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Consequences of Teammate Moral Behaviour:
Linking Team Moral Norms with Cohesion and Collective Efficacy

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Abstract

Although researchers have investigated underlying correlates of moral behaviour in sport, research into the consequences of teammate moral behaviour on team dynamics has been neglected. To address this issue, we examined whether perceived team moral norms (i.e., prosocial behaviour toward teammate norms; prosocial behaviour toward opponent norms; antisocial behaviour toward teammate norms; antisocial behaviour toward opponent norms) were associated with collective efficacy directly and indirectly via cohesion (i.e., task cohesion and social cohesion). We found that prosocial behaviour toward teammate norms was positively associated with cohesion and collective efficacy. Moreover, prosocial behaviour toward teammate norms was indirectly associated with collective efficacy via task cohesion, but not social cohesion. Antisocial behaviour toward teammate norms was negatively associated with cohesion and collective efficacy. Prosocial and antisocial behaviour toward opponent norms did not predict either cohesion or collective efficacy. Taken together, these findings provide novel evidence for the relationships between moral behaviour and team dynamics, which could have implications on team performance.

Key words: antisocial behaviour, group dynamics, performance, prosocial behaviour

Consequences of Teammate Moral Behaviour: Linking Team Moral Norms with Cohesion and Collective Efficacy

For some sport participants, provoking, retaliating and diving to confuse the referee are examples of behaviour that can be considered as acceptable and part of the game. For others, fair play and sportpersonship should prevail over just winning or losing. Undeniably, sport has a relevant moral dimension to which scientific research has dedicated considerable efforts (see Kavussanu, 2008; Kavussanu & Stanger, 2017). Although significant progress has been made on understanding relevant correlates underpinning moral behaviours in sport, barely any research has investigated the consequences of these types of behaviours, or considered how morally relevant behaviours in sport are associated with intra-team functioning which may have implications on performance (e.g., Kavussanu & Stanger, 2017). The present research attempted to address this gap in the literature.

Moral Behaviour in Sport

Moral behaviours are prevalent in sport and commonly seen in medium-to-high contact team sports where interactions with teammates and opponents is unavoidable and can create the potential for moral issues to be raised (Kavussanu, 2008). Bandura's (1991) social cognitive theory of moral thought and action has been a theoretical framework that has guided considerable research on moral behaviour in sport. According to Bandura (1991), individuals develop moral standards from a variety of influences such as modelling and through interactions with others. In essence, the social environment can influence an individual's behaviour and the individual can also influence the environment. These moral standards regulate behaviour via anticipated evaluative self-reactions. Thus, individuals tend to behave in ways that will give them satisfaction (i.e., acting according to their moral standards) and refrain from engaging in behaviour that could bring them self-disapproval (i.e., violating their moral standards). Bandura (1991) emphasized the relevance of moral

behaviour since it can have direct consequences on the recipient's physical and psychological well-being.

Bandura (1999) introduced the terms proactive and inhibitive morality whereby proactive morality is manifested in the power to behave humanely, and inhibitive morality is manifested in the power to refrain from behaving inhumanely. These two terms have been broadly referred to reflect prosocial and (lack of) antisocial behaviour, respectively, in sport. Prosocial behaviour is a voluntary action intended to help or benefit other people (Eisenberg & Fabes, 1998). Examples in sport include encouraging a team member or helping an opponent off the floor. On the other hand, antisocial behaviour is an intentional act aimed to harm or disadvantage another individual (Sage, Kavussanu, & Duda, 2006), such as verbally abusing a teammate, trying to injure an opponent, and cheating. Researchers have examined a diverse set of variables that could influence athletes' moral action in sport (see Kavussanu, 2008; Kavussanu & Stanger, 2017). However, despite scholars highlighting the importance of focusing on moral behaviours because they have implications on the recipients' welfare and well-being (e.g., injury and psychological distress), little research has investigated the consequences of moral behaviour in sport (e.g., Kavussanu & Stanger, 2017).

