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A review of controlling motivational strategies from a self-determination theory perspective: implications for sports coaches

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DOI:
10.1080/17509840903235330

Citation for published version (Harvard):
Thogersen-Ntoumani, C, Ntoumanis, N & Bartholomew, K 2009, 'A review of controlling motivational strategies from a self-determination theory perspective: implications for sports coaches', *International Review of Sport and Exercise Psychology*, vol. 2, no. 2, pp. 215-233. https://doi.org/10.1080/17509840903235330

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A Review of Controlling Motivational Strategies from a Self-Determination Theory Perspective: Implications for Sports Coaches

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Date of submission: 03/02/09

Date of resubmission: 09/06/09

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Abstract

The aim of this paper is to present a preliminary taxonomy of six controlling strategies, primarily based on the parental and educational literatures, which we believe are employed by coaches in sport contexts. Research in the sport and physical education literature has primarily focused on coaches' autonomy-supportive behaviours. Surprisingly, there has been very little research on the use of controlling strategies. A brief overview of the research which delineates each proposed strategy is presented, as are examples of the potential manifestation of the behaviours associated with each strategy in the context of sports coaching. In line with self-determination theory (Deci & Ryan, 1985; Ryan & Deci, 2002), we propose that coach behaviours employed to pressure or control athletes have the potential to thwart athletes' feelings of autonomy, competence, and relatedness, which, in turn, undermine athletes' self-determined motivation and contribute to the development of controlled motives. When athletes feel pressured to behave in a certain way, a variety of negative consequences are expected to ensue which are to the detriment of the athletes' well-being. The purpose of this paper is to raise awareness and interest in the darker side of sport participation and to offer suggestions for future research in this area.

Keywords: controlling interpersonal style, coach behaviours, intrinsic motivation, extrinsic motivation, well-being

A Review of Controlling Motivational Strategies from a Self-Determination Theory Perspective: Implications for Sports Coaches

There are various social factors present in the sport context which may impact upon athletes' motivation (Vallerand & Losier, 1999). Of these, perhaps one of the most important is the influence of the coach (see Horn, 2002; Amorose & Anderson-Butcher, 2007). A coach plays a major role in shaping the psychological experiences athletes derive from their sport participation (Mageau & Vallerand, 2003). Many coach behaviours have a positive influence on athletes' motivation and well-being, but maladaptive coaching behaviours and strategies are not altogether uncommon. For example in 2007, a very public confrontation between a Ukrainian coach and his daughter rocked the World Swimming Championships. The 38-year-old coach pushed and hit the teenage backstroke star after she failed to qualify for the 50m final.

For many children and adolescents, the extreme mental and physical demands placed upon them in the sport context can lead to damaged self-esteem and affective disorders, such as anxiety and depression (Ryan, 1996; Scanlan, Stein, & Ravizza, 1991). Ultimately, the chronic stress associated with participation in competitive sport can lead to burnout (Gould, 1993). Research has also shown that other serious problems, such as eating disorders, occur more frequently amongst athletes compared to the general population (Sundgot-Borgen & Torstveit, 2004). These negative outcomes can be particularly apparent when youths experience excessive pressure from coaches and other close adults (Fraser-Thomas & Côté, 2009; Udry, Gould, Bridges, & Tuffey, 1997). The purpose of the current paper is to focus on the potential psychological impact of maladaptive coach behaviours upon child and adolescent athletes.

Research conducted to date in the coaching context has utilised measures such as the Leadership for Sport Scale (LSS, Chelladurai & Saleh, 1980; RLSS, Zhang, Jensen, & Mann,

1997), the Coach Behaviours Assessment System (CBAS, Smith, Smoll, & Hunt, 1977; CFQ, Amorose & Horn, 2000) and the Coaching Behaviour Scale for Sport (CBS-S; Côté, Yardely, Hay, Sedgwick & Baker, 1999), to assess the impact of a variety of coaching behaviours upon outcomes such as motivation, enjoyment, satisfaction, self-esteem, and perceived competence (for a review, see Chelladurai & Reimer, 1998). This work has shown that the coaching behaviours used in youth sport have a significant influence on the psychological experiences of young athletes (see Smoll & Smith, 2002). However, research carried out in the coaching literature has paid little attention to the underlying motivational mechanisms associated with the use of different coaching behaviours. Further, Amorose and Horn (2000) suggested that the specific coaching behaviours explored in these studies are limited in scope. These authors proposed that there may be are other potentially important coaching behaviours that need to be examined and recommended the use of a self-determination theory perspective (SDT; Deci & Ryan, 1985; Ryan & Deci, 2002).

