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Social identity and prosocial and antisocial behavior in youth sport

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ABSTRACT

Objectives: To examine (a) the effects of social identity on prosocial and antisocial behavior toward teammates and opponents, and (b) whether any effects of social identity on prosocial and antisocial behavior were mediated by cohesion.
Design: Prospective, observational.
Methods: Male and female youth–sport participants ($N = 329$; $M_{age} = 15.88$ years) completed questionnaires at the beginning, middle and end of the season assessing three dimensions of social identity (cognitive centrality, ingroup ties, ingroup affect), cohesion (task, social) and prosocial and antisocial behavior toward teammates and opponents.
Results: With the exception of cognitive centrality (which was therefore not analyzed further), all measures of study variables proved reliable. Structural equation modeling indicated the following: Ingroup affect had a positive effect on prosocial teammate behavior, Task cohesion mediated a positive effect of ingroup ties on prosocial teammate behavior and a negative effect of ingroup ties and ingroup affect on antisocial behavior toward teammates and opponents. Social cohesion mediated a positive effect of ingroup ties on antisocial behavior toward teammates and opponents. Prosocial opponent behavior was not predicted by any dimension of social identity.
Conclusion: The findings highlight that social identity may play a salient role in regulating prosocial and antisocial behavior in youth sport, and changes in cohesion may partially explain these effects.

Sport teams represent a rich context to investigate the role of peer groups on the social development of adolescents (Holt, Black, Tamminen, Fox, & Mandigo, 2008). Recent surveys indicate that approximately 80% of youth (12–17 years) report participation in a team sport (Canadian Fitness and Lifestyle Research Institute, 2009; United States Census Bureau, 2012). Membership in sport teams fulfills a fundamental human need for belonging (Baumeister & Leary, 1995). During adolescence, there is an increased need for interaction and intimacy with peers as an adolescent's social realm expands beyond the family to peer groups (Wagner, 1996). However, despite the importance of peers in sport, minimal research has examined how peers shape and support adolescents' social development within the sport context (Smith, 2007). In particular, minimal research has been devoted to understanding how the identities that youth form through their membership on sport teams – their social identities – may influence their social development. The identities youth form around membership on sport teams comprise an important component of a youth's self-concept and are critical in establishing moral values in youth sport (e.g., Shields, LaVoi, Bredemeier, & Power, 2007; Weiss, Smith, & Stuntz, 2008).

Existing research on social identity is predominantly based upon Tajfel and Turner's (1979) Social Identity Theory (SIT). The central premise of SIT is that people define and evaluate themselves in terms of the groups to which they belong (Hogg & Abrams, 2001). Social identity has been defined as "that part of an individual's self-concept which derives from his/her knowledge of his/her membership of a social group (or groups) together with the value and emotional significance attached to that membership" (Tajfel, 1981, p. 255). As highlighted within this formal definition, social identity is conceptualized as having three key dimensions: (1) *cognitive centrality* (importance of being a group member); (2) *ingroup affect* (positive feelings associated with group membership); and (3) *ingroup ties* (perceptions of similarity, bonding, and belongingness with other group members) (Cameron, 2004).

Research in the laboratory and field over the past 50 years suggests social identity has important consequences for behavior (e.g., Hornstein, 1976; Nezlek & Smith, 2005; Tajfel, Billig, Bundy, &

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Flament, 1971). Early laboratory work by Tajfel et al. (1971) demonstrated that simply categorizing participants into different groups based upon a trivial criterion (e.g., coin flip) elicited a positive bias toward one's group. Consistent with Tajfel's findings, individuals who identify strongly with their group have been found to socially interact more positively with group members than non-group members (Nezlek & Smith, 2005), and display more prosocial or helping behavior toward group members and greater antisocial behavior toward non-group members (Hornstein, 1976).

Surprisingly, few studies have investigated social identity in sport (i.e., Murrell & Gaertner, 1992; Zucchermaglio, 2005). Murrell and Gaertner (1992) are credited as being the first to examine social identity in youth sport, when investigating the salience of common group or team identity on performance within four high school American football teams. Ninety-four high school football players (ranging from Grade 9 to 12, median age of 16) completed a survey that measured strength of identification with the team as a whole, as offensive versus defensive units, or as individual players. Results indicated that players on winning teams (as determined by season win-loss record) emphasized team unity significantly more than players on teams with losing records.