A variable that has provided an indication about how teammates' morality can influence the recipient's behaviour is moral atmosphere; described as a shared understanding of what is appropriate and inappropriate behaviour based upon the interactions among the members of a group (e.g., Power, Higgins, & Kohlberg, 1989). Previous research has shown that a perceived moral atmosphere that approves of antisocial behaviours towards others was positively associated with likelihood to behave aggressively in sport (e.g., Stephens & Bredemeier, 1996) and bullying (Steinfeldt, Vaughan, LaFollette, & Steinfeldt, 2012). However, moral atmosphere in sport has been operationalized to reflect people's perceptions of how other members of a team will judge or respond to specific behaviours, thereby

representing perceived approval or disapproval of behaviour rather than perceived behaviour of team members (e.g., Benson, Bruner, & Eys, 2017). Recently, to understand consequences of teammates' moral behaviour, researchers have measured players reported frequency that their teammates engage in antisocial and/ or prosocial behaviours (e.g., Benson et al., 2017). From a social identity perspective, this has been suggested to reflect perceived descriptive group norms, which refers to how individuals construe the behaviours of other group members (e.g., Cialdini, Reno, & Kallgren, 1990). Therefore, similar to recent research (Benson et al., 2017), we refer to players' interpretation of the frequency of their teammates' moral behaviours to indicate their (perceived) team moral norms.

Recently, researchers found that when players perceived moral norms where teammates engage in antisocial behaviours towards one another, this was associated with the players personally engaging in more frequent antisocial behaviour towards their teammates (Benson et al., 2017). However, researchers have neglected to examine whether team moral norms reflected by the moral behaviour committed by teammates towards both teammates and opponents are associated with factors that could influence the recipients' performance.

To our knowledge, only one study has been conducted which has investigated the consequences that teammate moral behaviours have on the recipients' performance. Al-Yaaribi, Kavussanu, and Ring (2016) investigated whether the frequency that players perceived their teammates engaged in prosocial and antisocial behaviours towards them during a match were associated with the player's enjoyment, effort, anger, perceived performance and commitment during the match. They found that prosocial teammate behavior was associated with higher enjoyment, effort, perceived performance and commitment from the recipient. In contrast, antisocial teammate behaviour was positively associated with recipients' anger, and negatively associated with recipients' effort and

perceived performance. These findings provide preliminary evidence for the potential benefits of behaving prosocially and not antisocially in relation to performance.

It should be noted that Al-Yaaribi and colleagues (2016) investigated relationships between behaviors towards the recipient and the recipients' performance during one match. Team moral norms would be expected to reflect behaviours from team members over an extended temporal period, and team performance may be more than simply the sum of individual efforts and performance, and likely dependent on complex interpersonal interactions. Two variables that can act as an index of intra-team interpersonal functioning that may help facilitate performance in team sport are collective efficacy and cohesion (Carron, Bray, & Eys, 2002). Similar to team moral norms, collective efficacy and cohesion result from interactions among the members of a group. As morally relevant behaviours can have direct positive and negative consequences on recipients' physical and psychological welfare, it is possible that team moral norms could be associated with cohesion and efficacy in teams.

Collective Efficacy

Bandura's (1997) self-efficacy theory provides the foundations for the construct of collective efficacy, which refers to a "group's shared belief in its conjoint capability to organize and execute the courses of action required to produce given levels of attainment" (p. 477). Though collective efficacy is rooted in self-efficacy, collective efficacy depicts the teams' confidence in the ability to collectively complete a task successfully relevant to a specific goal or criteria (Short, Sullivan, & Feltz, 2005). Researchers have highlighted that collective efficacy in sport reflects perceptions of the teams' ability to demonstrate the skills to compete successfully against opponents(s), exert continued effort and motivation as well as persist when facing obstacles, demonstrate unity and effective communication, and be suitably prepared to succeed in competition (e.g., Paskevich, Brawley, Dorsch, & Widmeyer,

1999; Short et al., 2005). It is expected that the higher the perceived collective efficacy the more beneficial this will be for performance accomplishments. Accordingly, researchers have found that collective efficacy was positively associated with performance across a range of sports (e.g., Myers, Feltz, & Short, 2004; Myers, Payment, & Feltz, 2004), and athletes from successful teams seem to report higher collective efficacy than less successful teams (e.g., Ramzaninezhad, Keshtan, Shahamat, & Kordshooli, 2009).

It has been suggested that there are range of sources of collective efficacy including prior performance, vicarious experiences, verbal persuasion, cohesion, group size, and group leadership (e.g., Bandura, 1997; Carron & Hausenblas, 1998). Based on these propositions, prosocial behaviour towards teammate norms (i.e., where players frequently observe teammates engaging in prosocial behaviour towards one another), such as congratulating teammates for good play and providing encouragement and constructive criticism could provide examples of promoting efficacy through verbal persuasion and acknowledgement of successful prior performance. In contrast, antisocial behaviour toward teammate norms (i.e., where players frequently observe teammates engaging in antisocial behaviour towards one another) where behaviours such as verbally abusing and criticizing teammates could be interpreted as being unsupportive and potentially hinder collective efficacy. Moreover, such antisocial behaviours may represent interpersonal incompatibility and disagreement amongst members which could result in team conflict. Although conflict can sometimes be beneficial for group performance to help with decision making and address problems or ineffectiveness when they may exist (e.g., Schulz-Hardt, Mayer, & Frey, 2002), if teams are chronically in conflict this can reduce the likelihood of group satisfaction and achieving their objectives (e.g., Wall & Callister, 1995). Accordingly, previous research has shown that team conflict was negatively and strongly associated with team performance (e.g., De Dreu & Weingart, 2003), and that team conflict in sport teams was a significant negative predictor of changes in

