

# The Role of the Psychological Costs of High Cohesion on Motorsport Team Performance: Exploring the Nature of the Costs

Jennifer Milne

*University of Glasgow, UK*

Pete Coffee

*University of Stirling, UK*

David Lavalley

*Abertay University, UK*

## Abstract

*Cohesion is a multi-dimensional dynamic process, incorporating task and social cohesion, occurring at both the group and personal levels. Cohesion is essential for team harmony and performance. It is universally sought in sport teams. The benefits have been extensively studied and are a requirement of team success. Counter to wide held belief, cohesion is not an intrinsically positive phenomenon. The purpose of this study, part one of a two-part investigation, was to develop understanding of the important psychological costs of high cohesion in motorsport. Fourteen categories of costs were identified from an open questionnaire to 51 motorsport competitors. Sixty-three percent of co-acting motorsport athletes considered there to be disadvantages to high social cohesion. Fifty-nine percent considered there to be disadvantages to high task cohesion. Twenty-nine percent considered there to be disadvantages to a team that was highly task and socially cohesive: the idea of achieving a balance between social and task was considered important. Motorsport competitors perceived similar costs resulting from high social cohesion to participants in other sports. However, high task cohesion was viewed as more problematic than in other sports. Important costs experienced were pressures, both performance and conformity pressures, rigidity and communication issues. These costs inter-relate and give possible mechanisms for high cohesion's complex influence on team performance.*

## Keywords

*Elite, communication, motorsport, pressures, rigidity*

---

## Introduction

Cohesion has been defined as “a dynamic process that is reflected in the tendency for a group to stick together and remain united in the

pursuit of its instrumental objectives and/or for the satisfaction of member affective needs” (Carron, Brawley, & Widmeyer, 1998, p. 213). It is a multi-dimensional dynamic construct incorporating task and social cohesion occurring

at both the group and personal levels (Carron, Widmeyer, & Brawley, 1985; Carron et al., 1998; Carron, Coleman, Wheeler, & Stevens, 2002). This conceptual model is split into four distinct dimensions: Group Integration-Task (GI-T), Individual Attractions to the Group-Task (ATG-T), Group Integration-Social (GI-S), and Individual Attractions to the Group-Social (ATG-S). Task cohesion includes GI-T which is an individual's perceptions of how their team remain united as a group in pursuit of the team goals and ATG-T which is an individual's own full personal involvement as part of that unit in achieving team task goals (Carron et al., 1985; Eys, Loughhead, Bray, & Carron, 2009a). Social cohesion includes GI-S which is an individual's feelings about their team's social unity as a group and ATG-S which is an individual's own personal involvement and fitting in with this group unity (Carron et al., 1985; Eys et al., 2009a). Although each of these four dimensions are conceptually different, in real sport situations task and social cohesion are not clearly distinct entities (Rovio, Eskola, Kozub, Duda, & Lintunen, 2009; Vincer & Loughhead, 2010).

Research evidence has demonstrated how cohesion has a multitude of positive benefits to teams, and the individuals within them, such as increasing collective efficacy (Heuze & Raimbault, 2006), decreasing competitive state anxiety (Eys, Carron, Beauchamp, & Bray, 2003) and increasing amount of time in practice, effort and sticking to training schedules (Carron, Widmeyer, & Brawley, 1988; Prapavessis & Carron, 1997). Cohesion is desirable and crucial for success in sport teams. Some research has shown that high cohesion also brings costs which are experienced by team members and the team, itself.

Buys (1978) proposed that high group cohesion contributed to harmful group processes such as deindividuation and group think. Since then there have been few but notable research papers that have demonstrated negative outcomes

of high cohesion (Apitzsch, 2009; Hoigaard, Safvenbom, & Tonneston, 2006; Paskevich, Estabrooks, Brawley & Carron, 2001; Prapavessis & Carron, 1996; Rovio et al., 2009). The idea that high cohesion results in both psychological benefits and costs was introduced in 1994 in research showing how in highly cohesive teams self-handicapping increased because there was greater pressure not to let valued team mates down (Carron, Prapavessis, & Grove, 1994). This was developed and an experimenter questionnaire generated with a 4-item scale assessing psychological costs, relating to pressure to perform and pressure to conform, in a study examining the relationship between cohesion and competitive state anxiety (Prapavessis & Carron, 1996). A case study of a Finish ice-hockey team over an entire season supported that high cohesion, particularly high social cohesion, may lead to pressure to conform causing harmful group processes such as normative influence and group think (Rovio et al., 2009). In this case study, high social cohesion resulted in pressure to conform and group think which led to a deterioration in performance (Rovio et al., 2009). Both normative (individual team members changing their attitudes to that of the majority to gain or maintain acceptance) and informational (individual accepting majority of team attitude as valid information) influence resulted in group think. These processes of conformity impacted on communication processes within the team so that although the team appeared cohesive and close there was no longer honest or open communication (the captain of the team struggled to give required negative feedback and members of the team did not share opinions but agreed and repeated each other's view points). The group pressure, which was highly subtle and implicit, within this highly cohesive team resulted in deindividuation. This study shows how the cost of high team cohesion, pressure to conform and implicit and subtle negative group processes, can be very costly in

terms of personal and group consequences. This has serious implications for performance.

Similarly, a study examining the role episode model with football players shows how team members in a highly cohesive team can be subtly influenced by others in the decision making process: “Really knowledgeable, good players seem to be really into this . . . so I thought yeah, I should definitely be into this.” Another commented: “People I really respected seemed to enjoy it and buy into it . . . their opinions are valuable to me and when they have thought it has worked in the past so did we as well. So, if they think this new system is going to work, it’s going to work.” (Mellalieu & Juniper, 2010, p.409).