Zucchermaglio (2005) undertook a qualitative, ethnographic approach to investigate the rhetorical manipulation of social identities arising in the discourses of a professional soccer team. Interactions between team members were audio recorded after a victory, after a defeat, and in a pre-game situation. Zucchermaglio coded the conversations paying particular attention to the pronouns used within the conversations (e.g., I, we). Results revealed how the outcome of the match influenced how team members referenced team membership and specific sub-groups. For example, after a loss, team members were more likely to distance themselves from the team and identify specific sub-groups to account for the loss (e.g., forwards were responsible for the loss for not scoring goals), whereas post victory the group was considered as a whole and fewer differentiations were made regarding team membership. Thus, research to date has predominantly investigated social identity as a global construct, and focused on establishing conceptual and empirical links between social identity and performance. Researchers in sport have yet to: (a) empirically examine the social identity and social development relationship in sport and (b) examine the three dimensions of social identity in sport.

Given the importance of the social context to athletes' social development, it is possible that social identity may influence adolescents' prosocial and antisocial behavior in sport. While researchers have not yet directly investigated social identity and prosocial and antisocial behavior in youth sport, empirical support exists that suggests such investigation is warranted. Support can be drawn from several studies in sport examining the role of the social context on prosocial and antisocial behaviors (Boardley & Kavussanu, 2009, 2010; Kavussanu, 2006; Rutten et al., 2007, 2008, 2011). Prosocial behaviors have been defined as voluntary acts intended to help or benefit another individual or group of individuals (Eisenberg & Fabes, 1998) and antisocial behaviors as voluntary acts intended to harm or disadvantage another individual or group of individuals (Sage, Kavussanu, & Duda, 2006). Examples from sport are helping an injured opponent for prosocial behaviors and deliberately fouling an opponent for antisocial behaviors. Importantly, Kavussanu and Boardley (2009) recently showed team-sport athletes distinguish between prosocial and antisocial behaviors toward teammates and opponents.

Researchers have identified important links between environmental factors and prosocial and antisocial behavior (Boardley & Kavussanu, 2009, 2010; Kavussanu, 2006; Rutten et al., 2007, 2008, 2011). Boardley and Kavussanu (2009) linked motivational climate (i.e., goals emphasized in an achievement context; Ames, 1992), perceptions of coaches' character-building competency (i.e., coach's belief in his/her ability to influence athletes' personal development and positive attitudes toward sport; Feltz, Chase, Moritz, & Sullivan, 1999), and prosocial and antisocial sport behavior in male and female athletes in the sports of field hockey and netball. In addition, Boardley and Kavussanu (2010) have also linked male soccer players' achievement goal orientations (i.e., the criteria an individual tends to use to judge his/her competence, Nicholls, 1989) and perceptions of the value of toughness (i.e., importance placed on dominating others to gain acceptance and social status; South & Wood, 2006) with antisocial behavior toward opponents and teammates. Also, Rutten and colleagues undertook a line of research investigating how the contextual characteristics in sport shape the prosocial and antisocial behaviors of young athletes (M_{age} range 14.0 [2008] – 15.3 [2011]) within and outside of the sport context (Rutten et al., 2007, 2008, 2011). Through these studies Rutten and colleagues found contextual factors such as sociomoral atmosphere (i.e., a set of collective norms regarding acceptable group member behaviors; Power, Higgins, & Kohlberg, 1989), stage of moral reasoning about sport dilemmas, coach–athlete relationship quality, attitude toward fair play (athlete and coach), and relational support from the coach to be linked with antisocial and prosocial sport behaviors in adolescent male and female participants in sports including soccer, swimming, basketball, and taekwondo. Collectively, research in this area has highlighted the salient role of the youth–sport environment in providing a social context that potentially influences the prosocial and antisocial behavior of adolescent athletes.