Thus, grounded within SDT, the current paper will focus on the nature and use of maladaptive coaching strategies. Although adaptive (autonomy-supportive) coaching strategies have been examined in the SDT literature, comparatively very little SDT-based research in the sport and physical education context has focused on the use of maladaptive (controlling) motivational strategies by coaches. The use of controlling strategies has been more extensively discussed in the parental and educational literatures. Evidence from these literatures will be briefly presented in this paper alongside existing evidence from the sport literature in order to highlight how controlling strategies might manifest in the context of sports coaching. Although direct comparisons between parental, educational, and sport contexts should be made with caution, coaches, like parents and teachers, are significant social agents placed in authority positions. We hope that by investigating the darker side of coaching and identifying aspects of

the social context which are detrimental to the psychological well-being of athletes, we will better understand the negative outcomes experienced by young athletes in sport.

Motivation and Autonomy-Supportive and Controlling Interpersonal Styles

Central to SDT is the distinction between self-determined and controlled motivation. Although both produce motivated action, the subsequent behaviours reflect different levels of perceived autonomy and coercion. To be self-determined means to act with a full sense of volition and choice (Ryan & Deci, 2002). Behaviours are fully endorsed by the individual and engaged in because they are interesting (i.e., intrinsic motivation) or personally important (i.e., identified regulation). Contrastingly, to be controlled means to act with the feeling of pressure (Deci & Ryan, 2000). Coercive demands and reward contingencies (i.e., external regulation), or one's sense of guilt or obligation (i.e., introjected regulation) can all pressure an individual into engaging in requested behaviours. As a result, controlled behaviours are carried out but reflect a lack of personal endorsement. Research guided by SDT has consistently shown that individuals whose motivation is more self-determined, as opposed to controlled, tend to report positive outcomes such as enhanced persistence, effort, performance, vitality, self esteem, and well-being (Ryan & Deci, 2002). Due to their supervisory role, sport coaches are in a unique position to facilitate athletes' self-determined motivation through the ways in which they interact with them (Vallerand & Losier, 1999).

In line with SDT, Vallerand and Losier (1999) suggested that a coach's behaviour can be viewed in terms of two interpersonal styles. The first of these is known as the autonomy-supportive style. This style supports self-initiated strivings and creates conditions for athletes to experience a sense of volition, choice, and self-endorsement. The behaviours identified as being characteristic of an autonomy-supportive style include the provision of choice, rationale, and opportunities for initiative and independent work, taking the others' perspective into account and acknowledging their feelings, and providing feedback on competence that does not

control or direct behaviour (Deci, Eghrari, Patrick, & Leone, 1994; Reeve & Jang, 2006)[1]. A wide variety of studies have demonstrated the advantages of autonomy-supportive contexts during teaching-related (e.g., Boggiano, Flink, Shields, Seelbach, & Barrett, 1993) and parental interactions (e.g., Grolnick, Deci, & Ryan, 1997). Work guided by SDT in the sport and physical education literature has also highlighted the importance of autonomy support (see Mageau & Vallerand, 2003). For example, evidence suggests that autonomy-supportive behaviours are related to more self-determined forms of motivation in athletes (Pelletier, Fortier, Vallerand, & Briere, 2001). Further, the utility of SDT as a conceptual framework for designing autonomy-supportive motivational climates to produce optimal performance outcomes in the sport context has also been demonstrated (Mallet, 2005).

An autonomy-supportive interpersonal style can enhance athletes' self-determined motivation because it contributes to the satisfaction of their psychological needs. Deci and Ryan (1985) proposed three innate psychological needs - autonomy, competence, and relatedness. Autonomy refers to the degree to which individuals feel volitional and responsible for the initiation of their behaviour and, therefore, represents a need for an inner endorsement of one's own actions (Deci & Ryan, 2000). The need for competence concerns the degree to which individuals feel able to achieve their goals and desired outcomes and experience opportunities in which to express their capabilities (Ryan & Deci, 2002). Finally, the need for relatedness is defined as the extent to which individuals feel a secure sense of belongingness and connectedness to others in their social context (Deci & Ryan, 2000). Research carried out in the sport setting has indeed demonstrated that athletes tend to experience greater psychological need satisfaction when coaches display more autonomy-supportive behaviours (Gagné, Ryan, & Bargmann, 2003; Reinboth, Duda, & Ntoumanis, 2004), and has provided evidence to support the mediational effect of need satisfaction in the relationship between

perceived autonomy-supportive coaching behaviours and athletes' self-determined motivation (Amorose & Anderson-Butcher, 2007).

In contrast, those in a position of authority can exhibit a controlling interpersonal style. For example, coaches can behave (deliberately or otherwise) in a coercive, pressuring, and authoritarian way in order to impose a specific and preconceived way of thinking and behaving upon their athletes. As a consequence, athletes often comply but do not endorse the requested behaviours. The external pressures applied by the coach are perceived by the athletes to be the origin of their behaviour and the resultant loss of control undermines the athletes' psychological needs and sense of self-determination (Deci & Ryan, 1985). In other words, controlling coaching behaviours induce a change in the athletes' perceived locus of causality from internal to external (Ryan & Deci, 2002). This change can result in a vicious circle in which athletes feel compelled to respond in ways that potentially thwart their own needs simply to satisfy their coach's desires and expectations (Mageau & Vallerand, 2003).