collective efficacy over time (i.e., over 3 seasons; (Leo, González, Sánchez, Ivarsson, & García, 2015). Therefore, it appears plausible that prosocial behaviour toward teammate norms, which is characterized by more frequent prosocial interactions, would be positively associated with collective efficacy whereas antisocial behaviour toward teammate norms may be associated with lower collective efficacy. However, research has yet to investigate these possibilities.

Cohesion

A variable that moral norms could influence, which may also account for relationships with collective efficacy, is team cohesion. 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 for the satisfaction of member affective needs” (Carron, 1982; p.124). Carron, Widmeyer, and Brawley (1985) developed a conceptual model of cohesion that consists of four dimensions based on two levels of distinction: task cohesion and social cohesion as well as group integration and individual attractions to the group. Group integration reflects a member’s perceived closeness, similarity and bonding within the group, whereas individual attractions to the group reflects personal feelings to remain in the group and personal involvement with other group members. Both of which can be focused around task or social aspects. Task cohesion reflects the perception of unity possessed by a group in relation to achieving tasks (e.g., reaching a sporting goal), whereas social cohesion reflects the perceptions of the group in relation to social relationships (e.g., friends on the team) (e.g., Carron et al., 1985). Therefore, four dimensions exist; namely, individual attractions to the group-social, individual attractions to the group-task, group integration-social, and group integration-task.

Cohesion has been associated with successful performance in a number of studies (Carron, et al., 2002; Ramzaninezhad et al., 2009). Moreover, meta-analytic reviews have

revealed positive moderate-to-strong relationships between cohesion and performance (Carron et al., 2002; Filho, Dobersek, Gershgoren, Becker, & Tenenbaum, 2014). It has been hypothesized that cohesion may also act as a source (or antecedent) of collective efficacy (Carron & Hausenblas, 1998; Feltz & Chase, 1998; Filho, Tenenbaum, & Yang, 2015). Previous research has shown that cohesion was positively associated with collective efficacy (e.g., Heuzé, Raimbault, & Fontayne, 2006; Paskevich et al., 1999), and task cohesion was a stronger predictor of collective efficacy than social cohesion (e.g., Kozub & McDonnell, 2000; Paskevich et al., 1999). Previous research has also revealed that sport players with higher reported cohesion and collective efficacy belonged to more successful teams (Leo, Sanchez-Miguel, Sanchez-Oliva, Amado, & Garcia-Calvo, 2013), and cohesion was a positive predictor of collective efficacy over time (Leo et al., 2015).

Scholars have recognized the role that the social environment can play on cohesion, and in turn, collective efficacy (e.g., Heuzé, Sarrazin, Maseiro, Raimbault, & Thomas, 2006). It has been suggested that team factors such as establishing norms, relationships and cooperation are antecedents of cohesion in a number of frameworks (see Collins & Durand-Bush, 2015). For instance, it has been proposed that by establishing group norms, developing close positive relationships, and members working together in an encouraging and cooperative manner to reach goals, are processes that can help to promote cohesiveness (Carron & Spink, 1993; Prapavessis, Carron, & Spink, 1996). Applying such propositions to moral interactions amongst teammates, it seems conceivable that prosocial behaviour toward teammate norms would be associated with higher cohesiveness, whereas antisocial behaviour toward teammate norms would be negatively associated with cohesion. Indeed, a recent study found that players who perceived their teammates more frequently behaved prosocially toward them were associated with reporting higher task cohesion, while players who perceived they were more frequently the recipient of antisocial behavior from teammates

were associated with reporting lower task cohesion (Al-Yaaribi & Kavussanu, 2017).

Therefore, an environment where players act prosocially towards one another and are less likely to commit antisocial behaviour may result in a greater sense of cohesion, and in turn, higher collective efficacy.