Taken together, the extant literature on social identity outside of sport and that on prosocial and antisocial behavior in sport support examination of the relationships between these constructs in a youth–sport setting. The overarching purpose of this investigation was to examine whether the three dimensions of social identity (ingroup ties, cognitive centrality, ingroup affect) predict prosocial and antisocial behavior toward teammates and opponents in youth sport. A priori hypotheses for the specific relationships were formulated based on theory and/or past research. A key tenet of SIT is that when identification with a group is salient, group members become less concerned with themselves and more concerned with the team and the team's success (Beauchamp & Dunlop, 2013; Tajfel & Turner, 1979). Strongly identifying group members look to differentiate themselves from other groups and are motivated to demonstrate the superiority of their own group (Beauchamp & Dunlop, 2013). Drawing on theory and empirical work in social identity (Nezlek & Smith, 2005; Tajfel et al., 1971), two dimensions of social identity (ingroup ties: perceptions of connection, bonding, belonging in a group; cognitive centrality: importance of the group to the individual) were expected to positively predict prosocial behavior toward teammates and antisocial behavior toward opponents, and negatively predict antisocial behavior toward teammates and prosocial behavior toward opponents.

For two of the relationships of interest, hypotheses that contrasted with those for the two dimensions covered above were formulated for the remaining social identity dimension (i.e., ingroup affect). Importantly, Bandura's (1991) social-cognitive theory (SCT) of moral thought and action identifies how anticipation of resultant affect is thought to regulate an individual's prosocial and antisocial behavior. More specifically, individuals behave prosocially toward others in anticipation of positive emotional reactions such as pride, and harmful conduct is deterred when one anticipates undesirable feelings such as shame and guilt as a result of one's behavior. Based upon Bandura's (1991) theory, and work that has supported the role of emotion in regulating antisocial behavior in sport (e.g., Stanger, Kavussanu, Boardley, & Ring, 2012),

we hypothesized that those who associated team membership with positive emotions (i.e., higher ingroup affect) would be motivated to act in a way to preserve such feelings by engaging in more frequent prosocial behavior, and less frequent antisocial behavior toward teammates and opponents.

When examining relationships between psychological constructs and behavior, it is important to examine potential mediators of such relationships (see Baranowski, Anderson, & Carmack, 1998). One potential mediator to consider in work involving social identity and prosocial and antisocial behavior is group cohesion. Group cohesion is regarded as the most important small group variable (Globembiewski, 1962), and is commonly defined as "a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of instrumental objectives and/or for the satisfaction of member affective needs" (Carron, Brawley, & Widmeyer, 1998, p. 213). While the majority of research with cohesion has been conducted with adults, an emerging body of work has investigated the construct with youth populations. Eys, Loughead, Bray, and Carron (2009a, 2009b) developed an age-appropriate group cohesion instrument for use with youth populations. In this work, Eys et al. (2009a, 2009b) found support for a two-dimensional structure for cohesion in youth sport that incorporates task and social dimensions of cohesion. Task cohesion focuses on perceptions of the level of unity possessed by the group around task-relevant aspects (e.g., goals, objectives, etc.). In contrast, social cohesion focuses on perceptions of the level of unity possessed by the group around social relationships (e.g., friends on the team, hanging out with team members outside of sport setting; Eys et al., 2009a, 2009b). Recent studies by De Backer and colleagues have found perceptions of social identity operationalized as team identification to positively predict task and social cohesion in female elite level volleyball and handball teams (De Backer et al., 2011). The empirical findings support the underlying intent of many coaches and players is to differentiate themselves from other groups (i.e., build a team social identity) through strategies to foster distinctiveness (e.g., team chants; Beauchamp & Dunlop, 2013). The process of building a distinctive team social identity is theorized to bolster cohesion around the task (i.e., team functioning and performance) and social (i.e., relationships) (Carron & Spink, 1993; Carron, Spink, & Prapavessis, 1997). Conceptually, if a team's cohesion is perceived to be high, this could also have important implications on athlete's behavior toward teammates and the opposition. Recent work in youth sport supports this supposition, as higher perceptions of task cohesion were found to be positively related to emotional regulation, and decreased social exclusion toward teammates (Taylor & Bruner, 2012).