SDT-based empirical research on coaches' controlling interpersonal style is somewhat scarce. A study by Pelletier et al. (2001) is a notable exception which tested a model incorporating swimmers' perceptions of their coaches' controlling and autonomy-supportive interpersonal behaviours, and five forms of behavioural regulation (intrinsic motivation, identified, introjected, and external regulation, and amotivation). In order to tap coaches' coercive (controlling) behaviours the researchers incorporated a 4-item scale which included items such as "My coach pressures me to do what he/she wants". The findings indicated that greater levels of self-determined motivation occurred when coaches were experienced as autonomy-supportive, whereas perceptions of coach control fostered non-self-determined forms of regulation, particularly external regulation. This study also revealed a significant but relatively small negative association between the latent factors of swimmers' perceptions of their coach's provision of autonomy support and control (r = -0.36). As a result, Pelletier et al.

(2001) suggested that controlling behaviours may not be the exact opposite of autonomy-supportive behaviours. Similar findings have also been reported by Tessier, Sarrazin, and Ntoumanis (2008) in work investigating the interpersonal behaviours of physical education teachers. It follows that coaches may engage in both controlling and autonomy-supportive behaviours simultaneously and to different extents. Such findings strengthen the need to understand more about the typical behaviours that are implicated in a controlling interpersonal style.

Mageau and Vallerand (2003) identified the use of overt control, criticisms, controlling statements, and encouraging an athlete's ego-involvement as examples of controlling behaviours used by coaches. Nonetheless, their review focused primarily on autonomy-supportive behaviours, as has been the case with the vast majority of SDT-based research in sport and physical education. A more systematic consideration of controlling strategies within the context of SDT is clearly required. Thus the remainder of this paper will present a preliminary taxonomy of six salient controlling strategies (and the behaviours associated with each), drawn from a literature review of the relevant parental, educational, and to a lesser extent, sport literatures. A brief overview of the extant research which supports each proposed strategy is presented, as are examples of their potential manifestation in the sport context. We suggest that each strategy has the potential to undermine athletes' feelings of autonomy, competence, and relatedness, and to contribute to the development of controlled motivation and psychological ill-being.

A Taxonomy of Six Controlling Coaching Strategies

(1) Tangible Rewards

Tangible rewards, such as gold stars, money, and medals, are all extrinsic reinforcements that can be used to induce participation or persistence in some sort of behaviour. Deci and Ryan (1985) have shown that extrinsic rewards often have a detrimental effect on intrinsic

motivation. Whilst some authors disagree with this argument (see, for example, Cameron & Pierce, 1994), there is much evidence, primarily from educational settings, to support this negative effect under certain conditions. Deci, Koestner, and Ryan (1999) have argued specifically that tangible rewards damage intrinsic motivation in the context of an interesting task, especially when rewards are expected, and when they are provided as an incentive for *engaging with and completing a task* (task-contingent rewards), or for *reaching certain performance standards* (performance-contingent rewards). Competition-contingent rewards, which are given for *beating opponents* during direct competition, have also been shown to undermine intrinsically motivated behaviour (Vansteenkiste & Deci, 2003) and have been linked with anxiety about one's performance (Houlfort, Koestner, Joussemet, Nantel-Vivier, & Lekes, 2002).

Ryan (1980) found that collegiate football players who were rewarded with athletic scholarships were subsequently less intrinsically motivated to play football because they perceived the scholarships to be extrinsically controlling (for similar findings, see Medic, Mack, Wilson, & Starkes, 2007). Interestingly, however, athletic scholarships in college wrestlers and female athletes (who receive such support less frequently) were perceived as an affirmation of their athletic competence and increased their subsequent intrinsic motivation. Ryan (1980) suggested that the undermining effect of the scholarships on the intrinsic motivation of football players could have resulted from coaches using the scholarship as leverage to control the players' behaviour. This hypothesis was confirmed in a more recent study by Amorose and Horn (2000) who found that changes in feelings of intrinsic motivation were primarily attributable to coaching behaviours, rather than whether athletes were on a scholarship or not. Specifically, athletes who perceived their coaches to predominantly display autocratic and controlling behaviours demonstrated less intrinsic motivation. These findings indicate that it may not be the reward per se that undermines intrinsic motivation, but the way

in which it is presented and used by the coach, that is, whether it is presented in an informational (autonomy-supportive) or a controlling (autonomy-thwarting) fashion. Research suggests that rewards which are delivered in a controlling and pressuring interpersonal context will undermine intrinsic motivation (Reeve & Deci, 1996; Vansteenkiste & Deci, 2003).