The Present Study

The present study aims to provide some initial insight into the role that the behaviour of teammates (team moral norms) plays on intra-team functioning by examining the relationships between team moral norms, cohesion and collective efficacy in sport. We operationalised, four types of team moral norms. Specifically, the frequency athletes perceived their teammates engaged in prosocial behaviour toward their teammates (prosocial behaviour toward teammate norms) and opponents (prosocial behaviour toward opponent norms) as well as antisocial behaviour toward their teammates (antisocial behaviour toward teammate norms) and opponents (antisocial behaviour toward opponent norms). We investigated whether each of the types of team moral norms were associated with cohesion and collective efficacy. We also examined whether any relationships between the types of team moral norms and collective efficacy were indirectly linked via cohesion. The expected relationships are presented in the conceptual model in Figure 1. It was expected that prosocial behaviour toward teammate norms would be positively associated with collective efficacy and cohesion, while antisocial behaviour toward teammate norms would be negatively associated with cohesion and collective efficacy. As it is unclear how teammate behaviour directed toward opponents may be linked with intra-team functioning, relationships between both prosocial and antisocial behaviour toward opponent norms with collective efficacy and cohesion were explored. It was expected that any relationships noted for team moral norms toward opponents would be weaker than for those with team moral norms toward teammates.

Method

Participants

A total of 144 team sport players (95 men; 49 women) participated in this study with an average age of 25.56 ($SD = 5.17$) years. Participants competed in soccer ($n = 74$), rugby ($n = 47$), field hockey ($n = 16$) and basketball ($n = 7$). At the time of data collection, participants had been competing in their main sport for an average of 13.11 ($SD = 6.51$) years, and the highest level at which they had competed was club (74%), county/ regional (16%), and national/ international (10%).

Measures

Perceived moral norms. An adapted version of the Prosocial and Antisocial Behaviour in Sport Scale (PABSS; Kavussanu & Boardley, 2009) was used to assess prosocial and antisocial behaviour toward both teammate and opponent norms. Specifically, the PABSS comprises four subscales that measure: antisocial behaviour toward opponents (eight items; e.g., “deliberately fouled an opponent”), antisocial behaviour toward teammates (five items; e.g., “showed frustration at a teammate’s poor play”), prosocial behaviour toward opponents (three items; e.g., “helped an injured opponent”) and prosocial behaviour toward teammates (four items; e.g., “encouraged a teammate”). The original PABSS asks athletes to complete each item based on their own behaviour, in this study to assess perceived moral norms, participants were asked how often their teammates engaged in each behaviour on a 5 point Likert type scale anchored by 1 (*never*) and 5 (*very often*). Research has supported the convergent, discriminant, and factorial validity of the PABSS as well as all subscales possessing good to very good internal consistency (α 's .73 to .86) (Kavussanu & Boardley, 2009; Kavussanu, Stanger, & Boardley, 2013). The approach we adopt in this study to measure perceived frequency that teammates commit prosocial and antisocial behaviours has also been applied in other research (e.g., Benson et al., 2017).

Collective efficacy. The Collective Efficacy Questionnaire for Sport (CEQS) (Short et al., 2005) was used to measure collective efficacy among athletes' teams. The instrument was designed to measure the athletes' perception of their team's abilities to organize and perform at their desired level. The scale comprises twenty items integrated into five interrelated subscales of four items each: ability (e.g., "outplay the opposite team"), effort (e.g., "play to its capabilities"), persistence (e.g., "perform under pressure"), preparation (e.g., "devise a successful strategy"), and unity (e.g., "keep a positive attitude"). Participants completed each item following the stem "my team has the ability to" with reference to their upcoming fixture and answered each question on an 11-point Likert type scale ranging from 0 (*not at all confident*) to 10 (*extremely confident*). The CEQS has received support for its psychometric properties with alpha coefficients for its subscales ranging from .87 to .92 (Short et al., 2005). Psychometric support has been provided for one overarching factor of overall collective efficacy comprising all items with an alpha coefficient of .96 (Short et al., 2005). Consistent with previous research (e.g., Hampton & Jowett, 2014; Short et al., 2005), an overall collective efficacy score was also calculated by taking a mean from all 20 items.

Cohesion. The Group Environment Questionnaire (GEQ; Carron et al., 1985) was used to measure cohesion. Specifically, this measure assesses individual attractions and group integration for both of the two broad dimensions of cohesion: task cohesion and social cohesion. The GEQ comprises eighteen items measuring four subscales that reflect individual attractions to group-task (ATG-T; four items; e.g., "I'm unhappy with my team's level of desire to win" – reverse scored), group integration-task (GI-T; five items; e.g., "our team is united in trying to reach its goals for performance"), individual attractions to group-social (ATG-S; five items; e.g., "some of my best friends are on this team") and group integration-social (GI-S; four items; "our team would like to spend time together in the off season"). Participants answered each item with reference to their personal involvement within the team

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using a 9-point Likert-type scale ranging from 1 (*strongly disagree*) to 9 (*strongly agree*).