Other research has also indicated that athletes themselves perceive multiple costs to being part of a highly cohesive team (Hardy, Eys, & Carron, 2005). Hardy and colleagues conducted two studies: the first showed that 100% of athletes perceived advantages to both social and task cohesion; the second, which this study replicates and extends, showed that 56% of athletes perceived disadvantages to high social cohesion and 31% perceived disadvantages to high task cohesion.

Motorsport is significantly under-researched in the literature compared to other traditional sports (Filho, Tenenbaum, & Yang, 2015). Motorsport like any sport is unique but similarly some aspects are related to all other sports. Motorsport is particularly applicable to other high-performance group settings (Jenkins, Pasternak, & West, 2009). This research addresses a significant gap in the literature in the representation of elite sport (Benson, Siska, Eys, Priklerova, & Slepicka, 2016). Elite sport performers are defined here as national and international competitors and professional team members (Swann, Moran, & Piggott, 2015).

The specific objective of the study was to answer the following research questions:

1) What is the nature of the perceived costs of high task cohesion, in motorsport, at individual

and group levels? (2) What is the nature of the perceived costs of high social cohesion in motorsport at individual and group level? And, (3) What are the disadvantages to being part of a motorsport team that is both highly task cohesive and highly socially cohesive at individual and group level?

## **Method**

### *Recruitment and Participants*

The specific criteria for initial recruitment for the study were that participants be current members of a co-acting motorsport teams. Sports are described as “interactive” when they require a high degree of interdependence and coordination where those requiring little are described as “co-active”. Most sports vary on a high to low continuum and most involve some elements of both (Eccles & Tennenbaum, 2004). A co-acting motorsport team is a motorsport team where a driver competes for her/himself individually, competes against another driver in her/his same team; the driver also accumulates team points and seeks to have the highest total of points together with team mates to win the team competition. In co-acting motorsport teams, both the actions of individual and their interactions with the other team members - involving high communicative and cognitive demand - are vitally important.

The governing body for 4-wheeled motorsport in the UK, Motor Sport Association (M.S.A), was approached and contacts were developed with a broad section of motorsport organizations across the UK: Scottish Motor Sports, British Rally Championship, Scottish Rally Championship, and Scottish Association of Car Clubs. Various strategies were used to positively publicize the research in order to recruit suitable participants: attending meetings of local motorsport clubs, going into the paddock at race events to speak to team members and liaising with press officers from various sports

and teams. The researcher was actively involved in various worldwide motorsport forums as part of the general background to the research and made contact with the organizers of the Canadian National Rally and various U.S.A. motorsport organizations. Confidentiality was assured to encourage trust and to increase the strength of the research (Kristiansen & Roberts, 2010). Teams were approached and invited to participate in the study. The purpose of the study was clearly outlined and informed consent obtained from all the drivers and riders.

Recruited for the study were 51 motorsport drivers and riders from co-active motorsports: the most frequently cited sports were rallying (n=29) and karting (n=9) with other motorsports including various categories of Touring Cars and Superbikes. There were 44 participants from 4-wheeled motorsport and 7 participants from 2-wheeled motorsport. There was a wide range of competitive levels with a high number of participants competing at elite level: International (15), National (22), Provincial (1), University (5), Club (6), and Recreational (3); one participant did not cite their competitive level. All participants (except 3) were currently members of their respective motorsport teams with the average length of service being 64 months. Age ranged from 18 years to 68 years and the mean age was 36.12 years. There were 47 male participants and four female participants.

### *Measures*

The study replicated and extended the open-ended questionnaire designed by Hardy et al., (2005) with athletes from coactive sports by (a) splitting of the two original questions into four in order to examine personal and group level costs separately and with (b) two additional questions asking if athletes perceive there to be costs, at either or both group and personal levels, in a sport situation incorporating high social and task cohesion. Hardy et al., were able to identify disadvantages of the potential costs with their two

questions on task and social cohesion. Splitting of the questions in this study widened the scope for possible further different costs to be identified and to identify which costs occur at both individual and group level. Hardy and colleagues recommended that a future study should consider the potential costs of team that was both highly task and socially cohesive.

Section 1 of the questionnaire covered demographic information about the motorsport participants. Section 2 gave a concise definition of cohesion: Cohesion means to stay together, to be united, to be unified. It represents the strength of the bond among team members. Scientists usually draw a distinction between social cohesion and task cohesion. Social cohesion is thought to exist when team members get along personally, like each other, and consider one another to be friends. Task cohesion is thought to exist when team members work well together and are in agreement on what and how to achieve team success.

Section 3 was made up of six questions with each pair corresponding to the research questions for this Study: “Do you see any disadvantages to you personally in being a member of a highly task cohesive team?” and “Do you see any disadvantages to the team itself in being a highly task cohesive team?” This corresponded to Research Question 1.

“Do you see any disadvantages to you personally in being a member of a highly socially cohesive team?” and “Do you see any disadvantages to the team itself in being a highly socially cohesive team?” This corresponded to Research Question 2.

“Do you see any disadvantages to you personally in being a member of a team that is both highly socially cohesive and highly task cohesive?” and “Do you see any disadvantages to the team itself in being a team that is both highly socially cohesive and highly task cohesive?” This corresponded to Research Question 3.

These six questions corresponded directly to the six deductive beginning categories within which the meaning units were inductively categorized: 1. GI-T disadvantages, 2. ATG-T disadvantages, 3. GI-S disadvantages, 4. ATG-S disadvantages, 5. Group Level Disadvantages of High Task & Social Cohesion, 6. Individual Level Disadvantages of High Task and High Social Cohesion.

