

1 Running Head: Motivational Atmosphere in Specializing Athletes

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9 The Motivational Atmosphere in Youth Sport: Coach, Parent, and Peer Influences on Motivation in  
10 Specializing Sport Participants

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23 Keywords: Social motivational influences, achievement motivation, self-determination, youth, coaches,  
24 parents, peers, qualitative analysis

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1 Abstract

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3 This study qualitatively examined the motivationally relevant behaviors of key social agents in  
4 specializing sport participants. Seventy-nine participants (9-18 years old) from 26 sports participated in  
5 semi-structured focus-groups investigating how coaches, parents, and peers may influence motivation.  
6 Using a critical-realist perspective, an inductive content-analysis indicated that specializing athletes  
7 perceived a multitude of motivationally-relevant social cues. Coaches' and parents' influences were  
8 related to their specific roles: instruction/assessment for coaches, support-and-facilitation for parents.  
9 Peers influenced motivation through competitive behaviors, collaborative behaviors, evaluative  
10 communications, and through their social relationships. The results help to delineate different roles for  
11 social agents in influencing athletes' motivation.

## The Motivational Atmosphere in Youth Sport: Coach, Parent, and Peer Influences on Motivation in Specializing Sport Participants

Motivation in sport is the key determinant behind every action taken and every effort exerted (or not) (Deci & Ryan, 2000). Understanding the dynamics of motivated behavior in sport is arguably vital. Although important aspects of individuals' motivations are determined by their own beliefs, cognitions, and values, significant influences can also be exerted by key social agents (Deci & Ryan, 2000). It is these social influences that form the focus of this study. Over the last 25 years, a considerable volume of research has been generated attempting to conceptualize and measure these influences, particularly from coaches (for a review see Harwood, Spray, & Keegan, 2008). In the current study, a broader focus was adopted, examining the wide array of potential motivational influences originating from coaches, parents, and peers. The term *motivational atmosphere* was chosen to reflect this broader, more detailed description.

### *Athletic Career Progression*

Both Côté, Baker, and Abernethy (2003) and Wylleman, Alfermann, and Lavalée (2004) proposed models of athletic career progression. In each case, the early career is characterized 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. This period is termed the *initiation/sampling* stage (Côté et al., 2003; Wylleman et al., 2004). Following this period, athletes tend to focus on one or two sports in which they specialize, learning the key skills, tactics, and rules. This *specializing* phase tends to occur from around the age of 11-12 years. 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.) 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.). The specializing career stage is difficult to delineate with any precision, because it is

1 characterized by change. These changes include: a) decreasing number of sports/activities b) a decrease  
2 in deliberate play, being replaced with deliberate practice, and c) gradual changes in the roles of  
3 coaches (from 'helper' to 'specialist'), parents (from direct' to 'indirect' involvement), and peers (from  
4 stimulation/co-participation towards the fulfillment of emotional needs - Côté et al., 2003). In contrast,  
5 the investment/mastery stage is defined by a heavy and exclusive focus on deliberate practice, specialist  
6 coaching in a single sport, and markedly decreased parental involvement (Côté et al., 2003). This paper  
7 addresses the specializing stage of development.

### 8 *Motivational Climate Research*

9       Within achievement goal theory (AGT; Nicholls, 1989), sport participants' immediate goals for  
10 achievement are determined by the interaction of their *goal orientation* (a proneness in individuals  
11 towards adopting certain goals) with the *situational goal climate* (the specific situational and contextual  
12 circumstances in which the achievement task is defined; Ames, 1992). The dichotomous AGT approach  
13 proposed by Nicholls defines these goals in one of two ways: *performance/ego* goals emphasize  
14 normative evaluations and outperforming others, and *mastery/task* goals emphasize effort, personal  
15 improvement, and task mastery. The presence of task goals has almost invariably been associated with  
16 positive motivational outcomes, whereas the presence of ego goals is hypothesized to produce an array  
17 of less desirable outcomes, especially when perceived competence is low, or where not accompanied  
18 by task goals. Nevertheless, results regarding the adoption of performance/ego goals have been  
19 somewhat inconsistent (for reviews, see Elliot, 1999; Harwood et al., 2008).

20       Theoretical and empirical research has led to the development of the TARGET acronym,  
21 outlining the ways in which teachers and coaches can emphasize achievement goals: task, authority,  
22 recognition, grouping, evaluation, and timing (Ames, 1992). A task-climate would include  
23 collaborative tasks, democratic leadership, recognition for effort/improvement, mixed ability  
24 groupings, private and individual evaluation, and sufficient time for everyone to learn. An ego-climate  
25 would include competitive tasks, autocratic leadership, recognition of normative ability, segregation by

1 ability, normative and public evaluation, and time for only the more advanced students to complete a  
2 task. In most coaching environments, however, the above behaviors are likely to occur interchangeably  
3 depending on the circumstances. Extensive questionnaire-based research has revealed that a perceived  
4 mastery climate correlates with positive outcomes, whereas perceptions of a performance climate either  
5 show no such relationships, or correlate with negative outcomes (e.g. anxiety and tension, reduced  
6 enjoyment; see Harwood et al., 2008 for a review). Given such a compelling body of research,  
7 relatively consistent findings and such a parsimonious theoretical model, it may not be surprising that  
8 AGT has dominated research for over 20 years. Nevertheless, can something as complex as the ever-  
9 changing social milieu in which developing players participate be comprehensively represented by  
10 such a parsimonious model?

### 11 *Stepping Beyond Motivational Climate*

12         Within self-determination theory (SDT; Deci & Ryan, 2000), competence, autonomy, and  
13 relatedness are conceptualized to be core psychological needs. SDT denotes that the degree to which  
14 any context, situation or relationship supports these needs would directly predict an athlete's level of  
15 motivation. Although AGT chiefly concerns the pursuit of competence (Roberts, 2001), Stuntz and  
16 Weiss (2002) argued that sport is often highly public and therefore inherently linked with social  
17 considerations, so that athletes' perceptions of physical competence may well be intertwined with  
18 certain socially-oriented motives. Allen (2003) proposed a theory of social motivation in sport that  
19 focuses upon an athlete's desire for social competence in achievement settings, defined in terms of the  
20 forming of friendships, gaining social status and recognition, and the perception of belonging to a  
21 group (see also Ullrich-French & Smith, 2006). Urdan and Maehr (1995) called for the reconsideration  
22 of social goal orientations (after their initial inclusion in AGT) in describing and explaining  
23 achievement behavior. Historically, social goals may include social welfare goals (i.e., to benefit the  
24 larger society), social responsibility (i.e., to be conscientious), social affiliation (i.e., to feel a sense of  
25 belonging), and social status goals (Urdan & Maehr, 1995; Wentzel, 1993).

1           The story becomes more complex when it comes to the joint consideration of these various  
2 theories. AGT is sometimes taken to overarch all of the above theoretical standpoints such that in  
3 Vazou, Ntoumanis, and Duda's (2005) study, themes consistent with relatedness and autonomy  
4 considerations (from SDT) were deductively subsumed into the conceptualization of a task-involving  
5 climate. This assumption arguably overlooked the possibility that these themes might be related to both  
6 task- and ego-involving climates. The difference between achievement goals and social goals is also an  
7 area of tension, with some theorists preferring to subsume social goals into the ego-goal conception  
8 (Roberts, 2001), whereas Urda and Maehr (1995) argued that the separate consideration of social  
9 goals significantly increases understanding and predictive power. Elliot (1999), however, proposed that  
10 AGT should be limited to an exclusive focus on competence, excluding any consideration of self  
11 presentational or social status concerns. Despite this dissonance, there is also some convergence. All of  
12 these theories of motivational regulation have been linked with differences in levels of self-reported  
13 intrinsic/extrinsic motivation (Barkoukis, Thøgersen-Ntoumani, Ntoumanis, & Nikitaras, 2007;  
14 Kavussanu & Roberts, 1996; Smith, Ullrich-French, Walker, & Hurley, 2006) and, despite the  
15 dominance of AGT in investigating the motivational climate, research adopting other theories has  
16 frequently and fruitfully addressed interpersonal and social considerations, such as relationships  
17 (Mageau & Vallerand, 2003; Ullrich-French & Smith, 2006), autonomy support (Conroy &  
18 Coatsworth, 2007; Gurland & Grolnick, 2005; Pelletier, Fortier, Vallerand, & Briere, 2002), peer-  
19 friendships and group considerations (Allen, 2003; Weiss, Smith, & Theeboom, 1996), and the  
20 emphasis of approach-or-avoidance motivation by significant others (Barkousis et al., 2007; Church,  
21 Elliot, & Gable, 2001; Elliot, 1999).