Psychometric support for all four subscales has been demonstrated in previous research including acceptable to good internal consistency: ATG-S ($\alpha = .64$); ATG-T ($\alpha = .75$); GI-T ($\alpha = .70$); and GI-S ($\alpha = .76$) (Carron et al., 1985).

Procedure

The project was approved by the university ethics committee prior to data collection. Participants were then recruited through letter or emails to club coaches for permission to attend a training session to invite participants to take part. The inclusion criteria included athletes being aged 18 years or over, and played competitively in medium-to-high contact team sports. Participants were approached by one of the investigators and provided a participant information sheet and consent form. Participants were reminded of the voluntary nature of the research. Moreover, to reduce potential reporting bias, participants were asked to answer all questions honestly, were informed that responses would be confidential, and completed all questionnaires anonymously. After signing an informed consent form, participants completed the measures described above. Once completed, participants returned the questionnaires directly back to the researcher, were debriefed, and thanked for their participation. Data collection took place mid-season (i.e., at least 4 months into the competitive season) to enable participants to feel embedded within the team as well as facilitate their awareness of teammate behaviour.

Results

Preliminary Analysis

Preliminary analysis was conducted to check for outliers and evaluate the assumptions underlying correlation and regression analyses. Normality of the data was checked by examining univariate skewness and kurtosis scores; these values ranged between

-1.96 to 1.96, indicating no significant deviation from normality. No evidence of multicollinearity was found (tolerance > .05, variance inflation factor < 2).

Internal Consistency, Descriptive Statistics and Correlation Analysis

Alpha coefficients, descriptive statistics and correlations are presented in Table 1. All measures displayed good internal consistency ($\alpha > .70$) with the only exception being attraction to group-social which had an acceptable internal consistency, which is aligned with previous research (e.g., Carron et al., 1985). Mean values suggested that athletes' teammates "often" to "very often" engaged in prosocial behaviour toward teammates (prosocial behaviour toward teammate norms); "sometimes" to "often" engaged in prosocial behaviour toward opponents (prosocial behaviour toward opponent norms); and "sometimes" engaged in antisocial behaviour toward opponents (antisocial behaviour toward opponent norms) and teammates (antisocial behaviour toward teammate norms). Based on the descriptors from the questionnaires, participants on average reported that they "agreed" that their team was socially and task cohesive as well as felt "confident" in their team's ability to achieve its objectives.

Table 1 also presents correlations among all variables. Prosocial behaviour toward teammate norms was positively correlated with all dimensions of cohesion and collective efficacy with small-to-medium effect sizes (r 's .16 to .33), whereas prosocial behaviour toward opponent norms was only positively associated with attraction to group-task with a small effect. Antisocial behaviour toward teammate norms was negatively associated with all dimensions of cohesion and collective efficacy whereas antisocial behaviour toward opponent norms was only negatively associated with group integration-task; these relationships reflected small effect sizes. All dimensions of cohesion were positively correlated with collective efficacy reflecting predominantly medium to large effect sizes (r 's .38 to .61). All

dimensions of collective efficacy were positively correlated with large effect sizes (r 's .51 to .81).

Moral Norms on Cohesion and Collective Efficacy

To address the first main purpose of this study which was to examine whether team moral norms predicted cohesion and collective efficacy, a series of multiple regression analyses were conducted (see Table 2). Team moral norms accounted for 15% of the variance in attraction to group-task, 10% of the variance in group-integration task, 13% of the variance in attraction to group-social, and 11% of the variance in group integration-social. Specifically, prosocial behaviour toward teammate norms was a significant positive predictor of each dimension of cohesion. Moreover, antisocial behaviour toward teammate norms was a significant negative predictor of group integration-social and a marginal negative predictor of attraction to group-social. Prosocial behaviour toward opponent norms and antisocial behaviour toward opponent norms did not contribute a significant unique variance for any dimension of cohesion.

We also ran the models with only the significant predictors from Model 1 which revealed that prosocial behaviour toward teammate norms accounted for 10%, 6% and 10% of the variance in attraction to group-task, group integration-task, and attraction to group-social, respectively. Moreover, prosocial behaviour toward teammate norms and antisocial behaviour toward teammate norms together accounted for 10% of the variance in group integration-social.

For simplicity, due to all the subscales for collective efficacy being positively associated with large effect sizes which were mainly related similarly with dimensions of team moral norms, we focused on a composite score for collective efficacy. Psychometric support has also been provided for using the composite score for collective efficacy (Short et al., 2005), which has been employed in previous research (e.g., Hampton & Jowett, 2014).