### *Procedure*

A content analysis was employed to organize and categorize the qualitative data set of 160 meaning units into a clear thematic framework (Biddle, Markland, Gilbourne, Chatzisarantis, & Sparkes, 2001; Côté, Salmela, Baria, & Russell, 1993; Patton, 2002). This process has been presented successfully in cohesion research findings (Hardy et al., 2005; Martin, Carron, & Burke, 2009). This approach was directed by theoretical sampling and comparative analysis methodology until theoretical saturation was achieved. We initially used deductive analysis to establish the six beginning categories (Biddle et al., 2001; Eys, Loughhead, Bray, & Carron, 2009b). We then utilized the same interpretational qualitative analysis (IQA) approach—fundamentally an inductive analysis with no pre-decided categories for the data—as has been successfully established in the research literature (Cope, Eys, Beauchamp, Schinke, & Bosselut, 2011; Côté, Salmela, Baria, & Russell, 1993; Côté, Salmela, & Russell, 1995; Scanlan, Ravizza, & Stein, 1989).

### *Data Organization*

Firstly, the data were systematically organized, read, analyzed, re-read in order that the first author was thoroughly familiar with the perceptions of disadvantages from that individual driver perspective and also had a holistic sense of the entire data set (Lally, 2007; Scanlan et al., 1989). Meaningful units or segments of texts were highlighted so that within every

questionnaire every significant segment of information was separated (Cote et al., 1993; Scanlan et al., 1989). The basic unit of analysis (the raw data theme) was defined as the text unit consisting of a quote comprised of a phrase, sentence or paragraph which represents one single disadvantage of high team cohesion (Patton, 2002; Scanlan et al., 1989). There was now a comprehensive list of a set of divided text units representing all the information in the data but such that each individual text unit made sense on its own and contained one idea/item of information (Cote et al., 1993; Tesch, 1990). Beside each of these text units was typed in a general interpretative description describing its topic (i.e., a tag).

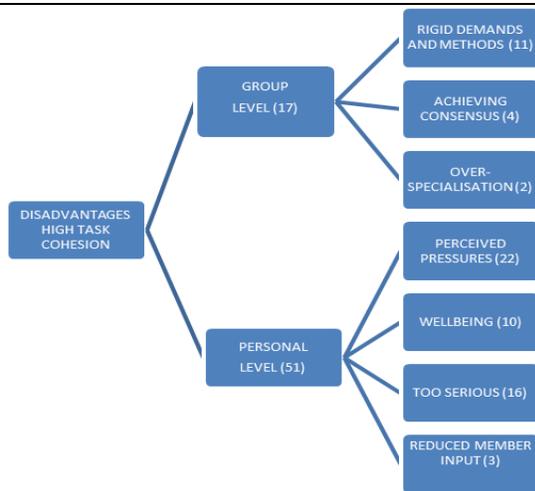
## **Results**

### *Results Research Question 1: Task*

The text units under ‘task’ were read and re-read and each in vivo tag was reconfirmed beside the text by highlighting. There were initially 68 units of text meaning for task. In the data organization process, two text units were moved to the social category, resulting in 66 meaning units for task at this point in the data categorization process. Those text units with same or very similar tags were grouped naturally together resulting in a beginning of categorization within the data on the computer into first order, or sub, themes which are first categories or groups with similar properties (Cote et al., 1993; Lally, 2007; Scanlan et al., 1989a,b).

The list of 66 tagged meaning units was now printed as hard copy and each tagged meaning unit was cut out so the researcher could visually examine all the tagged meaning units and they could be moved around and analyzed. The first analysis resulted in 11 first order categories for the personal level: reduced member input; work-life balance; identity; wellbeing; pressure put on other team members; pressure not to let other team members down; pressure to conform; task

pressure; demands to follow rigid structures straining relationships; demands to task at any cost; reduced personal enjoyment. Unclustered categories were omitted or retained if significant (Eys et al., 2009 a, b; Scanlan et al., 1989b). Continued clustering produced 4 higher order themes at the personal level: pressure (21 units); lack of personal enjoyment (15 units); wellbeing (10 units); and reduced member input (3). The importance is indicated by the number of text units, detail and tone of the comment. For group level disadvantages there were 3 final higher order categories: rigid demands and methods (11), required consensus (4), and over specialization (2). This resulted in a total of 68 meaning units, 50 for personal and 18 for group (see Figure 1).

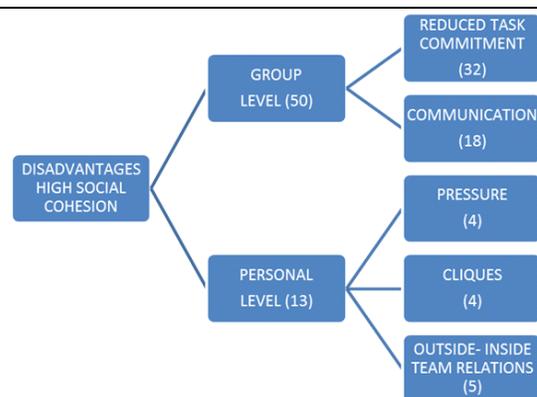


*Figure 1*  
 Athletes' perceptions of the potential costs of high task cohesion  
 Note. Numerical values represent the number of tags corresponding to this category.

*Results Research Question 3: Social*

There were 63 meaning units after the one was removed and added to Task, and one was omitted because it referred to social cohesion across teams rather than within teams. The 63 meaning text units were classified into 50 for group level disadvantages and 13 for personal level disadvantages. At the personal level there were 3

higher order categories: pressures (4), cliques (4) and outside-inside team relationships (5). At the group level there were 2 higher order categories: reduced task commitment and communication. Reduced task commitment was the largest category for the disadvantages of high social cohesion with a total of 32 meaning units. This higher order category was created by clustering reduced task commitment (16), goals (2), lack of professionalism (5), reduced focus (8) and time wasting (1) to result in this higher order category. The other higher order category established at the group level for social cohesion was communication which had a total of 18 meaning units from the clustering of sub-categories communication, compromising hierarchy (3), judgement and decision making (5) and personal tension (3) (see Figure 2).