Based upon relationships identified between (a) social identity and cohesion within sport (De Backer et al., 2011), and (b) cohesion and prosocial and antisocial behaviors (Taylor & Bruner, 2012), it is possible that cohesion mediates relationships between social identity and prosocial and antisocial behavior in youth sport. Thus, a secondary purpose of the study was to investigate whether cohesion mediated the relationships between social identity and prosocial and antisocial behavior toward teammates and opponents. In light of existing findings, we hypothesized that task and social cohesion would: (a) be positively related to each of the three dimensions of social identity, (b) mediate positive effects of all three dimensions of social identity on prosocial behavior toward teammates and opponents, and (c) mediate negative effects of all three dimensions on antisocial behavior toward teammates and the opponents. As such, four of the relationships between social identity dimensions and behavior (i.e., those between ingroup affect and prosocial and antisocial behavior toward opponents) were hypothesized to have contrasting direct and mediated effects (see Fig. 1 for an overview of the study hypotheses).

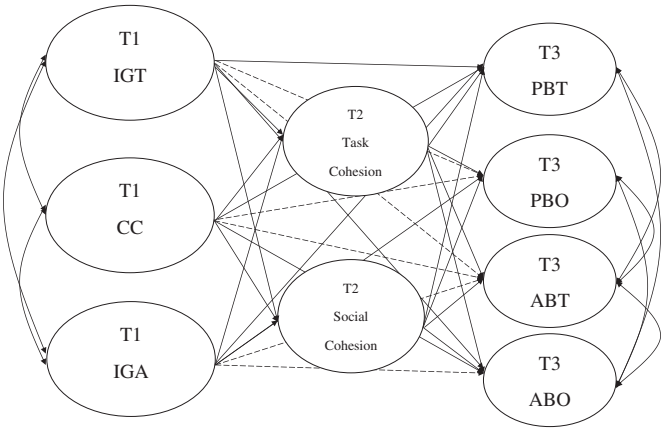

Fig. 1. Hypothesized structural model of social identity, cohesion, and prosocial/antisocial behavior. *Note*: solid lines represent hypothesized positive relationships between constructs. Dashed lines represent hypothesized negative relationships between constructs. IGT – ingroup ties, CC – cognitive centrality, IGA – ingroup affect, PBT – prosocial behavior teammate, ABT – antisocial behavior teammates, ABO – antisocial behavior – opponent, T1 – Time 1, T2 – Time 2, T3 – Time 3.

Method

Participants

Participants included 426 youth from 26 high school sport teams (n = 14 basketball, n = 4 soccer, n = 3 ice hockey, n = 2 American football, n = 2 rugby, n = 1 lacrosse). For the purposes of this study, the sample included the 329 Canadian youth (248 male, 81 female; M_{age} = 15.88 years; SD = 1.25) who completed the survey at all three data-collection time points (i.e., beginning, middle, and end of the regular season). This represented an attrition rate of 23% from the participants that completed the survey at the beginning of the season (time 1). Participants had on average 6.45 (SD = 3.77) years of experience in their respective sports.

Measures

Social identity

The three dimensions (cognitive centrality, ingroup ties, ingroup affect) of social identity were assessed using an adapted version of the 12-item measure developed by Cameron (2004). Items were adapted to reflect the sport context by the first author who has considerable experience in evaluating social identity in an activity context with youth populations (Bruner & Spink, 2008). For example, the ingroup ties item "I have a lot in common with other members in this group" was modified to "I have a lot in common with other members in this team". Participants were asked to reflect on how they felt about their team. Example items for cognitive centrality and ingroup affect, respectively, were: "In general, being a team member is an important part of my self-image" and "Generally, I feel good when I think about myself as a team member". The readability of the modified items and their applicability to youth sport were assessed in a focus group consisting of youth–sport participants (n = 5). The items were answered using a 7-point scale, anchored by 1 (*strongly disagree*) and 7 (*strongly agree*). Previous research has demonstrated adequate reliability, and factorial, convergent, and discriminant validity of the three dimensional measure with adults (Cameron, 2004; Obst & White, 2005). However, given the measure has not previously been used with youth sport participants, we pilot tested the adapted instrument alongside other study measures with youth (n = 6) in the lower range of the sample age group to evaluate the

appropriateness of the wording for younger athletes. This pilot testing revealed no concerns with the subscale items or instructional wording. Support for the scale's utility with youth populations was also supported by successful adaptation of an exercise version of the social identity measure with similarly aged participants in a previous study (Bruner & Spink, 2008).