22           The above points reinforce the need to investigate the motivational atmosphere without an *a-*  
23 *priori* commitment to using one-or-another model of motivation to guide analysis and/or interpretation.  
24 All the theories described here, as well as their various derivations/combinations, are arguably relevant  
25 to the study of social and environmental motivational processes. The critical-realist approach adopted

1 in this study denotes that none of these competing theories should be given any preference, especially  
2 prior to engagement with the subject matter: a kind of ‘theoretical agnosticism’ advocated by Henwood  
3 and Pidgeon (2003). This absence of a guiding theory is best understood as an *open mind* rather than an  
4 *empty head* (see also Sandelowski, 1993).

#### 5 *Deconstructing Motivational Climate*

6 As already noted, recent studies have started to examine the social and environmental influences  
7 on motivation without exclusively focusing on the AGT conception of motivational climate. These  
8 studies suggest researchers should incorporate a multifaceted approach to progress our understanding,  
9 even calling for a ‘deconstruction’ of what constitutes the motivational climate (Amorose, 2007; Smith,  
10 Smoll, & Cumming, 2007). This shift has occurred in recognition of the idea that the specific behaviors  
11 of coaches, parents, and peers each influence athletes’ motivation, and that these behaviors may have  
12 different influences between contexts, situations, and developmental levels. Keegan, Harwood, Spray,  
13 and Lavallee (2009) identified specific aspects of coach, parent, and peer behavior that sampling  
14 (initiation) athletes reported to be motivationally-relevant. Their data suggested that first, young  
15 participants were quite aware of how these social agents affected their motivation, and second, there  
16 was a vast array of behaviors and interactions that were reported to be motivationally-relevant.  
17 Prominent in their findings was the idea that the influences of social agents were related to the specific  
18 roles they fulfill (teaching, supporting, co-operating). The analysis indicated that the way coaches  
19 influence motivation related most strongly to the manner in which they perform their roles of  
20 instruction and assessment, whereas parents’ influences were most salient in terms of the way they  
21 supported participation and learning. Parents and coaches were reported to be influential in terms of  
22 their leadership styles, affective responses, and pre-performance behaviors. Where coaches and parents  
23 performed different roles (e.g., coaches teaching, parents supporting), their sources of influence differed  
24 too. Peers were perceived to influence motivation via competitive behaviors, collaborative behaviors,  
25 evaluative communication, and through social relationships (Keegan et al., 2009). With specific regard

1 to specializing athletes, Vazou et al. (2005) identified a wide array of peer interactions that could be  
2 viewed as motivationally relevant. When the findings of Vazou et al. are considered alongside other  
3 similar studies (e.g., Beltman & Volet, 2007; Garcia-Bengochea & Streaan, 2007; Weiss et al., 1996),  
4 an initial overview emerges of ways that peers reportedly influence each other's motivation, including:  
5 emphasizing effort, emphasizing competition, collaboration, evaluative comments, conflict (and its  
6 resolution/absence), emotional/moral support, and friendships/group-membership. Likewise, recent  
7 studies have examined the roles of parents in more detail, identifying such behaviors as additional  
8 coaching/instruction, feedback, emotional responses, autonomy support, controlling behaviors,  
9 maintaining focus, and social support (Gould, Lauer, Rolo, Jannes, & Pennisi, 2008; Holt, Black,  
10 Tamminen, Mandigo, & Fox, 2008; Holt, Tamminen, Black, Mandigo, & Fox, 2009), as well as the  
11 'conditionality' of support ( i.e., whether parents emphasize a return for their investment or assure the  
12 athletes that their support is unconditional; Assor, Roth, & Deci, 2004; Gould et al., 2008). These  
13 exploratory studies would appear to facilitate the dismantling of the socio-environmental influences on  
14 motivation, which was called for by Amorose (2007) and Smith et al. (2007). What is missing from this  
15 research is a comprehensive and integrated description of the behaviors/interactions that athletes  
16 perceive to influence their motivation. Given the pivotal importance of the specializing career stage in  
17 both producing elite athletes and maintaining active and healthy lifestyles, this study set out to identify  
18 those behaviors of coaches, parents, and peers that specializing athletes perceive to be motivationally  
19 relevant.

## 20 Method

### 21 *Participants*

22 Following ethical clearance from a British university, 12 focus group interviews were conducted  
23 containing 79 sport participants (36 females and 43 males), recruited from 26 sports with an age range  
24 from 9.0 years up to 18.16 years ( $M = 12.93$ ,  $SD = 1.82$ ). Seventy-seven of the participants were White  
25 European, one was of Asian, and one was of African descent. The participants were recruited from two



1 local schools and one premiership soccer academy. In each case, the head teacher, director, or instructor  
2 was contacted by letter explaining the study and requesting permission to interview participants. In the  
3 case of the secondary schools, students were requested to take part if they played sport in their spare  
4 time, outside of school PE. Participants under the age of 18 ( $n = 78$ ) took a parental consent form home  
5 and, if consent was granted, they were taken out of class/practice and interviewed nearby. Sport  
6 experience ranged from those with 2-3 years experience up to and including 5-6 years experience.  
7 Forty-two participants were competing in a single sport, 22 competed in two, and 15 reported  
8 competing in three or more sports.

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

## 22 *Procedure*

23       A focus-group approach was chosen to maximize the experience within each group and also to  
24 meet child-protection and ethical considerations. Focus groups are proposed to be highly appropriate in  
25 situations where the research is aiming to generate new ideas, language, and applications, and they can

1 also help to embolden participants to offer their opinions (Greenbaum, 1998). All interviews took place  
2 at the school or training site and lasted 45-65 minutes. Participants took part under their own volition  
3 with no incentive offered by the interviewer. All interviews were conducted by the first author. A semi-  
4 structured interview guide (taken from Keegan et al., 2009) was deployed although questions changed  
5 as themes developed between interviews. The interview guide was piloted several months previously  
6 and given to secondary school teachers who checked that it was developmentally appropriate. These  
7 processes highlighted the importance of flexibility in asking, explaining, and following-up the  
8 questions to ensure all group members felt able to contribute. After a brief introduction and ice-  
9 breaking exercise, the main questions were intended to assess the influences (positive and negative) of  
10 coaches, parents, and peers on motivated behaviors; including effort, persistence, task choice, focus,  
11 and enjoyment (cf. Roberts, 2001). Sample questions included: “What things can your  
12 [coach/parents/team-mates] do, or say that influence how much you [want to play sport / want to try  
13 hard in your sport / enjoy your sport / focus on learning new skills / help you to keep trying, even when  
14 you’re struggling]?” The interview finished with some summary questions such as: “If you could write  
15 a wish-list saying: ‘To make me [come back every week / try my hardest all the time / really enjoy my  
16 sport] this is how you should be’: What sort of things would go on that list?” and “What things should  
17 definitely be off that list?” The interview proceeded differently every time in response to the  
18 discussions and debates between participants. Participants were always encouraged to seek clarification  
19 if they were unsure. The sections relating to coaches, parents, and peers were asked in a  
20 counterbalanced order between interviews to alleviate any effects of fatigue or boredom. Additionally,  
21 when addressing the influence of coaches, participants were instructed to focus on their coaches from  
22 organized sport and not their school teachers.

23 Participants were allowed to respond freely and debates were encouraged when participants had  
24 different perspectives. If questions intended for later in the interview were discussed this variation was  
25 also permitted. Probes were included to explore or focus on themes and questions-of-interest that arose

1 during or between interviews. Thus, while the interview was structured, there was flexibility in how  
2 questions were asked and followed up, allowing a greater depth of exploration and improved rapport.