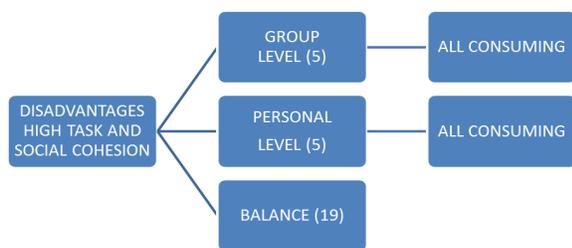


*Figure 2*  
 Athletes' perceptions of the potential costs of high social cohesion  
 Note. Numerical values represent the number of tags corresponding to this category.

*Results Research Question 4: Task and Social*

There were 29 text units related to disadvantages of having both high task and high social cohesion. Participants' perceptions of the disadvantages of having both were mainly focused around the idea of the ensuing problems of maintaining balance and this category had 19 text units. Some participants felt that the correct balance would be less social than task. The main concern was that

the incorrect balance would lead to communication problems or reduced task commitment- group level disadvantages. An additional 3 text units cited a worry that it was impossible to get both high task and social cohesion; the other text units related to this idea saying that both would cause conflict or competition for balance. The data analysis resulted in 1 higher order category at the personal level and 1 at the group level: all consuming (with 5 text units for both) (see Figure 3).



*Figure 3*  
*Athletes' perceptions of the potential costs of high task and social cohesion*  
*Note. Numerical values represent the number of tags corresponding to this category.*

**Analysis and Discussion**

Of the co-acting motorsport athletes surveyed, 63% considered there to be disadvantages to high social cohesion; 59% considered there to be disadvantages to high task cohesion; and, 29% considered there to be disadvantages to a team that was highly task and socially cohesive. The idea of achieving a balance between social and task was considered important.

A majority of drivers and riders reported disadvantages not only to social cohesion but also to task cohesion. In the parallel study by Hardy et al.'s (2005) a similar amount of interactive sport athletes indicated disadvantages to high social cohesion (56%) while this study had a higher percentage of participants perceiving

disadvantages to high task cohesion compared to the 31% in interactive sports. This could be explained, to some extent at least, by the high percentage of more competitive athletes in this study with 72% competing at national or international level compared with less than 1% in Hardy's study. Because in this study the majority of participants were competing at such a high level, and most likely experiencing very high task cohesion, then it seems plausible they could then identify more easily the disadvantages this high-performance environment would create or exacerbate.

It has been suggested that individuals will have different perceptions of cohesion according to their personal make-up e.g. goal orientation, participation motivation or task type (Dion, 2000; Eys et al., 2009a). At very high competition level athletes may be more concerned with their own and team performance, and competition results, rather than the social and friendship element of the team (Kamphoff, Gill, & Huddleston, 2005). Performance pressures will increase: as the performance demand grows the demand to sacrifice yourself for the team and achieve group goals is greater. The results reflect that athletes are more likely to experience- and so perceive- the disadvantages of this environment and group process that are involved in it. Importantly, both this study and Hardy et al.'s (2005) study evidenced that a high number of athletes perceive and experience costs being part of a highly cohesive team. Athletes perceived similar costs.

*Perceived Pressures*

Perceived Pressures, the most frequently cited disadvantage, incorporated an array of general pressures felt personally from being part of a highly task cohesive team as well as the pressure not to let valued team mates down. General pressures ranged from "Pressure of task deadline" -illustrated by this participant's view: "Sometimes it is useful to have your own space as a driver/individual to take everything in. At

times when working in a team, you need to gather your thought and then approach the time when you are ready- sometimes I find myself hassled into decisions as the team need to press on”; to “Financial pressure- failure or mistake will have a big impact on the season” and even “Pressure to pursue the team activity (i.e. to spend money, time or effort that may be in relatively limited supply) as opposed to other (non-sport related) competing interests in order to not feel like one is letting down the team.” This excess of responsibility is a strong psychological cost: the more highly cohesive the team, the more the perceived pressure to fulfill expectations of other team members and sacrifice for the team.

The importance of this category is demonstrated in the strength of, and the emotional tone evident in, some of the comments made by the team members who felt that “The pressure to perform is omnipresent”, “If you screw up the task, you have let the others down” and “If someone is seen to have let the team down, that person is not going to feel very good.” This category also represents the contradiction of how in a highly task cohesive team individuals perceive the pressure on themselves a great disadvantage, yet are aware of simultaneously being the ones creating that very same pressure for other members of the team: “Once you have lived the performance levels that can only be reached through task cohesive, you tend to want to excel in that way elsewhere, but, alas, task cohesive can only be achieved with a few people and so sometimes I end up “putting the bar too high” for others or newly formed teams.”

Pressure to perform was similarly the most frequently cited disadvantage to high cohesion in the study of interactive sports even though the participants in that study were less competitive level athletes than in this study (Hardy et al., 2005). Pressure to perform would most likely increase at higher competitive levels but would depend on a multitude of internal and external factors and is evident across all levels and across

all sporting disciplines: “Motor racing is one of the most physically and mentally challenging of all sports, not only for racing drivers themselves, but also for the teams that play an integral role in the eventual performance of the car. ... Drivers and teams are faced with continuous pressure to perform ...” (Klarica, 2001, p.290).

A body of work has demonstrated that when athletes live their lives around, and gain value and meaning from, only performance outcomes there can be serious negative repercussions for long term psychological wellbeing (Carless & Douglas, 2012). Some participants felt that pressure exerted upon team members within a highly task cohesive team would be increased in a highly socially cohesive team: “You are not only letting the team down if you mess up but letting friends down. It adds to the pressure!” Perceived pressure was the most frequently cited cost. This is a cost of high task cohesion and a cost of high social cohesion.