Controlling coaches emphasise a specific way of thinking and behaving and may offer extrinsic incentives and rewards to secure athlete compliance (Mageau & Vallerand, 2003). Although this use of rewards may appear to be an effective way of controlling athlete behaviour, it can undermine athletes' feelings of personal achievement, fun, and enjoyment, which are important determinants of their sport participation (Lee, Whitehead, & Balchin, 2003; MacLean & Hamm, 2008). Coaches who place a great emphasis on rewards will focus their athletes on extrinsic reasons for their sport participation, undermining the intrinsic satisfaction which initially brought athletes into the sport (Ryan & Deci, 2000). Krane, Greenleaf, and Snow (1997) highlighted this undermining effect in a case study of an elite female gymnast who was awarded stars by her coach for exceptional performance. The gymnast learnt to place great importance on the significance of these extrinsic rewards, to the extent that the rewards themselves became the primary motivation for her sport involvement.

To help reduce athletes' perceptions of rewards as controlling, coaches who use rewards should administer them in an informational and autonomy-supportive way, focusing on increasing feelings of autonomy and competence by rewarding effort, personal improvement, and behaviours which are under the athletes' control.

(2) Controlling Feedback

Findings from the coaching literature indicate that the type of feedback young athletes perceive their coaches to give them is critical to the development of their perceptions of competence, autonomy, and intrinsic motivation (Hollembeak & Amorose, 2005; Mouratidis, Vansteenkiste, Lens, & Sideridis, 2008). Feedback contains an informational element regarding competence,

however it can also have a controlling aspect which conveys expectations and desires about an individual's behaviour in an effort to incite the person into re-emitting or changing the behaviour. When the informational element is not salient and the controlling aspect is, the individual will be under pressure to act in a specific manner (Mageau & Vallerand, 2003). As such, controlling feedback promotes interpersonal control and external reasons for task engagement, undermining feelings of autonomy. For example, early experimental studies using positive but controlling locutions (e.g., "Keep it up. I would like you to do even better in the next game"; Kast & Connor, 1988), demonstrated that the experimenters' expectations and desires about the participants' behaviour were perceived as a form of control which undermined autonomy and intrinsic motivation.

Pressuring feedback can manifest itself not only in terms of *instruction*, but also in terms of *criticism* and *positive reinforcement (praise)*. In terms of the former, research conducted in the sport setting has employed the CFQ (Amorose & Horn, 2000), a questionnaire version of the CBAS (Smith et al., 1977), to assess athletes' perceptions regarding the type of feedback their coaches give them in response to their performance successes and failures. This work supports the negative impact of critical feedback on intrinsic motivation. For example, Amorose and Horn (2000) found that a high frequency of criticisms (punishment-oriented feedback) was negatively related to female athletes' intrinsic motivation. Further, although not embedded within an SDT-perspective, Black and Weiss' (1992) study found that coaches' criticism not only had a negative impact upon perceived motivation and competence, but also on perceived success, enjoyment, and effort in a sample of 15-18-year-old swimmers.

Whilst research has shown that praise can be perceived as positive and affirming competence, it can also be viewed as negative and controlling (Deci et al., 1999; Reeve & Jang, 2006). For example, Hollembeak and Amorose (2005) reported a negative relationship between positive feedback (praise) and perceived competence. Previous evidence also suggests that

praise may result in low perceived competence when it is given non-contingently and inappropriately (Horn, 1985). Thus, in a controlling context, general praise which is non-contingent on performance may undermine feelings of competence, autonomy, and intrinsic motivation as it can be perceived as insincere and a contrived attempt to reinforce particular behaviours (Henderlong & Lepper, 2002; Kohn, 1993). Further, even when praise is not purposefully controlling, athletes may learn to select only those behaviours that have been previously praised by their coach in an attempt to please them. Deci et al. (1999) suggested that by responding in this way, individuals can thwart their own need for autonomy and thus undermine their intrinsic motivation.

(3) Excessive Personal Control

Barber (1996) proposed that excessive personal control can inhibit or intrude upon the psychological and emotional development of children. Achieving a sense of autonomy whilst maintaining a positive relationship with parents has been identified as a critical task in adolescence. In fact, research suggests that several forms of negative affect may be linked to the thwarting of the autonomy and relatedness needs during parent-child interactions (Allen, Hauser, Eickholt, Bell, & Conner, 1994). Rather than allowing children to autonomously express their own opinions and individuality, controlling parents may *impose their own values* upon them. This may result in children conforming to parental values which are not fully congruent with their own in order to avoid value-related conflicts and feelings of rejection, anxiety, and guilt (Grolnick et al., 1997). Controlling parents will also interact in a way which emphasises interpersonal control. For example, mothers' *constraining verbal expressions and pressuring language* have been negatively related to children's intrinsic motivation (Deci, Driver, Hotchkiss, Robbins, & McDougal-Wilson, 1993). Similar findings have also been reported in the educational setting in which controlling teachers also tend to stress personal control, prevent children from expressing opinions which differ from their own, and use