Perceived moral norms accounted for 10% of the variance in collective efficacy. Specifically, prosocial behaviour toward teammate norms was a significant positive predictor of collective efficacy. Other aspects of team moral norms did not significantly predict collective efficacy. When running the model again with only prosocial behaviour toward teammate norms, this revealed that this type of team moral norm accounted for 7% of the variance in collective efficacy. In addition, a posteriori power analysis using G Power revealed that all regression models (for both cohesion and collective efficacy) were sufficiently powered with values all above .80 (see Table 2).

Testing Indirect Effects

The second main purpose of this study was to determine whether any relationships between team moral norms and collective efficacy were indirectly associated via cohesion. Given that only prosocial behaviour toward teammate norms predicted collective efficacy, we only tested whether cohesion had an indirect effect on this relationship¹. To address this purpose, bootstrapping was employed which is considered one of the most powerful methods when testing for indirect effects (e.g., Hayes, 2009) using the PROCESS macro for regression analyses conducted via the Statistical Package for the Social Sciences (Hayes, 2013). A multiple mediation model with all four dimensions of cohesion included as parallel mediators was run with 5,000 bootstrap samples to estimate the indirect effect and 95% confidence intervals (CIs) for each proposed mediator. When the confidence interval of an indirect effect does not contain zero, there is evidence of an indirect effect. We also report the completely standardised (ab_{cs}) indirect effect as an indicator of effect size (see Preacher & Kelley, 2011). Prosocial behaviour toward opponent, antisocial behaviour toward teammate, and antisocial behaviour toward opponent, norms were covariates in this analysis.

As shown in Figure 2, prosocial behaviour toward teammate norms was a positive predictor of each dimension of cohesion (the proposed mediators), while the attraction to

group-task and group integration-task dimensions of cohesion positively predicted collective efficacy. Attraction to group-social and group integration-social did not significantly predict collective efficacy. Moreover, the significant positive relationship between prosocial behaviour toward teammate norms and collective efficacy was attenuated, and no longer significant, when controlling for cohesion in the model. Bootstrapping analyses revealed that the indirect effect on the relationship between prosocial behaviour toward teammate norms and collective efficacy was significant via attraction to group-task (point estimate = 0.14, 95% CI of 0.03 to 0.32; $ab_{cs} = 0.06$, 95% CI of 0.01 to 0.13), and group integration-task (point estimate = 0.22, 95% CI of 0.03 to 0.55; $ab_{cs} = 0.10$, 95% CI of 0.01 to 0.23), but was not significant via attraction to group-social (point estimate = 0.04, 95% CI = -0.10 to 0.17; $ab_{cs} = 0.02$ 95% CI of -0.04 to 0.07) or group integration-social (point estimate = 0.03, 95% CI = -0.08 to 0.20; $ab_{cs} = 0.01$ 95% CI of -0.03 to 0.09). These effects were consistent when also controlling for gender, sport type and playing standard.²

Discussion

Although the study of understanding correlates of moral behaviour in sport has received considerable research attention, barely any research has investigated the consequences of moral action in relation to team dynamics and intra-team functioning. To address this gap, we examined relationships between perceived team moral norms (i.e., prosocial and antisocial behaviour toward both teammate and opponent norms), cohesion and collective efficacy. In this study, we found that prosocial behaviour toward teammate norms was positively associated with collective efficacy, which was indirectly related via task cohesion. Moreover, antisocial behaviour toward teammate norms was negatively associated with collective efficacy and social cohesion (i.e., group integration-social). However, prosocial and antisocial behaviour toward opponent norms were not associated with cohesion

or collective efficacy. These findings provide novel insight into the link between moral behaviours committed by athletes and intra-team functioning.

Moral Behaviour Toward Teammate Norms

As predicted, prosocial behaviour toward teammate norms was positively associated with collective efficacy. Thus, in a team where prosocial behaviours directed towards one another was perceived as more prevalent, this was associated with a higher sense of shared confidence in one's team's ability, effort, persistence, preparation, and unity to reach desired outcomes. Moreover, we tested whether these variables were indirectly related via cohesion. As expected, prosocial behaviour toward teammate norms was positively linked with all dimensions of cohesion, and prosocial behavior towards teammate norms and collective efficacy were indirectly related via both dimensions of task cohesion. As argued by a number of researchers, cohesion can act as an antecedent of collective efficacy (e.g., Bandura, 1997; Filho et al., 2015). Thus, a team that has higher frequency of engaging in prosocial behaviour amongst their teammates was associated with having higher task cohesion, and in turn, associated with higher collective efficacy. It is worth noting, both dimensions of social cohesion (i.e., individual attractions to group-social and group integration- social) did not have an indirect effect on the relationship between prosocial behaviour toward teammate norms and collective efficacy. This lack of indirect effect is likely explained by social cohesion not being associated with collective efficacy when controlling for task cohesion, which is consistent with some previous research (e.g., Kozub & McDonnell, 2000; Leo et al., 2015; Paskevich et al., 1999).