As well as pressure to perform, pressure appears within a highly task cohesive team in the guise of pressure to conform. Cohesion implies by its very definition of “sticking together” a conformity. This may be pressure to conform to group norms: “I enjoy talking about cars and sport, and how to make the team better, but sometimes I want to talk politics and that can be dangerous when you realize you have no idea whether the guy you have been working with for four years on the team is a raging Commie or a hardcore conservative, And in a professional environment, it’s worth being mindful that the consequences of an argument over that sort of thing can be damaging to team operations.” Group norms may be formal or informal, and pressure may be implicit or explicit - or both- on team members. “... the greater the cohesiveness of the group, the greater the amount of pressure that can be brought to bear on the individual to conform to group norms...” (Patterson, Carron, & Loughhead, 2005).

Motorsport athletes in this study cited pressures to conform as personal costs of being part of a highly cohesive team similarly to football players who were swayed on decision making by their teammates' opinions (Mellalieu & Juniper, 2010). These pressures through impacting on group processes such as communication and decision making could potentially have a negative impact on performance. Pressure to conform is strongly related to the group level cost of rigid demands and methods.

#### *Rigid Demands and Methods*

Rigid Demands and Methods was a new category identified for high task cohesion. A high percentage of the respondents compete at national and/or international level motorsport where the team structure and organization is very hierarchical, more so than many other sports. Rigid demands and methods are usually evident – and some would argue necessary for success- in this type of sporting environment. However, with this being the most cited group level disadvantage of high task cohesion, motorsport co-acting team members also perceive such an environment with high task cohesion to produce disadvantages. A concern was that in a highly task cohesive team “People only focus on the goal” and “... it is very demanding at times and rules and regulations have to be followed exactly otherwise the team does not work smoothly.”

The category also reflects demands to achieve the task for the team at any cost: “You then look for other ways to get round problems, i.e. illegal servicing, co-driver tactics etc.” This is a cause for concern particularly for a team that is both highly task cohesive and highly social cohesive where a tendency toward deindividuated behavior would be increased.

Furthermore it was felt high task cohesion reduced creative input by team members which meant that there was “Potential for missing something that may be found by somebody

thinking ‘outside the box’ that is not integral to the team” so that “Often the team can be narrow minded in situations where there is multiple causes to a problem or multiple solutions.” As one driver explained:

“I have raced for a team that did not work well together, but problem solving was sometimes achieved through arguments, team members were challenging each other to find the problem rather than working on it together. As odd as it sounds, this often worked better than if they were to work together on the issue.” This participant is emphasizing how high cohesion results in team members potentially glossing over challenges in attempt to maintain cohesion and avoid conflict. In avoiding conflict there can be a failure to address problematic issues. Conflict avoidance is not necessarily a good thing. Conflict is under researched in sport groups (Martin, Bruner, Eys, & Spink, 2014).

The theory of transformational leadership has gained increasing attention and support in the recent sports research. Transformational leadership is a model of how leaders inspire followers towards team goals through inspirational motivation, role modelling, high expectations, intellectual stimulation, individual consideration and fostering of group goals (Bass & Riggio, 2006). Research on transformational leadership has established that conflict is not always detrimental. Conflict can stimulate team members to consider differing opinions. This can encourage new problem-solving strategies and creative thinking in decision making processes which can be beneficial and lead to better team performance (Dionne & Yammarino, 2004).

The system of rigid demands and methods in a highly task cohesive team encourages uniformity and conflict avoidance. It is a system which curbs creative thinking and is a strong disadvantage at the group level with all respondents who cited this disadvantage seeing it as being damaging to the team because it means

that the team don't always get the "better solution."

This study highlighted that high task cohesion discouraged individual creativity particularly in problem solving processes which would possibly negatively impact on performance long term. Some other research on transformational leadership has indicated that individual consideration predicts high task cohesion particularly in a high-performance environment (Callow, Smith, Hardy, Arthur, & Hardy, 2009). If a highly task cohesive team then neglects individuality and individual values within the team the resulting costs will have varied consequences including with collaborative problem solving, particularly in the maintenance stage of the cohesion process. Individuals in a highly cohesive team may not be open to change such as within the wider organization, system changes or new members joining, and may also not question current ways of working which prevents forward thinking and forward movement in a team. This category is strongly related to pressure to conform.

#### *Communication*

The relationship between cohesion and communication is complex. Communication is a key part of any team-building process to increase cohesion and effective communication has been identified as both an antecedent to and consequence of high cohesion within a team (Dunn & Holt, 2004; Fletcher & Wagstaff, 2009; Williams & Widmeyer, 1991; Yukelson, 1997). However, despite the evidence for this reciprocated positive relationship, athletes themselves perceive that high cohesion can disrupt communication in both this study and in the study by Hardy and colleagues (2005). The results of this study strongly indicated that this ease of communication, or overfamiliarity, in a highly socially cohesive team is not always a positive thing:

"My sister and I have probably never had as much communication as we have had in our rallying over the last few years. This does help to grow our personal relationship as well, but we still continue to have a 'bickering' sibling relationship even with the team. I tend to listen to Kelly very well while in the car, but outside of the car in the service area I think I know the answers! When perhaps I should be listening to her there as well. In any normal rally environment, the co-driver would have final say on prep times, rule challenges, etc. In our team, it is much more of a shared activity because we are doing it as a family and I feel I have the upper hand on my sister with planning and execution of strategy. This is one area where our social cohesion challenges the ability for us to complete our tasks effectively."