### 3 *Data Analysis*

4 The process of data analysis started after the first interview was completed, with the interviewer  
5 reflecting on the responses given and sharing these reflections with the co-investigators, often arriving  
6 at new themes to explore. As a result of this process, the data gathered became increasingly focused  
7 around emerging themes and questions. The same eight-step procedure adopted by Keegan et al. (2009)  
8 was implemented to prepare and analyze the data: 1) transcribe interviews verbatim (yielding 358  
9 pages of single spaced text), 2) read and re-read transcripts for familiarization (also listening to tapes),  
10 3) divide quotes into those concerning coaches, parents, and peers, 4) perform a thorough inductive  
11 content analysis, moving recursively between creating tags (“open coding”), creating categories  
12 (“focused coding”), and organizing categories, using constant comparison and critical reflection to  
13 guide analysis (cf. Côté, Salmela, Baria, & Russell, 1993) within each domain using QSR N-Vivo  
14 version 7 qualitative analysis software (QSR, 2006), 5) inter-rater checking of the coding in a sample of  
15 manuscripts (>80% agreement; cf. LeCompte & Goetz, 1982), 6) member checking via both internal  
16 (checking understanding during focus groups and returning scripts to ensure statements had not been  
17 misrepresented) and external (recruiting a new group of specializing participants to assess/discuss the  
18 findings) processes; 7) an iterative consensus validation process was conducted with two members of  
19 the research team to question codings, categorizations, and the overall organization of the data, and 8) a  
20 peer debrief (cf. Lincoln & Guba, 1985) was conducted with the remaining researcher throughout the  
21 analysis as well as in review of the final analysis. Within the analysis process, all identified codes  
22 represented the interpreted meanings of the athletes’ responses. The processes of private reflection,  
23 consensus validation, and peer review were used to ensure that: a) code and category labels were  
24 represented in the data and not 'forced' upon it (cf. Charmaz, 2006), and b) the theoretical agnosticism,  
25 described in the introduction, was retained because each quote/theme/category was compared in

1 relation to both other data (i.e., constant comparison; Lincoln & Guba, 1985) and all of the potential  
2 theoretical standpoints. Existing conceptions were forced to “earn” their way into the analysis rather  
3 than “guiding” it (cf. Charmaz, 2006, p.68).

4 The iterative and recursive coding of properties, interactions, and contexts/situations (processes)  
5 was carried out until no new information about a category emerged. The analysis focused on  
6 motivationally-relevant sources and forms of perceived influence. The most salient outcome of the  
7 analysis was the perception that “the motivational atmosphere is complicated”. This perception led to  
8 an analysis prioritizing breadth over depth in an attempt to identify as many contributing variables as  
9 possible. Space considerations prevent the full presentation of quotes and illustrations, but in an attempt  
10 to demonstrate the transparency and authenticity of the research, numerous quotes are presented and  
11 explicit links are made between the interpretive account and the findings of other related studies (cf.  
12 Pawson & Tilley, 1997).

### 13 Results and Preliminary Discussion

14 With a view to highlighting the potential integration of coach, parent, and peer influences, Figures  
15 1 and 2 were constructed to highlight higher-order themes that showed strong correspondence between  
16 social agents. The results list congruent themes that related to all three social agents, then themes that  
17 showed similarities among any two social agents, and finally, the themes that appeared unique to one  
18 social agent. Where quotations are provided within the text, the participant’s reference is given in the  
19 form [GENDER-AGE-SPORTS]. To provide a full and complete representation of the findings, while  
20 simultaneously attempting to offer sufficient explanation, all categories and themes that emerged from  
21 the analysis are presented in the figures, and (where appropriate) discussed in relation to existing  
22 research. These findings do not represent an attempt to generate a new theory, but rather they provide  
23 the fullest possible account of the motivationally-relevant indices in the ‘motivational atmosphere’,  
24 such that subsequent theorizing may (eventually) be facilitated.

#### 25 *Coach, Parent, and Peer Commonalities*

1           The concept of feedback or evaluative communication emerged separately in all three dimensions  
 2 of the analysis (see Figure 1). Overall, both coaches and parents were reported to influence the  
 3 motivation of athletes through either verbal feedback or behavioral reinforcement. Verbal feedback  
 4 could vary in terms of its valence (praise-criticism) and its constructiveness. Positive feedback was  
 5 generally viewed as producing more adaptive forms of motivation, whereas negative feedback was  
 6 more likely to undermine motivation, produce frustration, or even undermine the athlete's relationship  
 7 with the feedback provider. “If you're really upset that you've done badly, and you really want to  
 8 improve on it, and they just like point it out and make it even worse like, by shouting at you... when  
 9 you know already” [M-13-SOCCER]. In contrast, however, negative feedback was also reported as  
 10 producing an *I'll show him* response, for example: “It's not very nice when they criticize you but that  
 11 makes you like [think] ‘I'm gonna show them that I can actually do that... I'll be better’” [M10-SOCCER  
 12 ACADEMY].

13           A cluster of ideas was identified relating to Dweck's (1999) model with ability being conceived  
 14 as fixed (entity) or malleable (incremental). Constructive feedback was seen in positive terms, linking  
 15 with an incremental conception of ability, whereas summative feedback was linked with feelings of  
 16 frustration and undermined motivation, invoking as it did, an entity conception of ability:

17           [Mum]'s like 'no you weren't good enough'... But then I feel like 'well I've tried my hardest,  
 18 and I can't do any better than that'. But then if my dad was there he'd be like 'you did really  
 19 well in them matches,' like 'concentrate on getting your skills right'. It would make me feel a  
 20 lot better that he was like trying to help me, rather than just telling me what I'm doing wrong.

21           [F-12-HOCKEY]

22           Coaches and parents were also reported to influence motivation by using behavioral  
 23 reinforcement (rewards and punishments) in response to performances, outcomes, and effort/attitude.  
 24 For example: “If he like failed they just grounded him and stuff like that.... Like once he just missed out  
 25 on getting selected but his mum and dad just went mental” [M-12-HOCKEY/LACROSSE]. In contrast, parents

1 were also reported to offer 'unconditional praise', which was seen as a positive influence on motivation  
 2 and the parent-child relationship, for example: "Even when it's obvious that you're not gonna win they  
 3 say 'Do your best, carry on. Don't give up!'" and then afterwards they're like 'Well done! You played  
 4 really well', so you feel like you haven't done so bad" [F-11-SWIM/NETBALL/SKI].

5 The nature of feedback and evaluative communication in the peer dimension did seem  
 6 qualitatively different to the coaching and parent dimensions, because it included themes ranging from  
 7 genuine feedback to momentary displays of frustration or joy. There were two emergent categories:  
 8 'immediate reactions to mistakes' could be subdivided into 'anger and criticism' and 'encouragement  
 9 after mistakes' (e.g., "If I duffed a shot or something, someone would just say 'Hard luck, still try and  
 10 do it next time but do it better' Instead of just saying 'Oh that was rubbish'" [M-13-SOCCER]. The second  
 11 emergent category was labeled 'verbal commentary' and was further subdivided into 'praise and  
 12 positive feedback', and 'criticism and negative feedback'. This verbal feedback was evident in both  
 13 Vazou et al.'s (2005) and Beltman and Volet's (2007) studies, and although it may differ qualitatively  
 14 from the feedback offered by coaches and parents (less formal and authoritative - hence the label  
 15 'commentary'), it did involve the verbal expression of evaluative information.

#### 16 *Coach and Parent Commonalities*

17 *Leadership style.* Both coaches and parents shared themes of 'controlling style', 'autonomy  
 18 supportive style', 'expertise', and 'relationship aspects'. Elements of these findings replicate those of  
 19 Conroy and Coatsworth (2007 – regarding coaches) and Holt et al. (2008; 2009 – regarding parents),  
 20 while other findings offer new possible themes. Regarding both coaches and parents, autonomy support  
 21 was generally reported as having a positive influence on motivation, whereas a controlling style was  
 22 often reported in relation to feelings of frustration, anger, undermined motivation, and even damaging  
 23 relationships. An autonomy supportive style included showing an interest, listening wherever possible  
 24 (e.g., "They listen. Like if you've had a bad game, or you want to moan, they actually listen to you and  
 25 don't just go 'whatever'" [M-13-SOCCER]), supporting the child's desires and allowing the athlete to

1 participate in decisions (e.g., “If you’ve got a party, don’t say ‘Oh you’re not going to the party cos  
 2 you’ve got training tonight’. Give them a choice” [F-15-SWIMMING]); whereas controlling style included  
 3 making autocratic decisions, asserting control with threats/pushing (e.g., “His dad had kept pushing  
 4 him and pushing him and he got like too hard on him and eventually he dropped out ‘cos he was just  
 5 fed up of it” [M-13-RUGBY]), and parents trying to influence selection decisions on behalf of their child  
 6 (e.g., “Parents asking the manager for them to play, and saying ‘Why aren’t my kids in the team?’” [M-  
 7 15-RUGBY/SOCCER/ROWING]).