controlling vocalisations (Assor, Kaplan, Kanat-Maymon, & Roth, 2005; Reeve & Jang 2006). Not letting children work at their own pace, monopolising the conversation, using orders, directives, and commands, asking controlling questions, and using deadline statements are also behaviours associated with an excessively teacher-centred agenda and have been shown to undermine pupils' intrinsic motivation and predict negative feelings during learning, such as low self-esteem, anger, and anxiety (e.g., Assor & Kaplan 2001; Assor et al., 2005; Boggiano et al., 1993; Flink, Boggiano, & Barrett, 1990).

High levels of success in sport require high levels of commitment from both the athlete and the coach. On some occasions, the coach's commitment could transform into excessive personal control. When coaches equate the performance of their athletes with their own self-worth and reputation, they are likely to create pressurised, coach-centred training environments. In such an environment, athletes would be forced to comply with the training regime dictated by their coach and pushed to their physical limits in order to produce winning performances. A coach who perceives his or her athletes merely as objects that should be controlled to obtain certain outcomes will make little, if any effort at all, to appreciate the athletes' perspective. Instead, in a fashion similar to that of controlling parents, he or she is likely to impose his or her own values and invalidate or discount the athletes' own feelings and opinions. Anecdotal reports suggest that controlling coaches do employ these strategies to pressure athletes towards coach-prioritised behaviours and goals. For example, Kristie Phillips, an ex-American gymnastics champion, talked of her coach's unrelenting demands conveyed only via commands and orders during training (Ryan, 1996). In such instances, athletes feel they have to suppress their own feelings and opinions and relinquish their autonomy in order to maintain connectedness with their coach.

Research utilising the LSS (Chelladurai & Saleh, 1980) has found that these kind of autocratic behaviours negatively predict feelings of autonomy, relatedness, and subsequent

intrinsic motivation in adolescent athletes (Hollembeck & Amorose, 2005). This is not surprising as, for example, authoritarian coaches assert their authority and distance themselves emotionally from their athletes, leaving little room for feelings of connectedness. Another dimension of coach behaviour assessed by the LSS, training and instruction, was also found by Hollembeck and Amorose (2005) to have a significant negative affect on feelings of autonomy. The authors suggested that when coaches employ a great deal of instructional behaviour, they may leave little room for athlete input. Although the role of a coach clearly involves directing athlete behaviour, when directions are consistently communicated in an overly controlling way (through the use of demands, orders, and pressuring language), they undermine athletes' psychological needs. The athlete may learn to follow orders but he or she will not be able to appreciate and internalise the value or importance which underlie a prescribed activity.

Coaches who create coach-centred training environments and demand strict compliance to their training decisions are likely to monitor their athletes closely as they complete set sessions. *Surveillance* is defined as the constant monitoring of a subordinate's behaviour by someone in a position of authority (Lepper & Greene, 1975). Research from the educational literature has shown that the use of surveillance reduces pupils' intrinsic motivation in the classroom environment (Lepper & Greene, 1975). These authors proposed that in such situations the pupils perceive themselves as engaging in an activity because of the external pressure produced by the excessive surveillance. Research further suggests that this undermining effect is particularly apparent when surveillance is accompanied by an explicitly stated controlling intention to evaluate performance (Enzle & Anderson, 1993). A relatively recent study by Kerr and Sattin (2000) from the parental literature has also highlighted the damaging effects of intrusive monitoring upon children's perceptions of personal control, self-esteem, and levels of depression. Although athletes' performances need to be constantly

evaluated, these findings suggest that the use of excessive surveillance in coaching may have an adverse impact on athletes' intrinsic motivation and well-being.

Controlling coaches are also likely to *impose predetermined goals* on their athletes. Such coaches often have a very controlling 'you do as I say and you will achieve this' mentality. In the sport literature, research has demonstrated that as long as the athlete is committed to a goal and has the ability to achieve it, goal setting is an effective performance enhancement technique (Kyllo & Landers, 1995). However, when coaches pressure athletes towards obtaining imposed and predetermined goals, the athletes may come to perceive themselves as pursuing the goals for extrinsic reasons and, thus, perceive an external locus of causality with respect to their goal strivings. Goals which are pursued for controlled motives have been shown to be unrelated to effort and goal attainment, and to be negatively related to athlete well-being (Smith, Ntoumanis, & Duda, 2007). To be effective, goals should be jointly set by the athlete and the coach and should be perceived by both as challenging, yet realistic to the athlete's current performance level. Under circumstances in which coaches have to set goals for their athletes, for example when athletes are very inexperienced, this must be done in an autonomy-supportive way. Involving athletes in the goal-setting process and providing a rationale for the set goals will facilitate their feelings of goal ownership.