A team may have high volume communication, but it is not necessarily positive constructive communication. Also it was felt that a highly socially cohesive team may avoid conflict and so prevent conflict resolution: "When mistakes are made team mates can be too close to deliver important messages in a sufficient firm manner to the person responsible for the mistake- we're not honest enough with each other." Other pertinent representative comments were that it is "difficult to criticize a team mate" who is a close friend or "to tell someone they aren't pulling their weight if you are socially involved". If cohesion determines a consensus and lack of conflict it may become detrimental because "constructive conflict and constructive conflict management are associated with higher cohesion and performance" (Sullivan & Feltz, 2001). It would appear that high cohesion can result in avoidance of constructive and creative problem-solving communication within a team which will have repercussions then for the cohesion process itself and for the team. A study with a top-level European football team supports the idea that cohesion reaches a point when it may

become detrimental (Montari, Silvestri, & Gallo, 2008). Perceived pressures and particularly the implicit mechanism of pressure to conform impact on group communication through processes of group think and group polarization. One participant admitted that high team social cohesion could also result in explicit pressure being put on others in the team that would compromise communication: "If you are not keen on a certain idea you may try and influence the team which could affect how the team work together."

High social cohesion was further viewed potentially as disadvantageous because of its effect on the decision-making processes in the team, particularly within a hierarchical team structure, where often drivers/riders are also team managers or owners, disrupting effective communication: "Personal feelings can cloud your judgements" and "prevent a team member making a sound decision based on the success of the team."

It had previously been hypothesized that cohesion might affect performance through its effects on communication- but there is still limited research exploring this relationship (Eccles & Tenenbaum, 2004). Several studies, both qualitative and quantitative, have used Kahn's Role Episode Model of the processes of communication and in particular the influence of interpersonal relations, formal and informal structures and interactions within the team perspective, to show the relationship between cohesion, particularly task, and roles: with high task cohesion being related to high clarity in roles (as well as role acceptance and performance) and low task cohesion being related to increased role ambiguity (Bosselut, Heuze & Sarrazin, 2010; Bosselut, McLaren, Eys, & Heuzé, 2012; Eys & Carron, 2001; Eys et al., 2003; Mellalieu & Juniper, 2006).

The direction of the relationship between roles and cohesion is not clear and although not directly examining the communication-cohesion

relationship, research supports the idea that high task cohesion would be a result and consequence of effective communication and would increase performance but that high social cohesion might negatively influence this relationship through the mediating influence of the variable of communication. There has been limited research with elite sport teams (Fletcher & Wagstaff, 2009). It is yet unclear how informal roles influence, and are influenced by, cohesion (Cope et al., 2011).

### *Balance*

Most team building interventions aim to increase both task and social cohesion and an increase in one is hoped to increase the other. This is the first study which has sought to generate athlete response to potential disadvantages that result from being part of a highly social and task cohesive team: and so give a more rounded and realistic picture of the psychological costs due to the interactive nature of social and task cohesion in real life situations (Hardy et al., 2005). Motorsport athletes felt the main disadvantages of high social and task cohesive team within a team was the imbalance. Although some respondents felt that high task and social cohesion would be the "ideal balance", many felt there was "a constant conflict" and that "it is hard to achieve both in a team." Several competitors viewed that this desired balance would be less social cohesion than task cohesion. They reiterated the disadvantages that would result if there wasn't balance but social cohesion was higher than task cohesion. These were all group level disadvantages with 3 being communication and 3 being reduced task commitment. A strong idea was that a highly socially and task cohesive team became all consuming. It can turn in on itself because it becomes "too insular and potentially self-destruct as a result; small things become big things." This is supported by the case study of an ice-hockey team over a season, high social cohesion was

shown to produce normative and informational influence to such an extent that task communication was not effective or productive and team members did not have a realistic or true perception of their actual performance: they had become locked in and insular (Rovio et al., 2009). Particularly noteworthy was the idea that the combined high cohesion could “lead to an over-confidence in the team’s abilities.” In Rovio et al.’s (2009) study an over-confidence was part of this insular locked-in thinking and behavior pattern which was a result of high cohesion. Cohesion has been proposed as both an antecedent and consequence of collective efficacy (Zaccaro, Blair, Peterson, & Zazanis, 1995). Perceptions of cohesion have been shown to increase collective efficacy (Heuze & Raimbault, 2006; Heuze et al., 2006). It could be that a team that has very high social and task cohesion may be susceptible to an increase in collective efficacy to such an extent that this leads to an over-confidence which could then be detrimental to team processes and performance. Research has indicated that individual team members usually evaluate fellow group members more positively than members out with the group (Lewis & Sherman, 2010). The all-consuming nature of a highly task and socially cohesive team, which is often sought as the ideal team scenario, must be further examined to consider impact at group as well as personal level. This study has made clear that it is not a “perfect” scenario and there are costs of being a team that is both highly task and highly socially cohesive.

## **Conclusion**

The 14 categories of costs identified support previous research. Motorsport performers perceive similar costs regardless of performance level and gender. Pressure to perform should be considered as a separate category to pressure to conform. Rigid demands and methods should be considered a separate but related category to

pressure to conform. Rigid demands and methods is more evident and more problematic in high performance teams. High cohesion works to maintain harmony and avoid conflict: potentially resulting in decreased problem solving and hampering of effective communication. This is a clear mechanism under which high cohesion could potentially have a detrimental impact on performance.

## *Limitations and Future Research*

Participants were mainly a homogeneous sample of high-performance male athletes in contact with motorsport. These athletes generated similar costs to a mainly female recreational sample (Hardy et al., 2005). This research has supported previous research and built up evidence of which of the costs are important and need to be examined further: pressures, rigid demands and methods, communication issues. This study has identified mechanisms whereby these costs, which are interactive processes that are influenced by a multitude of other factors, could impact on performance both positively and negatively. Therefore, future studies should examine how these costs impact upon performance.

## *Implications*

Motorsport teams must continue to value and seek high cohesion, and all the benefits it brings, but should also be aware of the potential costs or disadvantage of high cohesion. Of salience to high performing motorsport teams are the costs of rigidity and pressures. Teams should monitor their structures of rigid demands and methods with increased communication: and seek to ensure conflict approach strategies within communication policy and practice. Team leaders should proactively seek feedback around team members feeling valued and listened to, they should encourage creative problem solving and individual goal setting, along with team goals, as part of a wider team framework. A balance of task

and social cohesion are optimal. Awareness and monitoring of team cohesion and the ability of team to communicate honestly and openly around this are key to success.