8 Elements of social motivation were apparent in the theme ‘relationship with athletes’ (coaches  
 9 and parents). The importance of the athlete-coach and athlete-parent relationships was highlighted by  
 10 many participants and is illustrated by quotes such as “When my father’s there... he’s the most  
 11 important person in my life as far as I’m concerned, and when he’s there I always play better, I’m  
 12 always so happy when he’s there” [M17-RUGBY], and “If you’re like inspired by your coach, you want to  
 13 do it even more; like do it *for* them... But if you’ve got a horrible coach, you like just don’t feel like  
 14 [doing] what they’re saying. [M-12-SOCCER/CRICKET]. In addition, the expertise of both coaches and parents  
 15 seemed to play a role in the motivation of the athlete. This observation may be important because the  
 16 specializing career stage is partially characterized by a shift towards specialist coaching (Côté et al.,  
 17 2003). With specific regard to the parents, ‘different parenting styles’ suggested that parents may have  
 18 different effects on motivation, depending on their relationship with the child, experience of the sport,  
 19 or affective style (see also Holt *et al.*, 2008).

20 *Emotional and affective responses.* These responses were separated from such themes as  
 21 ‘feedback and evaluation’ because they did not always have an evaluative component, but reflected the  
 22 tendency of the coach/parent to be moody or easily angered. The emergent categories within this  
 23 dimension included: a) propensity for anger (e.g., [regarding coach] “You know you’ve got to perform  
 24 well otherwise they’re gonna like, not be very happy” [M-12-BADMINTON]), b) positive affect (e.g.,  
 25 [regarding coach] “It makes the situation more positive so you feel you can play your best... So it is

1 how the coach really puts it, the body language they use as well” [F-14-HOCKEY/SOCCER]), and c) ‘tolerance’  
 2 – which was reflected by acceptance, or the absence of a negative reaction, regarding mistakes and  
 3 defeats (e.g., “Well my dad, he would never shout, he would just say ‘you need to improve...you didn’t  
 4 do this as well today’, he would never shout” [M-10-SOCCER-ACADEMY]). The emotional responses of  
 5 coaches and parents (real and anticipated) appeared to be a key factor in influencing the participants’  
 6 motivation. Participants appeared to pursue positive emotional responses, appreciate tolerance, and try  
 7 to avoid producing negative responses, such as anger or sadness. The observed and anticipated  
 8 emotional responses effectively created an emotional climate around sporting involvement, separate  
 9 from (but inherently related to) ideas of evaluation, approval, and supportiveness. Studies by Conroy  
 10 and Coatsworth (2007), Holt et al. (2009) and Gould et al. (2008) also alluded to these factors.

11 *Pre-performance motivating behaviors.* This theme represented the behaviors undertaken in the  
 12 period immediately before competitive performance with the specific intention of motivating the  
 13 participants. Both parents and coaches were cited as being able to promote effort/mastery (e.g.,  
 14 [regarding coach] “Before the match they tell you exactly what they want you to do... ..they tell you  
 15 exactly what you need to do to be better in that position” [M-13-SWIM/SOCCER]), pressure/avoidance  
 16 motivation (e.g., [regarding coach] “They’ll say that if you’re not doing your best they’ll bring you off  
 17 and replace you... ..But sometimes it doesn’t work. It puts extra weight on your shoulders.” [M-15-  
 18 RUGBY/SOCCER/ROWING]), and confidence/approach motivation. Coaches (but not parents) were cited as  
 19 being able to promote competitiveness and intra-team rivalry, as well as passion and energy (e.g., “Say  
 20 when you’ve got an important match and your coach is like revved up as well then it makes you like  
 21 wanna try” [M-13-SOCCER/CRICKET]). Certain elements of this theme have been noted in other recent papers  
 22 (see Figure 1), but overall it may represent a potentially fruitful area for future investigation.

### 23 *Coach-specific Themes*

24 *Instruction and pedagogic considerations.* This theme referred to the way the coach goes about  
 25 the regular duties of coaching, such as teaching, planning and implementing drills, and making



1 selections (see Figure 2). ‘Equal treatment and perceived fairness’ was further subdivided into ‘equal  
 2 opportunities in selection’ (i.e., allowing genuine competition for places), ‘equality in feedback’ (i.e.,  
 3 giving equal time to all players and also being equally positive/negative with all players), ‘perceived  
 4 unfairness in selection’ (i.e., always picking favorite players regardless of attendance at training or  
 5 recent form) and ‘differential treatment’ (i.e., spending more time or being more friendly with favorite  
 6 players, asking a team to always pass the ball to one player). ‘One-to-one coaching’ related to the time  
 7 spent by coaches giving instruction, attention, evaluation, and feedback individually. This coaching  
 8 behavior was construed as having a very positive influence on motivation.

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

19 ‘Selection’ was subdivided into: a) ‘competition for places’, b) ‘consistent team selection’, c)  
 20 ‘selecting on form’ (e.g., “Twice in a row I’ve not been chosen - because like the training before I’ve  
 21 not been playing my best” [M-12-HOCKEY/SOCCER]), d) ‘squad rotation’ and e) ‘nobody is secure’ (e.g.,  
 22 “When they get like a triallist in, you’re thinking: ‘Is he better than me in my position, am I going to get  
 23 dropped or something?’” [M-11-SOCCER-ACADEMY]). The theme of modeling-demonstration was discussed  
 24 sufficiently to warrant mention, because it seemed that facilitating improvement/learning in this way  
 25 was construed as motivational by some of the athletes: “They actually show you what you have to

1 do, you see them doing it, and they tell you how you can do it... so it helps you. [F-11-

2 NETBALL/ARCHERY/SWIM].

3 'Evaluation criteria' emerged as a theme relating to how athletes felt they were evaluated by their  
 4 coach. Athletes seemed able to infer how they were being evaluated without necessarily receiving  
 5 feedback, and this awareness was also reported to influence motivation. Coaches who generally  
 6 emphasized effort, improvement, and good skills were inferred to evaluate using these criteria. For  
 7 example: "Well, when you lose a match you might play really good football [soccer] and they won't  
 8 criticize you at all if you were the better side" [M-10-SOCCER-ACADEMY] and "Say if I, our team played really  
 9 bad but we won, he would be more bothered that we played bad" [M-9-SOCCER-ACADEMY]. Likewise, it was  
 10 possible for coaches to evaluate normatively, for example "Sometimes they even tell you like who the  
 11 best players are, and then the best players are happy, and everyone else wants to catch up to them and  
 12 do better than them" [M-13-SOCCER]. Participants also reported being aware of when the coach was 'fault-  
 13 finding/scrutinizing' – looking for problems and weaknesses:

14 He was always watching me and he knows everything I do wrong... I'm with him so  
 15 many times a week, so he knows all my little things and he looks at them to try and  
 16 make them right... it always makes me cry cos like the pressure's on me [because] he  
 17 knows I'm gonna do something wrong and he picks up on it and writes it down [F-14-

18 FENC/ARCH/TAE-KWON]

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

## 22 *Parent-specific Themes*

23 *Parent support and facilitation.* This theme referred to the supportive role carried out by parents  
 24 in transporting their children to training and competitions, purchasing equipment, and offering moral  
 25 support from the sidelines. The theme contained three subcategories. First, 'material and emotional

1 support' (e.g., "She drove me there like every weekend, just for these trials, and I felt like quite proud,  
 2 because I had a mum who cared about what I did" [F-12-HOCKEY]), which replicated findings by Garcia-  
 3 Bengoechea and Streaan (2007) and Beltman and Volet (2007). Second, 'unconditional support' (e.g.,  
 4 "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  
 5 she does it because it makes me happy" [M-17-RUGBY]), which was consistent with findings from Assor et  
 6 al., (2004), Gould et al., (2008), and Pummell, Harwood, and Lavallee (2008). Third, the mere act of  
 7 watching-spectating was identified as motivationally-relevant (e.g., "Some kids, their parents can't take  
 8 them cos they don't have the time, so they have to go with other people's parents and it doesn't really  
 9 feel like they're supporting you" [F-14-FENC/ARCH/TAE-KWON]).