As expected, antisocial behaviour toward teammate norms was negatively linked with collective efficacy and cohesion in correlation analyses. These results reflect that if players perform in a team where teammates are perceived to engage in more frequent antisocial behaviour towards one another this may be interpreted as unsupportive or may

result in unproductive team conflict. Our results are therefore aligned with previous research that has showed team conflict being negatively associated with collective efficacy (e.g., Leo et al., 2015). Although it should be appreciated that a lack of team conflict could be inefficient for performance by potentially facilitating group thinking and compromising effort and productive decision making (e.g., Schulz-Hardt et al., 2002), too much conflict that is reflective of verbal abuse and overly criticizing other teammates performance (as measured in the present study) could potentially hinder collective efficacy.

It should also be noted that antisocial behaviour toward teammate norms did not significantly predict collective efficacy, and was only associated with the group integration-social dimension of cohesion, when controlling for other types of moral norms in regression analyses. Though the relationships were still in the expected direction, this lack of unique variance may be attributed to the strength of the effects contributed by prosocial behaviour toward teammate norms. Research in organizational settings looking at team conflict has also demonstrated that the relationship between team conflict and cohesion is moderated by conflict management (Teklaeb, Quigley, & Tesluk, 2009). It is possible that if conflict management is high, teams may start to see benefits in such conflicts and appreciate the diverse opinions among themselves, which may in turn raise levels of cohesion (Teklaeb et al., 2009) and potentially efficacy. Although beyond the scope of this research, it is possible that any potential negative relationships between antisocial behaviour toward teammate norms with cohesion and collective efficacy could be attenuated by team conflict management. Future research could investigate this possibility.

Moral Behaviour Toward Opponent Norms

In contrast to the results for team moral norms relating to behaviour toward teammates, both prosocial and antisocial behaviour toward opponent norms did not predict cohesion or collective efficacy. There are two potential reasons for these findings. First, given

that opponents would change each match, relationships and behaviour toward opponents may fluctuate across matches and thereby are less stable than with teammates (e.g., Al-Yaaribi et al., 2016). Thus, the consequences of behaviour toward an opponent may be less enduring and be expected to be more likely to have direct consequences for opponents rather than intra-team functioning. Another explanation is based on in-group and out-group dynamics. In-group refers to a group that people feel they identify with (e.g., teammates), whereas an out-group (e.g., opponents) is a group towards which members of an in-group can harbor a sense of opposition, resistance, and even potentially hatred (e.g., Tajfel & Turner, 1986). If one has a higher social identity with their in-group, the existence of an out-group may enhance the loyalty that in-group members have for each other and unify the team (e.g., Bruner, Boardley, & Côté, 2014; Weisel & Bohm, 2015). This occurs because of an in-group bias, which is a tendency to favor one's own group and discriminate the out-group. In the facilitation of intergroup competition, in-group bias help groups meet various goals, such as motivate team members and enhance cohesion, and influence members to compete with out-groups (Scheepers, Spears, Doosje, & Manstead, 2006). Hence, the predominance of prosocial behaviour toward teammate norms as a positive predictor of cohesion and collective efficacy over and above behaviour toward opponent norms could be moderated by social identity and in-group biases. Research addressing this possibility would be an interesting direction for future research.

Limitations and Future Research

Although this research presents some novel findings, there are some limitations that need to be considered. Most correlations found between different types of team moral norms, cohesion and collective efficacy reflected small-to-medium effect sizes. Other external factors such as social identity and conflict management could also be examined, as these variables have been found to play a role in relationships between team conflict, cohesion and

collective efficacy in previous research (Bruner et al., 2014; Tekleab et al., 2009). Perceived moral norms was measured through reported perceived behaviours of teammates rather than actual behaviours, and thereby players may not know accurately their teammates' engagement in moral behaviours. Observation methods offer an approach that could capture behaviours not reported by athletes. However, there are only certain types of actions researchers can detect; athletes coexist with their team members during the whole season and observation could not capture all interactions. Therefore, players foreground perceptions are a valuable source of information. Future research could extend our findings by using observational techniques to complement athletes' reported behaviours of teammates.