## References

- Apitzsch, E. (2009). A case study of a collapsing handball team. In S. Jern and J. Naslund (Eds.), *Dynamics within and outside the lab* (pp. 35-52). Linköping: LiU-Tryck.
- Benson, A.J., Siska, P., Eys, M., Priklerova, S., & Slepicka, P. (2016). A prospective multilevel examination of the relationship between cohesion and team performance in elite youth sport. *Psychology of Sport and Exercise, 27*, 39-46. doi:10.1016/j.psychsport.2016.07.009
- Biddle, S. J .H, Markland, D., Gilbourne, D., Chatzisarantis, N. L. D., & Sparkes, A.C. (2001). Research methods in sport and exercise psychology: quantitative and qualitative issues. *Journal of Sport Sciences, 19*, 777- 809. doi:10.1080/026404101317015438
- Bosselut, G., Heuzé, J. P., & Sarrazin, P. (2010). Structure of the role ambiguity framework and validity in the French culture. *Psychology of Sport and Exercise, 11*(6), 471- 478. doi: 10.1016/j.psychsport.2010.06.001
- Buys, C. J. (1978). Humans would do better without groups. *Personality and Social Psychology Bulletin, 4*, 123-125. doi: 10.1177/014616727800400126
- Hardy, J. T., Hardy, L. J., Callow, N., Smith, M. J., Hardy, L., Arthur, C. A., & Hardy, J. (2009). Measurement of Transformational Leadership and its Relationship with Team Cohesion and Performance Level. *Journal of Applied Sport Psychology, 21*(4), 395-412. doi:10.1080/10413200903204754
- Carless, D., & Douglas, K. (2012). “In the Boat” but “Selling Myself Short”: Stories, narratives, and identity development in elite sport. *The Sport Psychologist, 27*, 27 -39. doi:10.1123/tsp.27.1.27
- Carron, A.V., Brawley, L.R., & Widmeyer, W.N. (1998). Measurement of cohesion in sport and exercise. In J.L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 213-226). Morgantown, WV Fitness Information Technology.
- Carron, A.V., Widmeyer, W.N., & Brawley, L.R. (1985). The development of an instrument to assess cohesion in sport teams: The Group Environment Questionnaire. *Journal of Sport Psychology, 7*, 244–266. doi:10.1123/jsp.7.3.244
- Carron, A. V., Widmeyer, W. N., & Brawley, L. R. (1988). Group cohesion and individual adherence to physical activity. *Journal of Sport & Exercise Psychology, 10*, 127-138. doi:10.1123/jsep.10.2.127
- Carron, A.V., Prapavessis, H., & Grove, R.J. (1994). Group effects and self-handicapping. *Journal of Sport & Exercise Psychology, 16*, 246-257. doi:10.1123/jsep.16.3.246
- Carron, A.V., Colman, M.M., Wheeler, J., & Stevens, D. (2002). Cohesion and performance in sport: A meta-analysis. *Journal of Sport & Exercise Psychology, 24*, 168-188. doi: 10.1123/jsep.24.2.168
- Cope, C.J., Eys, M.A., Beauchamp, M.R., Schinke, R.J., & Bosselut, G. (2011). Informal roles on sport teams. *International Journal of Sport and Exercise Psychology, 9*(1), 19-30. doi: 10.1080/1612197X.2011.563124
- Côté, J., Salmela, J.H., Baria, A., & Russell, S.J. (1993). Organizing and interpreting unstructured qualitative data. *The Sport Psychologist, 7*, 127–137. doi:10.1123/tsp.7.2.127
- Côté, J., Salmela, J. H., & Russell, S. (1995). The knowledge of high performance gymnastic coaches: Methodological framework. *The Sport Psychologist, 9*, 65-75. doi: 10.1123/tsp.9.1.65
- Dion, K.L. (2000). Group cohesion: From “field of forces” to multidimensional construct. *Group Dynamics: Theory, Research, and Practice, 4*, 7–26. doi:10.1037/1089-2699.4.1.7
- Dionne, S.D., & Yammarino, F.J. (2004). Transformational leadership and team performance. *Journal of Organizational Change Management, 17*(2), 177-193. doi: 10.1108/09534810410530601
- Dunn, J. & Holt, N. (2004). A qualitative investigation of a personal-disclosure