10 *Parent play-and-teach behaviors.* This higher order theme described the activities and behaviors  
 11 undertaken by parents aimed at developing or improving the athlete's competence. There were three  
 12 emergent categories within this theme. 'Over-involved behaviors' was further subdivided into 'taking the  
 13 game home', 'accepting reflected glory', and 'embarrassing behavior during competition' and replicated  
 14 findings by Gould et al. (2008). For example: "It's alright if they're there and being supportive, but if  
 15 they're like shouting at you what to do or like being really over the top, then it gets really wrong" [F-13-  
 16 TENNIS/SOCCER]. 'Instructional behaviors' were further subdivided into 'conflicting advice to the coach',  
 17 'reinforcing coach's advice', and 'overloading with advice', in a manner synonymous with Gould et al.  
 18 (2008), Holt et al. (2009) and Reeves et al. (2009). 'Facilitating practice' was further subdivided into  
 19 'garden play' and 'encouraging practice' – where 'garden play' was analogized with accompanying the  
 20 athlete during free or deliberate play. This category showed similarities with Garcia-Bengoechea and  
 21 Streaan (2007), Babkes and Weiss (1999), and Pummell et al. (2008).

## 22 *Peer-specific Themes*

23 *Peer relationships and social interactions.* The theme referred not only to the quality of  
 24 relationships, but also seemed to suggest that relationships amongst peers can be used as a commodity  
 25 to either endorse or discourage certain achievement motivations (i.e., the nature and dynamics of these

1 relationships and the processes of their formation were commonly referred to as a mechanism by which  
 2 affect, cognitions, and goal adoptions could be influenced). There were three emergent categories:  
 3 ‘Linking competence to social outcomes’ (e.g., “Like if you get on well with them and you like do a  
 4 really poor performance they like, don’t wanna be your friend any more” [M-13-ROWING/CRICKET], which  
 5 was also identified by Allen (2003) and Vazou et al. (2005); ‘Friendship and affiliation’ (e.g., “Good  
 6 relationships... Like respect each other and like stick up for each other... make sure you all get on, cos  
 7 if you don’t, like, it’s not gonna go well.” [M-15-SOCCER-ACADEMY]), which was also identified by Weiss et  
 8 al. (1996) and Vazou et al. (2005); and ‘Group identity and perceived belonging’: “It just makes you  
 9 want to keep doing that, for them, for the rest of the team.... ...you’ve got another ten people on the  
 10 pitch with you and you want to keep doing it for them” [M-13-SOCCER/CRICKET]. This theme was also  
 11 compatible with those reported in Weiss et al. (1996) and Vazou et al. (2005). Peer relationships and  
 12 social interactions appeared to be the driving force behind many of the themes observed and  
 13 consequences reported. For example, the giving and receiving of feedback, the decision concerning  
 14 whether to help a peer improve (or not), or to be competitive (or not), all seemed to be considered in  
 15 relation to social outcomes (e.g., status, belonging, affiliation). This interdependence was only partially  
 16 reflected in themes such as ‘linking competence with social outcomes’, but the distinctions between  
 17 discriminatory-versus-inclusive playing style, and conflictive-versus-positive rivalries also implicate  
 18 social consequences for competence/achievement-based behaviors. Although such a finding is not  
 19 unique (Skinner & Piek, 2001), it appears to be important and worthy of further investigation.

20 *Competition amongst peers.* This theme referred to any and all behaviors relating to competition  
 21 and normative comparisons and contained many concepts that appear to replicate the findings of Weiss  
 22 et al. (1996) and Vazou et al. (2005). Although several of the emergent categories could be linked to  
 23 conflict and negative outcomes, there were themes suggesting positive outcomes, and also suggesting  
 24 how normative comparisons can be emphasized by a peer group. This higher order theme contained six  
 25 emergent categories: a) ‘boasting’ (e.g., “If somebody in the team is showing off and stuff, saying ‘I’m

1 the best, I'm better than you... ' then you like want to be better than them, you want to beat them [F-13-  
 2 RUNNING/EQUEST]), b) 'pressurizing behaviors' (e.g., "If you've got a penalty, and you're the person taking  
 3 it, and they're putting loads of pressure on you, saying 'oh you've got to get it in', it makes you feel like,  
 4 'What if I get it wrong?'" [F-13-TENNIS/SOCCER]), c) 'leading by example' (e.g., "I think they help you by  
 5 being better than you. Because that's showing you that if they can do that then you can do that as  
 6 well... it makes you think 'I'm going to do that too'." [F-11-NETBALL/ARCHERY/SWIM]), d) 'rivalry and  
 7 conflict', e) 'positive rivalry' (e.g., "You try and be better than them, and they try and be better than  
 8 you, and then it makes you be better players because you're always like under pressure, but that's  
 9 good" [M-12-SOCCER/CRICK/RUGBY]), and f) 'discriminatory decisions and behaviors' – which involve  
 10 actions such as refusing to pass the ball to an individual.

11 *Peer collaboration and altruistic behaviors.* This theme referred to all behaviors involving  
 12 peers working together or to help each other. As above, the theme 'peer collaboration and altruistic  
 13 behaviors' contained many similarities with the findings of Weiss et al. (1996), Vazou et al. (2005) and  
 14 Garcia-Bengochea, and Streaan (2007). The emergent category 'emotional and moral support' referred  
 15 to behaviors where peers sought to support each other without necessarily having the aim of improving  
 16 performance. Examples would include consoling, cheering, distracting someone from nerves, and  
 17 making pacts to remain friends regardless of who wins. The emergent category 'emphasizing effort'  
 18 referred to behaviors wherein peers de-emphasized results and even performance failures and, instead,  
 19 encouraged effort and participation. Examples could include such statements as "never mind keep  
 20 trying" or remaining patient while a peer attempts to master a skill. The theme 'collaborative learning'  
 21 referred to attempts by peers to teach each other or practice together. Within this theme, four  
 22 subcategories emerged: a) 'offering help and advice' (e.g., "If you're struggling with a routine or  
 23 something they will stay and help you, so it's like looking out for each other" [F-12-SOCCER]), b)  
 24 'withholding help and advice' (negative case) (e.g., "Like if you ask them for help and they just ignore  
 25 you" [M-13-RUGBY]). c) 'extra practice in spare time' (e.g., "We go down to the park, like after and just

1 have a kick around”<sub>[M-13-SWIM/SOCCER]</sub>), and d) ‘collaborative playing style’ (e.g., “At our county trials...  
 2 this girl I knew that I was playing on the same team with, we thought like 'oh we'll play together and  
 3 get through'... ..like she would always pass to me.”<sub>[F15-NETBALL/EQUEST]</sub>).

#### 4 General Discussion

5 This study set out to produce a detailed and integrated description of the motivationally-relevant  
 6 behaviors of coaches, parents, and peers when supporting specializing sport performers. The focus  
 7 groups offered pertinent and rich data facilitating a comprehensive understanding of the specific  
 8 behaviors that social agents may display in influencing the motivation of specializing athletes. As  
 9 discussed already, there are encouraging similarities with existing research (which largely uses the  
 10 athletes from the specializing career stage), as well as potential avenues for new research and  
 11 theoretical discussion throughout the findings. The coaching findings replicate and extend the  
 12 TARGET framework of Ames (1992), as well as sharing commonalities with other exploratory studies  
 13 of coach influences on athlete motivation (Conroy & Coatsworth, 2007; Garcia-Bengoechea & Streat,  
 14 2007; McCarthy & Jones, 2007; Reeves et al., 2009). The parent findings show good similarities with  
 15 both the coaching findings and also with existing research into parenting styles and influences (e.g.,  
 16 Gurland & Grolnick, 2005; Gould et al., 2008; Holt et al., 2008; 2009). The peer motivational climate  
 17 suggested many of the same considerations as Allen (2003), Vazou et al. (2005), and Weiss et al.  
 18 (1999). This observation of similar behaviors and situations in separate studies offers potential for  
 19 theoretical convergence.