Qualitative and anecdotal evidence also suggests that coaches can become over-possessive, over-protective, or engage in *over-intrusive behaviours* (e.g., Scanlan, Stein, & Ravizza, 1991). For example, some coaches may isolate their athletes from others, telling them that they must not speak to other athletes and coaches as they are competitors or enemies (Krane et al., 1997). In extreme circumstances, the athlete's life is expected to revolve entirely around his or her sport. For example, Ryan (1996) reported that the Romanian coach Karolyi wielded total control over every aspect of his gymnasts' lives. They lived in dormitories at his gym, trained eight hours a day, fit in a few hours of school and ate only what food he provided

them. This is unlikely to be a healthy situation, particularly when an athlete is not performing well. Athletes competing at lower levels may also experience excessive pressure from their coaches who sometimes expect them to prioritise their sport involvement over other important aspects of their life, such as spending time with friends (Fraser-Thomas & Côté, 2009).

(4) Intimidation Behaviours

Behaviours which are used to intimidate others involve the display of power-assertive strategies such as *verbal abuse* and *yelling*, the use and threat of *physical punishment*, and the launch of *personal attacks* on the individual which are designed to *humiliate* and *belittle*. All of these strategies can be used to control behaviour as they foster external regulation by creating pressure from outside to behave in certain ways to avoid external punishment (Ryan, 1982). Behaviours obtained via these compliance techniques are problematic in the sense that they occur in the absence of any internalisation of the underlying values of the activity. The use of such strategies is also likely to have a direct effect on the well-being of those subjected to them. For example, in the parental literature yelling, verbal threats and physical punishment have all been found to produce negative consequences such as depression, low self-esteem, and social withdrawal (Barber, 2001). Further, personal attacks designed to question the worth, place, contribution and loyalty of other family members undermine feelings of relatedness and have been shown to be a strong predictor of loneliness (Barber, 1996).

Qualitative research carried out in the sport context suggests that coaches do engage in such power-assertive behaviours (D'Arripe-Longueville, Fournier, & Dubois, 1998; Fraser-Thomas & Côté 2009). Côté et al. (1999) also suggested that coaches use psychological strategies such as intimidation, fear, and/or yelling at their players to exhort them to higher performance. As a result, these authors included a subscale reflecting these behaviours (coaches' negative personal rapport) in the development of the CBS-S (Côté et al., 1999). Empirical studies utilising the CBS-S have provided some evidence regarding the negative

impact of coaches' intimidation behaviours on athletes' psychological experiences. For example, athletes who report feeling intimidated and fearful of their coach also report higher levels of sport anxiety (Baker, Côté, & Hawes, 2000).

The use of intimidation behaviours to exhort successful performance is clearly exemplified by American basketball coach Bob Knight. Knight's fundamental approach to motivation was to use fear. He believed that if his players were afraid of getting yelled at and feared him more than the opposition, they would play better. Knight was even once arrested for physical assault after head-butting a player (Feinstein, 1989). Intimidation behaviours may not be rare in the sport context as they are often considered necessary to enforce discipline or to build character (Duquin, 1994). However, as discussed earlier, evidence from the coaching literature suggests that that the negative words and actions of coaches can profoundly affect the long-term emotional health of their athletes (Baker et al., 2000).

(5) Promoting Ego-Involvement

Ego-involvement has been extensively researched in the achievement goal theory literature and is also discussed in the self-determination theory literature. This concept refers to evaluating one's own competence and performance by reference to others, rather than in relation to self-referenced criteria (Nicholls, 1989). When ego-involved, self-esteem is constantly threatened and behaviour is motivated by the desire to protect or enhance levels of self-esteem. This is because when ego-involved, individuals view their self-worth as contingent upon their performance. As such, ego-involvement encourages introjected regulation in which behaviours are performed to attain ego enhancement and feelings of worth (Ryan & Deci, 2002). Thus, individuals are controlled in that they perform an activity to prove to themselves that they are good at it and therefore worthy individuals (Ryan, 1982). As a result ego-involved individuals put more pressure on themselves in competitive situations because their performance is a measure, perhaps the only measure, of their self-esteem (Nicholls, 1989).

Coaches who create ego-involving environments *stress competition, public evaluation, normative comparisons,* and make *externally-referenced criteria for success* salient (Ames, 1992). Numerous studies in the sport and physical education literature have supported the negative effect of an ego-involving climate on intrinsic motivation (Duda, Chi, Newton, Walling, & Catley, 1995; Ntoumanis & Biddle, 1999). Further, Krane et al. (1997) have suggested that the ego-involving coach climate experienced by the elite female gymnast in their case study significantly contributed to the development of her contingent self-esteem, disordered eating, and depression.

