mostly quite abstract level
74	Pelletier, Fortier, Vallerand, Briere (2002) Mot & Emot		X	X						Theory led (SDT) and quite complicated design
75	Smith, Balaguer & Duda (2006) JSS		X							Theory led and adds very little to analysis
76	Blanchard, Mask, Vallerand, Sablonniere & Provenchere (2007) PSE				X					Nothing to help immediate analysis (no themes)
77	Arripe-Longueville, Fournier & Dubois (1998) TSP			X						On right lines but too abstract to contribute specific themes
78	Papaioannou, Ampatzoglou, Kalougiannis & Sagovits (2008) PSE		X	X						Theory-led (AGT) and assesses abstract perceptions
79	Fletcher & Hanton (2003) TSP						X			Some reconcilable ideas but not in relation to motivation
85	Reinboth, Duda & Ntoumanis (2004) Mot & Emot		X	X						Explicitly guided by AGT and SDT – no new themes

Appendix K – Acceptance letters for publications arising from the thesis

Appendix Ki – Acceptance letter for Study 1

Ms. Ref. No.: PSE-D-08-00104R2
Title: A qualitative investigation exploring the motivational climate in early-career sports participants: Coach, parent and peer influences on sport motivation
Psychology of Sport & Exercise

Dear Mr Richard Keegan,

A final disposition of "Accept" has been registered for the above-mentioned manuscript.

Kind regards,

Honorine Matilda Soff
Journal Manager
Psychology of Sport & Exercise

Article title: A qualitative investigation exploring the motivational climate in early-career sports participants: Coach, parent and peer influences on sport motivation
Reference: PSYSPO382
Journal title: Psychology of Sport & Exercise
Corresponding author: Dr. Richard J. Keegan
First author: Dr. Richard J. Keegan
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Final version published online: 3-MAR-2009
Full bibliographic details: Psychology of Sport & Exercise 10 (2009), pp. 361-372
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Appendix Kii – Acceptance letter for Study 2

Journal of Applied Sport Psychology

Editorial Office
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29 September 2009

Richard J. Keegan
Department of Sport, Coaching and Exercise
University of Lincoln,
Brayford Pool, Lincoln, LN6 7TS

Manuscript: 09522F

The motivational atmosphere in youth sport: Coach, parent, and peer influences on motivation in specializing sport participants

Dear Richard J. Keegan:

Thank you for your revised manuscript. I have read the manuscript as well as your responses to earlier comments by the Associate Editor. I am pleased to inform you that your manuscript has now been **accepted** for publication in the *Journal of Applied Sport Psychology (JASP).* Nevertheless, I need you to address the comments and track changes I have inserted into the document.

I would ask you to provide me with a revised manuscript marked FINAL FINAL by **29 October 2009**. You can request an extension if you need more time, but if I do not receive a revision by the established deadline then I will consider the manuscript withdrawn from the review process. In addition, be sure to provide a cover letter responding to each of the comments. You can simply indicate if you accept the proposed revisions with regard to the track changes.

Thank you for submitting your research to *JASP*. I believe that your manuscript will make a fine contribution to the literature.

Sincerely,

Stephanie Hanrahan, Ph.D.
Editor, *JASP*
jasp@psy.uq.edu.au