20 In comparing the data from this study to Keegan et al. (2009), which used the same methodology  
 21 with athletes at the initiation/sampling career stage, a similar pattern of higher-order themes was  
 22 apparent. This similarity suggests consistencies between the motivational influences perceived by  
 23 initiators and specializers, which is arguably cogent for the following reasons: first, the objectives of  
 24 both stages are comparable (e.g., maintain interest, learn and improve, recreation 'with an eye for  
 25 potential'). Second, the roles performed by coaches and parents are common. Third, the relationship

1 between athletes and the parent/coach is also similar, insofar as coaches and parents remain in a  
2 position of authority, responsibility and high esteem during both stages. During the later  
3 investment/mastery stage, the emphasis may change to achievement and performance, athletes are  
4 likely to be more self-reliant (able to live alone, drive, provide for themselves) and self-aware, and the  
5 relationships may change to become more equal, which might lead one to expect more noticeable  
6 differences in the motivational atmosphere that these athletes would report. However, the specializing  
7 athletes in this study provided more detailed descriptions within similar themes/categories (perhaps due  
8 to increased eloquence and cognitive maturity in these older athletes), and also suggested a greater  
9 emphasis on skill acquisition, achievement, and competition, which would be consistent with advances  
10 in career-stage and an increasing focus on skill development (Côté et al., 2003). Nevertheless, this  
11 study does provide detailed and internally/externally consistent descriptions of the behaviors by which  
12 social agents can influence motivation (both immediately and over time); by encouraging continuity  
13 between play and work (cf. Côté et al., 2003). Overall, the findings from this study appear highly  
14 compatible with Côté et al.'s model and may offer additional insights for coaches and practitioners  
15 working with specializing athletes.

16 Like the Keegan et al. (2009) study, the roles performed by social agents, and the manner in  
17 which these roles are fulfilled, emerged as the most parsimonious way of organizing the analysis. For  
18 example, all three social agents produced a theme synonymous with 'feedback', and although the  
19 content of this theme was slightly different for peers, there were noticeable similarities between coach  
20 feedback and parent evaluative behavior. Parents and coaches showed the strongest similarities, with  
21 leadership style, evaluative behaviors/feedback, emotional and affective responses, and pre-  
22 performance motivating behaviors all emerging in both dimensions and showing good consistencies.  
23 These similarities are most likely indicative of an overlap in the types of roles performed by parents and  
24 coaches, in that they may exert similar motivational influences as a result of performing functionally  
25 analogous tasks and roles (e.g., support, facilitation, instruction, care-giving). Nevertheless, where

1 social agents perform unique roles, their influences are unique too; for example, the manner in which  
2 coaches perform the key roles of instruction, selection, and management (collaboratively, positively,  
3 tolerantly) can all influence athlete motivation. In contrast, the role of parents revolves heavily around  
4 support and facilitation, and the manner in which this support is provided (unconditionally, positively,  
5 collaboratively) also appeared key. The role of peers revolves around friendship, cooperation, and the  
6 reinforcement of rules/values amongst the peer group. Once again, the manner in which this role is  
7 fulfilled (narcissistically, altruistically, tolerantly) was central in determining athlete motivation. As the  
8 athletic career progresses, these roles are likely to change (Cote et al., 2003) and in order to plan  
9 successful interventions and build understanding, these changing roles and their integral links to  
10 motivational influences must be appraised.

11 In this paper and several others (e.g., Garcia-Bengoechea & Strean, 2007; Keegan et al., 2009),  
12 the emergent picture of social and environmental influences on motivation has not been a dichotomy  
13 between performance-versus-mastery definitions of competence, or approach-versus-avoidance  
14 motivational valences. Instead, a rich plethora of motivational influences has emerged, containing  
15 competence as well as social goals and autonomy goals, supported and endorsed (or undermined) by  
16 key social agents across a variety of contexts and situations.

17 Another key finding was that individual behaviors (and broader themes) from coaches, parents,  
18 and peers were rarely associated with a consistent motivational effect. For example, depending on the  
19 respondent, the source, and the context, criticism was associated with reduced motivation,  
20 anger/frustration, avoidance-based motivation, improvement/mastery (or increased effort), and  
21 thwarted autonomy. These findings suggest that the relationship between the behaviors of social agents  
22 and their influence on motivation was moderated by a number of contextual, interpersonal and  
23 intrapersonal factors (cf., Elliot, 1999). Thus, in a manner that replicates Keegan et al. (2009), there  
24 appeared to be a complex interactivity between motivationally-relevant behaviors and their effect on  
25 motivation. To be clear, as a rule it was almost impossible to establish any direct and exclusive



1 correspondence between the behavior of a coach, parent, or peer and the effect on athlete motivation.  
2 The influence of any single motivationally-relevant behavior seemed to be moderated by other factors,  
3 such as: a) the behaviors immediately preceding the event, b) co-occurring behaviors (e.g., “it’s not  
4 what you said, it’s the way (or moment, or place) you said it”), c) the consistency of the behavior in  
5 relation to the person concerned and in comparison to others, d) the relationship between the athlete  
6 and protagonist, and e) other contextual or environmental variables (e.g., training vs. competition or  
7 stage-of-season). This complex picture could be viewed as a first step towards deconstruction of the  
8 motivational climate (or “atmosphere”), called for in studies such as Smith et al. (2007). Elliot (1999)  
9 also speculated: “it is also possible that some of the antecedent variables combine together to jointly  
10 and interactively predict achievement goal adoption” (p.176). The closest thing to an exception  
11 regarding the above rule was the theme of positivity. Ideas surrounding positive feedback, positive  
12 affect, positive pre-competition talks (pep-talks), encouragement, collaboration/support, and fun (e.g.,  
13 in training) permeated the analysis and were consistently associated with positive effects on athlete  
14 motivation. Among specializing sport performers, where a key aim is to encourage athletes to view  
15 deliberate training as intrinsically rewarding by allowing continuity between play and work (cf., Côté et  
16 al., 2003), considerations of positivity should be central, even if accompanied by a focus on technical  
17 proficiency.

18 The current findings provide evidence that all the theories of motivation reviewed in the  
19 introduction are relevant to the study of social and motivational influences on motivation. Not only are  
20 these various constructs evident, there were suggestions that they may interact, such that, for example,  
21 relatedness might be used to incentivize competence (cf. Wentzel, 1993), or autonomy-support might  
22 contribute to an improved relationship (cf. Gurland & Grolnick, 2005). It is possible that with carefully  
23 designed research studies, the complex interplay between competence, relatedness, and autonomy  
24 needs, as indicated in this study, might begin to emerge.

25 *Recommendations and Implications*

1           The critical-realist approach in the current research cautions against the influence of having a  
2 single dominant paradigm/theory guiding the exploration and analysis of the motivational atmosphere.  
3 Duda and Whitehead (1998) expressed concerns related to the wide range of questionnaires assessing  
4 motivational climate purely from a dichotomous AGT perspective. Hence, the findings of this study  
5 may be used to inform a series of broader studies assessing the precise influence of coach, parent, and  
6 peer behaviors. Such studies may help to determine the relative importance of each social agent, give  
7 us the ability to establish which aspects of an intervention are the most influential in effecting  
8 motivational outcomes (Smith et al., 2007), and enable researchers to compare the observed behaviors  
9 of social agents with what the athletes perceive. This work would enable practitioners and researchers  
10 to: a) offer appropriate insights into adaptive and maladaptive contextually-relevant behaviors, b)  
11 educate coaches and parents about the effective management of peers in their sessions, and c) work  
12 directly with specializing athletes on the development of an effective peer-related atmosphere. Hence,  
13 from the perspective of applied intervention research, this study encourages practitioners and  
14 academics to devote time to studying themes and behaviors across social agents in a manner that will  
15 enhance the content of educational programs. In combination with other studies (e.g., Conroy &  
16 Coatsworth, 2007; Garcia-Bengoechea & Streat, 2007; Gould et al., 2008; Holt et al., 2008; 2009;  
17 Keegan et al., 2009; McCarthy & Jones, 2007), this research builds a picture of motivational influences  
18 across the developmental trajectory of athletes' careers, which should ultimately enable the design of  
19 training environments that encourage enjoyment, participation, persistence, and improvement –  
20 whether or not athletes progress to the elite level or simply maintain a recreational interest.