(6) Conditional Regard

Conditional regard refers to the provision of love, attention, and affection by those in a position of authority when desired attributes or behaviours are displayed by their subordinates (*positive regard*), and the withholding of love, attention and affection when these attributes and behaviours are absent (*negative regard*; Assor, Roth, & Deci, 2004). In the parental literature, conditional regard has been shown to promote contingent self-esteem, thwart personal growth, and damage psychological functioning and general well-being (Assor et al., 2004; Barber, 1996; Hewitt & Flett, 1991). For example, Assor et al. (2004) reported that parental use of conditional regard led to children's introjected regulation which mediated the enactment of desired behaviours. However, conditional regard and introjected regulation were also associated with fluctuations in the children's self-esteem, shame and guilt after failure, poor coping skills, feelings of perceived parental disapproval, and feelings of resentment towards parents.

There has been no empirical research on the use of conditional regard in the context of sport. However, qualitative research suggests that some coaches do indeed use negative conditional regard, displaying complete indifference towards athletes after they have lost a competition, apparently in an attempt to increase future effort and exhort higher performance

(D'Arripe-Longueville et al., 1998; Fraser-Thomas & Côté 2009). Coaches may also use *negative affect-laden expressions* (e.g., "you have really let me down"), and other guilt-inducing statements, to express their disappointment and withdraw their affection when athletes have not engaged in desired behaviours. An illustration of this can be found in the case study by Krane et al. (1997) in which the interviewed gymnast described how her coach often used negative affect-laden statements in order to evoke feelings of shame if the gymnasts ate something that the coach did not approve of.

Mageau and Vallerand (2003) suggested that because conditional regard makes a coach's attention and acceptance highly contingent upon his or her athletes emitting appropriate thoughts and behaviours, the athletes may come to see their own thoughts and feelings as a threat to the emotional bond they have with their coach. Thus, athletes may suppress their own opinions and relinquish their autonomy in order to maintain a satisfactory relationship with their coach. Ultimately, the repeated experience of conditional regard is likely to produce high-levels of contingent self-worth as athletes learn that they are less worthy as a person if they fail, or do not perform the behaviours desired by their coach.

Conclusions and Future Directions

The aim of this paper was to present a preliminary taxonomy of six controlling strategies (and examples of the behaviours associated with each) which might be employed by coaches in sport contexts. This is not designed to be an exhaustive list. Rather we hoped to identify a parsimonious set of controlling strategies that probably have direct relevance to coaching behaviours. In order to do this we have presented work form the parental, educational, and sport literatures. We believe that all of these strategies are correlated to some extent but, at the same time, we suggest that each strategy has some unique characteristics. Further, each has the capacity to undermine athletes' feelings of autonomy, competence, and relatedness, and to contribute to the development of controlled motivation. Although these controlling strategies

can sometimes appear to be adaptive in that they evoke desired behaviours and performance outcomes in the short term, we have presented a range of evidence from various contexts which suggest that such techniques may ultimately forestall athletes' intrinsic motivation, capacity for self-regulation, and well-being.

Although research in sport has not investigated the relative impact of the controlling motivational strategies identified in this paper, we believe that some coach behaviours could be more damaging to the psychological well-being of young athletes than others. For example, the use of intimidation behaviours is likely to have a severe negative effect on the well-being of those subjected to them (Barber, 1996). Similarly, conditional regard has been associated with many serious forms of psychological ill-being in the parental literature (Hewitt & Flett, 1991). It is likely, therefore, that controlling motivational strategies which attempt to control athlete behaviour by overtly manipulating or exploiting the coach-athlete relationship (through intimidation, negative conditional regard and guilt-induction) will produce the most damaging effects upon athlete well-being, compared to strategies such as the use of tangible rewards. These strategies will probably have strong undermining effects even for athletes who have initially high levels of self-determination. Over the long term, continued exposure to controlling coach behaviours will thwart athletes' psychological needs and, in turn, contribute to the development of controlled motives.

Although an autonomy supportive style of coaching is preferable, as we argued earlier, the support of autonomy and the control of behaviour may not be two sides of the same coin. This may not be a simple question of preferring one style over the other in an all or none fashion. As such, coaches may in fact use a variety of autonomy-supportive and controlling behaviours to a different extent. A limitation of this paper is the lack of extensive empirical research on coaches' controlling motivational strategies. Future research needs to explore the antecedents of controlling coaching strategies (e.g., situational pressure, coach personality,

experience, and perceptions of athlete motivation and behaviour) if we are to better understand why coaches engage in strategies that have the potential to be psychologically damaging for their athletes. Further research, in particular longitudinal studies, is also needed to understand how controlling interpersonal behaviours are implicated in athletes' motivation and ill-being. We believe that when negative outcomes are the focus of an investigation, controlling coaching strategies will account for a larger amount of variance compared to autonomy-supportive strategies. Therefore the role of such behaviours in predicting maladaptive outcomes such as overtraining and burnout, body image concern, disordered eating, and self-enhancement strategies should be examined (Sedikides, Campbell, Reeder, & Elliot, 1998; Sundgot-Borgen & Torstveit, 2004; Udry et al., 1997). We hope that our initial efforts to identify and discuss the behaviours associated with a controlling interpersonal style will be helpful in this regard. Indeed, we are currently designing and validating a measure of coaches' controlling behaviours during coach-athlete interactions. Such a scale could facilitate research into the darker side of coaching and help coaches self-reflect on the motivational strategies they employ.