- mutual-sharing team building activity. *The Sport Psychologist*, 18, 363–380. doi:10.1123/tsp.18.4.363
- Eccles, D.W., & Tenenbaum, G. (2004). Why an expert team is more than a team of experts: a social-cognitive conceptualization of team coordination and communication in sport. *Journal of Sport & Exercise Psychology*, 24, 542-566. doi:10.1123/jsep.26.4.542
- Eys, M.A., Loughhead, T.M., Bray, S.R., & Carron, A.V. (2009a). Perceptions of cohesion by youth sport participants. *The Sport Psychologist*, 23, 330-345. doi:10.1123/tsp.23.3.330
- Eys, M. A., Loughhead, T. M., Bray, S. R., & Carron, A. V. (2009b). Development of a cohesion questionnaire for youth: The Youth Sport Environment Questionnaire. *Journal of Sport & Exercise Psychology*, 31, 390-408. doi: 10.1123/jsep.31.3.390
- Eys, M. A., Carron, A. V., Beauchamp, M. R., & Bray, S. R. (2003). Role ambiguity in sport teams. *Journal of Sport & Exercise Psychology*, 25, 534-550. doi:10.1123/jsep.25.4.534
- Filho, E., Tenenbaum, G. and Yang, Y. (2015). Cohesion, team mental models, and collective efficacy: towards an integrated framework of team dynamics in sport. *Journal of Sport Sciences*, 33, 641-653. doi:10.1080/02640414.2014.957714
- Fletcher, D, & Wagstaff, C., (2009). Organizational Psychology in Elite Sport; Its emergence, application, and future. *Psychology of Sport and Exercise*, 4, 427-434.
- Hardy, J., Eys, M.A., & Carron, A.V. (2005). Exploring the potential disadvantages of high cohesion in sport teams. *Small Group Research*, 36, 166-187. doi:10.1177/1046496404266715
- Heuze, J.P. & Raimbault, N. (2006). Relationships between cohesion, collective efficacy and performance in professional basketball teams: an examination of mediating effects. *Journal of Sport Sciences*, 24, 59-68. doi:1080/02640410500127736
- Hoigaard, R., Safvenbom, R. and Tonneston, F.E. (2006). The relationship between group cohesion, group norms and perceived social loafing in soccer teams. *Small Group Research*, 37, 217-232. doi: 10.1177/1046496406287311
- Jenkins, M., Pasternak, K., & West, R. (2009). *Performance at the limit. Business lessons from Formula 1 Motor Racing*. Cambridge University Press.
- Kamphoff, C.S., Gill, D.L. & Huddleston, S. (2005). Jealousy in sport: Exploring jealousy's relationship to cohesion. *Journal of Applied Sport Psychology*, 17, 290-305. doi: 10.1080/10413200500313578
- Klarica, A, J. (2001). Performance in motor sports. *British Journal of Sports Medicine*, 35, 290-291.
- Lally, P. (2007). Identity and athletic retirement: a prospective study. *Psychology of Sport and Exercise*, 8, 85-99. doi: 10.1016/j.psychsport.2006.03.003
- Lewis, A.C. & Serman, S.J. (2010). Perceived entitativity and the black-sheep effect: when will we denigrate negative ingroup members? *Journal of Social Psychology*, 150(2), 211-225.
- Martin, L. J., Bruner, M., Eys, M. A., & Spink, K. (2014). The social environment in sport: Selected topics. *International Review of Sport and Exercise Psychology*, 7, 87–105.
- Martin, L.J., Carron, A.V., & Burke, S.M. (2009). Team building interventions in sport: a meta-analysis. *Sport and Exercise Psychology Review*, 5(2), 3-18.
- Mellalieu, S.D. & Juniper, S.W. (2006). A qualitative investigation into experiences of the role episode in soccer. *The Sport Psychologist*, 20, 399-418. doi: 10.1123/tsp.20.4.399
- Montari, F., Silvestri, G., & Gallo, E. (2008). Team performance between change and stability: the case of the Italian ‘Serie A.’ *Journal of Sport Management*, 22(6), 701-716.
- Paskevich, D.M., Estabrooks, P.A., Brawley, L.R., & Carron, A.V. (2001). Group cohesion in sport and exercise. In R.N. Singer, H.A. Hausenblas, & C.M. Janelle, (Eds.). *Handbook of sport psychology* (pp.472-494.) New York: Wiley.
- Patterson, Carron, & Loughhead. (2005). The influence of team norms on the cohesion-self reported performance relationship: a multi-level analysis. *Psychology of Sport and*

- Exercise*, 6, 479-493. doi: 10.1016/j.psychsport.2004.04.004
- Patton, M.Q. (2002). *Qualitative research and education methods (3rd ed.)*. Newbury Park, CA: Sage.
- Prapevessis, H. & Carron, A.V. (1997). Sacrifice, cohesion, and conformity to norms in sport teams. *Group Dynamics: Theory, Research and Practice*, 1, 231-240. doi:10.1037/1089-2699.1.3.231
- Prapevessis, H. & Carron, A.V. (1996). The effect of group cohesion on competitive state anxiety. *Journal of Sport & Exercise Psychology*, 18, 64-74. doi:10.1123/jsep.18.1.64
- Rovio, E., Eskola, J., Kozub, S.A., Duda, J.L., & Lintunen, T. (2009). Can high group cohesion be harmful? A case study of a junior ice-hockey team. *Small Group Research*, 40, 421-435. doi:10.1177/1046496409334359
- Scanlan, T. K., Ravizza, K., & Stein, G.L. (1989). An in-depth study of former elite figure skaters. *Journal of Sport & Exercise Psychology*, 11, 54-65. doi:10.1123/jsep.11.1.54
- Sullivan, P. J., & Feltz, D. L. (2001). The relationship between intrateam conflict and cohesion within hockey teams. *Small Group Research*, 32, 342-355. doi:10.1177/104649640103200304
- Swann, C., Moran, A., & Piggott, D. (2015). Defining elite athletes: Issues in the study of expert performance in sport psychology. *Psychology of Sport and Exercise*, 16, 3 -14. doi:10.1016/j.psychsport.2014.07.004
- Tesch, R. (1990). *Qualitative research analysis types and software tools*. New York: Falmer.
- Vincer, D.J.E. & Loughhead, T.M. (2010). The relationship among athlete leadership behaviours and cohesion in team sports. *The Sport Psychologist*, 24, 448-467. doi:10.1123/tsp.24.4.448
- Williams, J. M., & Widmeyer, W. N. (1991). The cohesion-performance outcome relationship in a coaching sport. *Journal of Sport & Exercise Psychology*, 13, 364-371. doi:10.1123/jsep.13.4.364
- Yukelson, D. (1997). Principles of effective team building interventions in sport: A direct services approach at Penn State University. *Journal of Applied Sport Psychology*, 9, 73 - 96.
- Zaccaro, S. J., Blair, V., Peterson, C., & Zazanis, M. (1995). Collective efficacy. In J. E. Maddux (Ed.), *Self-efficacy, adaptation, and adjustment: Theory, research, and application* (pp. 305-328). New York: Plenum Press.