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### Figure Captions

Figure 1. Integrated representation of the emergent categories and themes that showed similarities between social agents for children at the specialising stage of their sporting careers. Where findings are consistent with other studies, this is represented by a + in brackets. Underlining represent themes introduced from other research for clarity and additional information.

Figure 2. The emergent categories and themes that related exclusively to each social agent in the motivational atmosphere for children at the specialising stage of their sporting careers. Where findings are consistent with other studies, this is represented by a + in brackets. Underlining represent themes introduced from other research for clarity and additional information.

Figure 1

<b>Coach - Parent – Peer</b>			
<b>Feedback and evaluative behavior</b>	<p><b>Coach Feedback</b></p> <p>a. Valence of feedback</p> <ol style="list-style-type: none"> <li>1. Praise and positive feedback (+Conroy &amp; Coatsworth, 2007)</li> <li>2. Criticism and negative feedback (+Conroy &amp; Coatsworth, 2007) (+Reeves <i>et al.</i>, 2009)</li> <li>3. Balanced feedback</li> </ol> <p>b. Implicated conception of the nature of ability</p> <ol style="list-style-type: none"> <li>1. Entity conception                             <ol style="list-style-type: none"> <li>i. Labelling-Summative</li> <li>ii. 'No point helping'</li> </ol> </li> <li>2. Incremental conception                             <ol style="list-style-type: none"> <li>i. Constructive-formative</li> <li>ii. Always offer help</li> </ol> </li> </ol> <p>d. Reinforcement strategies</p> <ol style="list-style-type: none"> <li>1. Punishment for mistakes (+McCarthy &amp; Jones, 2007)</li> <li>2. Rewarding normative success</li> <li>3. Effort-contingent reinforcement</li> <li>4. <u>Lack of reinforcement</u> (McCarthy &amp; Jones, 2007)</li> </ol>	<p><b>Parent evaluative behaviors</b></p> <p>a. Verbal feedback</p> <ol style="list-style-type: none"> <li>1. Criticism and negative feedback                             <ol style="list-style-type: none"> <li>i. Constant-lingering criticism</li> <li>ii. Negative feedback (+Reeves <i>et al.</i>, 2009) (+Holt <i>et al.</i>, 2009)</li> </ol> </li> <li>2. Balanced feedback (+Holt <i>et al.</i>, 2009)</li> <li>3. Praise and positive feedback (+Holt <i>et al.</i>, 2009)</li> <li>4. Implicated conception of the nature of ability                             <ol style="list-style-type: none"> <li>i. Formative-constructive</li> <li>ii. Summative-labeling</li> </ol> </li> </ol> <p>b. Comparative behaviors</p> <ol style="list-style-type: none"> <li>i. Comparisons to other children (+Gould <i>et al.</i>, 2008)</li> <li>ii. <u>Bragging / reflected glory</u> (Gould <i>et al.</i>, 2008)</li> </ol> <p>c. Behavioral reinforcement</p> <ol style="list-style-type: none"> <li>1. Effort-attitude contingent</li> <li>2. Unconditional praise</li> <li>3. Outcome contingent reinforcement</li> <li>4. <u>Stressing external reward structure</u> (Gould <i>et al.</i>, 2008)</li> </ol>	<p><b>Peer evaluative communication</b></p> <p>a. Immediate reactions to mistakes</p> <ol style="list-style-type: none"> <li>1. Anger and criticism (+Vazou <i>et al.</i>, 2005)</li> <li>2. Encouragement after mistakes (+Vazou <i>et al.</i>, 2005)</li> </ol> <p>b. Verbal commentary</p> <ol style="list-style-type: none"> <li>1. Praise and positive feedback (+Vazou <i>et al.</i>, 2005) (+Beltman + Volet, 2007)</li> <li>2. Criticism and negative feedback</li> </ol>
<b>Coach - Parent</b>			
<b>Leadership style</b>	<p><b>Coach leadership behaviors</b></p> <p>a. Autonomy supportive behaviors</p> <ol style="list-style-type: none"> <li>1. Collaborative decision style</li> <li>2. Open 'hands-off' approach</li> </ol> <p>b. Controlling style</p> <ol style="list-style-type: none"> <li>1. Controlling prescriptive style (+Conroy &amp; Coatsworth, 2007)</li> <li>2. Denying choices</li> </ol> <p>c. Relationships with athletes</p> <ol style="list-style-type: none"> <li>1. Liking and trust (closeness)</li> <li>2. Dedication-commitment</li> </ol> <p>d. Coach experience</p> <ol style="list-style-type: none"> <li>1. Experience of the sport</li> <li>2. Technical knowledge</li> </ol>	<p><b>Parent leadership style</b></p> <p>a. Controlling style</p> <ol style="list-style-type: none"> <li>1. 'Pushy' controlling style</li> <li>2. Pressure and influence on coach</li> </ol> <p>b. Autonomy supportive style</p> <ol style="list-style-type: none"> <li>1. <u>Open communication</u> (Gould <i>et al.</i>, 2008, + Holt <i>et al.</i>, 2008)</li> <li>2. <u>Allow child to earn autonomy</u> (Gould <i>et al.</i>, 2008)</li> <li>3. <u>Providing choice</u> (Holt <i>et al.</i>, 2008)</li> <li>4. <u>Involving child in decisions</u> (Holt <i>et al.</i>, 2008)</li> </ol> <p>c. Different parenting styles 'balance out' (+Holt <i>et al.</i>, 2008)</p> <p>d. Parents' expertise (also in Holt <i>et al.</i>, 2008)</p> <ol style="list-style-type: none"> <li>1. 'Something to aim for'</li> <li>2. Knowledge informs criticism</li> <li>3. Knowledge helps them coach me</li> <li>4. Naivety</li> </ol> <p>e. Relationship aspects</p> <ol style="list-style-type: none"> <li>1. Collaboration with player</li> <li>2. Empathy and understanding (+ Gould <i>et al.</i>, 2008; + Holt <i>et al.</i>, 2008; 2009)</li> </ol>	
<b>Emotional and affective responses</b>	<p><b>Coach emotional and affective responses</b></p> <p>a. Coach propensity for anger</p> <ol style="list-style-type: none"> <li>1. Anger over defeats</li> <li>2. Anger over mistakes</li> </ol> <p>b. Positivity and optimism</p> <ol style="list-style-type: none"> <li>1. Positive affective style</li> <li>2. Encouragement after mistakes</li> <li>3. <u>Congratulating success</u> (Conroy &amp; Coatsworth, 2007)</li> </ol> <p>c. Coach tolerance</p> <ol style="list-style-type: none"> <li>1) Defeats tolerated</li> <li>2) Mistakes tolerated</li> </ol>	<p><b>Parents' affective style</b></p> <p>a. Parent propensity for anger</p> <ol style="list-style-type: none"> <li>1. Anger over mistakes</li> <li>2. Anger over defeats (+Gould <i>et al.</i>, 2008)</li> </ol> <p>b. Tolerance of failures (+Gould <i>et al.</i>, 2008)</p> <p>c. Pride and positive affect (+Holt <i>et al.</i>, 2009)</p> <p>d. <u>Emotional intensity of parents</u> (Holt <i>et al.</i>, 2009)</p> <ol style="list-style-type: none"> <li>1. <u>Making it too important</u> (Gould <i>et al.</i>, 2008)</li> </ol>	
<b>Pre-performance Motivating behaviors</b>	<p><b>Coach pre-performance motivating behaviors</b></p> <p>a. Encouraging effort and mastery</p> <ol style="list-style-type: none"> <li>1. Emphasizing tasks and roles</li> <li>2. Emphasizing participation and effort</li> <li>3. Setting personal goals</li> </ol> <p>b. Encouraging rivalry and competition (+Bengoechea &amp; Strean, 2007)</p> <p>c. Avoidance and negative approaches</p> <ol style="list-style-type: none"> <li>1. Highlighting negative consequences</li> <li>2. Pessimistic approach to competition</li> <li>3. Using de-selection as a threat</li> <li>4. Pressure to work/try harder (+Bengoechea &amp; Strean, 2007)</li> </ol> <p>d. Approach-based and positive emphasis</p> <ol style="list-style-type: none"> <li>1. Building up confidence</li> <li>2. Showing pride and belief</li> <li>3. Highlighting positive possibilities</li> </ol> <p>e. Passion and energization</p>	<p><b>Parent pre-performance motivating behaviors</b></p> <p>a. Encouraging effort and mastery</p> <ol style="list-style-type: none"> <li>1. 'Everybody contributes'</li> <li>2. 'Play your own game'</li> <li>3. Emphasizing participation and effort</li> </ol> <p>b. Pressurizing behaviors (+Reeves <i>et al.</i>, 2009)</p> <ol style="list-style-type: none"> <li>1. Pressure for selection</li> <li>2. High expectations (+Pummell <i>et al.</i>, 2008)</li> <li>3. Discussion of consequences</li> <li>4. <u>Pressure to perform well</u> (Babkes &amp; Weiss, 1999)</li> </ol> <p>c. Building confidence (+Babkes &amp; Weiss, 1999)</p>	