Footnotes

[1] Autonomy support also entails valuing and demonstrating confidence in the other person. It is theorised, therefore, that an autonomy-supportive interpersonal style will also facilitate feelings of relatedness and competence (Deci & Ryan, 2000). In the current paper, however, we use the term autonomy-supportive (as opposed to needs-supportive) behaviours in order to refer to the behaviours which are characteristic of an autonomy-supportive interpersonal style.

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1 Table 1: *Coaches' Controlling Motivational Strategies*

Controlling motivational strategy	Explanation	Examples from the sport context
Tangible rewards - Task engagement - Task completion - Performance - Competition	The use of tangible rewards designed to manipulate athlete behaviour and promote desired/expected behaviours.	A coach who promises to reward athletes if they engage in the training tasks he/she sets them. A coach who uses the fact that athletes' are on a scholarship as leverage to ensure they complete set training sessions. A coach who focuses on outcomes and promises to reward athletes only if they perform exceptionally well/beat their opponents.
Controlling feedback - Instruction - Criticism - Praise	The use of instructional feedback which conveys expectations about athletes' behaviour. The use of overly critical feedback which attempts to anger athletes in an effort to motivate them to perform better. The use of praise to reinforce expected/desired athlete behaviours.	A coach who uses feedback to direct future behaviour, as opposed to providing information regarding present performance. A coach who picks up on all the negative aspects of his/her athletes' performances but does not say anything positive or offer suggestions for improvement. A coach who praises athletes in such a way that the latter learn to perform only those behaviours which are desired by the coach.
Excessive personal control - Imposed values/opinions - Controlling statements and vocalisations - Surveillance - Imposed goals - Over-intrusive behaviours	The use of behaviours which are employed to impose opinions held by the coach upon his/her athletes, ignoring the athletes' own perspective. The use of constraining verbal expressions and pressuring locution employed to ensure that athletes follow the prescribed coach-centred agenda. The use of excessive monitoring and surveillance during training. The use of behaviours which are employed to impose goals, dictated by the coach, upon his/her athletes. Attempts to influence aspects of the athletes' lives which are not directly relevant to their sport participation.	A coach who views an opinion which differs from his/her own as personal criticism and who is unresponsive to his/her athletes' questions and ideas. A coach who interacts with athletes in an authoritative manner, commanding them to do things through the use of orders, directives, controlling questions and deadlines. A coach who places athletes under constant external pressure by excessively monitoring every aspect of their training session to ensure that every part is carried out as he/she believes it should be. A coach who independently decides on his/her athletes' goals without their input and then pressures athletes to achieve them. A coach who attempts to control what his/her athletes do outside of their sport, for example, who the athlete is friends with.

Controlling behaviour	Explanation	Examples from the sport context
Intimidation behaviours - Verbal abuse - Yelling - Physical punishment - Personal attacks - Humiliating and belittling	The use of power assertive techniques which force athletes to comply with coach expectations and demands.	A coach who says derogatory things to his/her athletes or engages in name-calling. A coach who shouts at athletes to intimidate them into doing the things that he/she wants. A coach who uses the threat of punishment (i.e. press-ups) to push athletes to work harder or keep athletes in line during training. A coach who emphasises athletes' past mistakes or questions their loyalty and commitment to the team. A coach who embarrasses athletes' in front of their peers if they do not do certain things.
Promoting ego-involvement - Competition - Public evaluation - Normative comparisons - Externally-referenced criteria for success	Employing strategies which lead athletes to view their self-worth as contingent upon demonstrating superiority against other athletes.	A coach who sets up training sessions to emphasise competition between his/her athletes. A coach who evaluates the performances of his/her athletes in front of their peers. A coach who makes explicit comparisons between his/her athletes. A coach who focuses solely on winning as a measure of success.
Conditional regard - Positive regard - Negative regard - Negative affect-laden expressions	The provision of attention, affection and support when an athlete displays particular behaviours or attributes (positive regard), and the withdrawal of attention, affection and support when specified behaviours are not displayed (negative regard). The use of guilt-inducing statements which appeal to intrapsychic pressures and are employed to show disappointment.	A coach who focuses more on athletes' when they are performing well and less when they are struggling. A coach who says things to make an athlete feel guilty (e.g. "you have really let me down") when the athlete does not perform well