This study was cross-sectional, therefore the temporal direction of effects cannot be established. That said, participants were reporting each construct in relation to time-frames consistent with the proposed temporal direction of relationships. Specifically, teammate moral behaviours (i.e., perceived moral norms) were measured in relation to past-to-present behaviours, cohesion in relation to players' present perceptions of cohesion, and collective efficacy in relation to their shared confidence in relation to an upcoming fixture. Moreover, the direction of effects hold stronger empirical (e.g., Kozub & McDonnell, 2000; Leo et al., 2015; Paskevich et al., 1999) and theoretical grounding (e.g., Bandura, 1997; Carron & Hausenblas, 1998; Filho et al., 2015). That said, researchers could adopt longitudinal designs in future studies to detect whether any changes in terms of prosocial and antisocial behaviour toward teammate norms predict changes in cohesion, and in turn, collective efficacy.

Participants completed the questionnaires in a fixed order which may potentially result in some order effects through learning and fatigue. However, questionnaire length appeared manageable for all participants with no evidence of missing data for latter items. Also, we used the original version of the GEQ (Carron et al., 1985) to assess cohesion. Though this measure comprises of suitable psychometric properties (e.g., Carron et al., 1985;

Li & Harmer, 1996), it should be noted that some negatively worded items in the measure can affect the internal consistency of some of the scales (Eys, Carron, Bray, & Brawley, 2007).

Though the internal consistency of the subscales were generally satisfactory ($\alpha > .70$) or at least acceptable ($\alpha > .60$) in our sample, researchers may wish to apply the updated GEQ that only includes positively worded items in future research (Eys et al., 2007). Lastly, given the lack of research on the consequences of moral behaviours directed toward teammates and opponents in sport, researchers could continue to investigate their relationships on indices of athlete well-being, intra-team functioning, and performance.

Theoretical and Practical Implications

Based on the present findings some novel theoretical and practical implications can be suggested. First, our findings extend theoretical understanding about moral behaviour in sport by providing evidence on possible consequences of morally relevant behaviour in terms of intra-team functioning. Moreover, such research has implications in terms of collective efficacy frameworks by demonstrating that moral behaviour towards teammates, especially prosocial behaviours, was associated with heightened cohesion and, in turn, collective efficacy (e.g., Bandura, 1997; Feltz & Chase, 1998).

By making coaches, parents, sport psychologists and sport organizations aware of the related benefits of promoting prosocial, and discouraging antisocial, behaviours this can further emphasize the need to target well established correlates of moral behaviour in sport. For instance, interventions that target the development of a mastery climate (e.g., Boardley & Kavussanu, 2009), empathy (e.g., Stanger, Kavussanu, McIntyre, & Ring, 2016), autonomous motivation (Hodge & Lonsdale, 2011) and moral identity (e.g., Kavussanu, Stanger, & Ring, 2015) as well as de-emphasizing controlled motivation (e.g., Hodge & Lonsdale, 2011) and reduces opportunities for moral disengagement (see Boardley & Kavussanu, 2011) could help promote prosocial behaviours and deter antisocial behaviours, and thereby, create norms in

the team that can help optimise intra-team functioning. Taken together, these findings suggest that morality, well-being and performance may be linked, and further research addressing these relationships is warranted.

Conclusion

Research examining moral behaviour in sport has primarily focused on identifying and testing correlates underpinning prosocial and antisocial behaviour, and the study on the consequences of these behaviours has been limited. The present research provided a novel step into understanding the relationships between perceived team moral norms, cohesion and collective efficacy. Prosocial behaviour toward teammate norms was associated with higher levels of cohesion, and in turn, collective efficacy. Conversely, antisocial behaviour toward teammate norms was negatively associated with cohesion and collective efficacy. Our findings underscore the importance of promoting an environment where prosocial behaviour is encouraged, and antisocial behaviour is deterred, in helping to promote outcomes that reflect more conducive intra-team functioning. Accordingly, the present study provides some fruitful preliminary implications for sport coaches, practitioners and policy makers on the consequences of moral behaviour in sport in terms of intra-team functioning that may also have implications on performance.

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Endnotes

¹To check whether cohesion had an indirect effect on relationships between the other types of team moral norms and collective efficacy, separate models were conducted which confirmed that cohesion did not have an indirect effect on these relationships.

²When controlling for gender, sport type, and playing standard on the relationship between prosocial behaviour toward teammate norms and collective efficacy, the indirect effect through attraction to group-task (point estimate = 0.13, 95% CI of 0.02 to 0.33), and group integration-task (point estimate = 0.22, 95% CI of 0.03 to 0.56) were still significant, but were still not significant through attraction to group-social (point estimate = 0.05, 95% CI = -0.08 to 0.19) or group integration-social (point estimate = 0.02, 95% CI = -0.10 to 0.19).