Figure 2

Coach specific themes	Parent specific themes	Peer specific themes
<p><b>Instruction and pedagogic considerations</b></p> <p>a. Equal treatment and perceived fairness</p> <ol style="list-style-type: none"> <li>1. Differential treatment</li> <li>2. Equal opportunities in selection</li> <li>3. Equality in feedback</li> <li>4. Perceived unfairness in selection</li> </ol> <p>b. One-to-one coaching</p> <p>c. Task design</p> <ol style="list-style-type: none"> <li>1. Creating competition in practice</li> <li>2. Variety and fun</li> <li>3. Tasks focused on results</li> <li>4. Giving plenty of time to learn</li> <li>5. Tasks at optimal level</li> <li>6. Repetitious drills</li> <li>7. Playing without learning</li> </ol> <p>d. Selection</p> <ol style="list-style-type: none"> <li>1. Competition for places</li> <li>2. Consistent team selection</li> <li>3. Selecting on 'form'</li> <li>4. Squad rotation</li> <li>5. 'Nobody is secure'</li> <li>6. <u>Lack of opportunity</u> (Reeves <i>et al.</i>, 2009)</li> </ol> <p>e. Use of modeling-demonstration</p> <ol style="list-style-type: none"> <li>1. Asking me to model</li> <li>2. Asking other athletes to model</li> <li>3. Demonstrating techniques (+Conroy &amp; Coatsworth, 2007)</li> </ol> <p>f. Evaluation criteria</p> <ol style="list-style-type: none"> <li>1. Honesty of evaluations</li> <li>2. Mastery-based evaluations</li> <li>3. Normative evaluations</li> <li>4. Fault-finding/scrutinizing</li> </ol>	<p><b>Parent support and facilitation</b></p> <p>a. Material and emotional support</p> <ol style="list-style-type: none"> <li>1. Material support (+Bengoechea &amp; Streat, 2007) (+Beltman &amp; Volet, 2007)</li> <li>2. Emotional support (+Holt <i>et al.</i>, 2008; 2009)</li> <li>3. <u>Maintaining perspective</u> (Gould <i>et al.</i>, 2008)</li> </ol> <p>b. Conditionality of support (+Assor <i>et al.</i>, 2004)</p> <ol style="list-style-type: none"> <li>1. Support is conditional                             <ol style="list-style-type: none"> <li>i. Building indebtedness</li> <li>ii. Stressing 'return for investment' (Gould <i>et al.</i>, 2008)</li> <li>iii. Using sacrifice as leverage (Gould <i>et al.</i>, 2008)</li> </ol> </li> <li>2. Support is unconditional                             <ol style="list-style-type: none"> <li>i. "<u>It doesn't matter how you do</u>" (Pummell <i>et al.</i>, 2008)</li> <li>ii. <u>Unconditional love/caring</u> (Gould <i>et al.</i>, 2008)</li> </ol> </li> </ol> <p>c. Watching-spectating</p> <ol style="list-style-type: none"> <li>1. Watching facilitates feedback</li> <li>2. Someone to show off to</li> <li>3. Watching shows commitment</li> </ol>	<p><b>Peer relationships and social interactions</b></p> <p>a. Linking competence to social outcomes (+Allen, 2003) (+Vazou <i>et al.</i>, 2005)</p> <p>b. Friendship and affiliation (+Weiss <i>et al.</i>, 1996) (+Vazou <i>et al.</i>, 2005)</p> <p>c. Group identity and perceived belonging (+Weiss <i>et al.</i>, 1996) (+Vazou <i>et al.</i>, 2005)</p>
	<p><b>Parent play-and-teach behaviors</b></p> <p>a. Over-involved behaviors (+Gould <i>et al.</i>, 2008)</p> <ol style="list-style-type: none"> <li>1. 'Taking the game home'</li> <li>2. Accepting reflected glory</li> <li>3. Embarrassing behavior during competition</li> </ol> <p>b. Instructional behaviors (+Gould <i>et al.</i>, 2008)</p> <ol style="list-style-type: none"> <li>1. Conflicting advice to the coach (+Reeves <i>et al.</i>, 2009)</li> <li>2. Reinforcing coach's advice</li> <li>3. Overloading with advice</li> <li>4. <u>Shouting instructing during competition</u> (Holt <i>et al.</i>, 2009)</li> </ol> <p>c. Facilitating practice</p> <ol style="list-style-type: none"> <li>1. 'Garden-play' (Informal-fun practice) (+Bengoechea &amp; Streat, 2007) (+Babkes &amp; Weiss, 1999)</li> <li>2. Encouraging practice                             <ol style="list-style-type: none"> <li>i. Reminding / prompting to practice</li> <li>ii. <u>Parents help to practice</u> (Pummell <i>et al.</i>, 2008)</li> </ol> </li> </ol>	<p><b>Competition amongst peers</b></p> <p>a. Boasting (+Vazou <i>et al.</i>, 2005)</p> <p>b. Pressurizing behaviors (+Vazou <i>et al.</i>, 2005 – "<u>Don't want to lose</u>")</p> <p>c. Leading by example (+Vazou <i>et al.</i>, 2005)</p> <p>d. Rivalry and conflict (+Vazou <i>et al.</i>, 2005) (+ Weiss <i>et al.</i>, 1996)</p> <p>e. 'Positive rivalry' (+Weiss <i>et al.</i>, 1996)</p> <p>f. Discriminatory behaviors and decisions</p> <ol style="list-style-type: none"> <li>1. <u>Refusing to include certain players</u></li> <li>2. <u>'Glory hunters' exclude other from game</u> (Vazou <i>et al.</i>, 2005)</li> <li>3. <u>Unnecessary showing off</u> (Vazou <i>et al.</i>, 2005)</li> </ol> <p><b>Peer collaboration and altruistic behaviors</b></p> <p>a. Emotional and moral support</p> <ol style="list-style-type: none"> <li>1. <u>Intimacy and sharing</u> (Weiss <i>et al.</i>, 1996)</li> <li>2. <u>Look out for each other</u> (Vazou <i>et al.</i>, 2005)</li> <li>3. "<u>My opinion is valued</u>" (Allen, 2003)</li> </ol> <p>b. Emphasizing effort (+Vazou <i>et al.</i>, 2005)</p> <p>c. Collaborative learning</p> <ol style="list-style-type: none"> <li>1. Offering advice-help (+Weiss <i>et al.</i>, 1996)</li> <li>2. Withholding advice-help</li> <li>3. Extra practice in spare time (+Bengoechea &amp; Streat, 2007)</li> </ol> <p>d. Inclusive decisions and behaviors (+Weiss <i>et al.</i>, 1996)</p> <ol style="list-style-type: none"> <li>1. <u>Getting everyone involved</u> (Vazou <i>et al.</i>, 2005)</li> <li>2. <u>Work together / play as a team</u> (Vazou <i>et al.</i>, 2005)</li> </ol>