Prosocial and antisocial behaviors in sport

Prosocial and antisocial behaviors were measured using the Prosocial and Antisocial Behavior in Sport Scale (PABSS; Kavussanu & Boardley, 2009). The PABSS includes 20 items that represent four subscales assessing four types of behavior: prosocial behavior toward teammates (4 items; e.g., "Gave positive feedback to a teammate"); prosocial behavior toward opponents (3 items; e.g., "Helped an injured opponent"); antisocial behavior toward teammates (5 items; e.g., "Criticized a teammate"); antisocial behavior toward opponents (8 items; e.g., "Tried to injure an opponent"). Participants were asked to think about their experiences while playing for their team this season and indicate how often they had engaged in each behavior this season. The items were proceeded by "While playing for my team this season, I…." Items were answered using a 5-point scale, anchored by 1 (*Never*) and 5 (*Very often*). Evidence supporting the construct validity and reliability of the measure with samples representing a broad age range (i.e., 12–64 years) including youth has been reported (Boardley & Kavussanu, 2009, 2010; Kavussanu & Boardley, 2009).

Group cohesion

The eighteen items from the Youth Sport Environment Questionnaire (YSEQ; Eys et al., 2009a) were used to evaluate task and social cohesion. Participants were asked about their feelings toward their respective team. Example items for task and social cohesion, respectively, are "I like the way we work together as a team" and "Some of my best friends are on this team." The items were answered using a 9-point scale anchored by 1 (*strongly* disagree) and 9 (*strongly agree*). Eys et al. (2009a) reported acceptable factorial validity for this scale in a sample of youth athletes.

Procedure

After obtaining institutional and school-board ethics approval, coaches from three school boards in Canada were invited to participate in the study. Contact with approximately 80 coaches involved presentations at school-board athletic meetings and invitations to speak with high school coaches at their respective schools. Participants were recruited from the high school teams of interested coaches. The lead author or a research assistant provided an explanation of the study at the beginning or end of a scheduled practice session at the beginning of the season. Athletes were presented with an information sheet, an athlete assent form and parental consent form. Informed assent and parental consent was obtained from all participants. Participants completed a questionnaire on the study variables and demographic questions at the beginning (2 weeks), middle (6–8 weeks) and end (12–16 weeks) of the regular season. The regular seasons were three to four months (12–16 weeks) in length. Questionnaires were completed prior to or after a scheduled practice. Each data collection lasted approximately 20 min.

Data analysis

Preliminary analyses

We first examined the normality (i.e., skewness and kurtosis). We then conducted CFAs on the three scales to evaluate their factorial validity. The internal consistency (i.e., Cronbach's alpha) of the scales was then estimated and descriptive statistics calculated for the study variables.

Main analyses

The purposes of this study were to prospectively examine (a) whether social identity predicted prosocial and antisocial behaviors toward teammates and opponents in youth sport, and (b) whether any effects were mediated by group cohesion. These purposes were examined using Structural Equation Modeling (SEM), and the approaches recommended by Anderson and Gerbing (1988); all SEM analyses were conducted using the EQS 6.1 statistical package with the robust maximum-likelihood estimator (Bentler & Wu, 2002). The application of cut-off criteria for a range of fit indices in SEM has become a contentious issue, with some experts suggesting they should not be used at all (Barrett, 2007), and others proposing that the inclusion of certain fit indices is warranted (Bentler, 2007). As there is no current consensus on this issue, we have provided indices for the interested reader. In accordance with the guidelines provided by Bentler (2007), the indicators of model fit provided are as follows: the Satorra–Bentler chi-square (χ^2); the robust comparative fit index (CFI); the standardized root mean square residual (SRMR); and the robust root mean square error of approximation (RMSEA). For guidance, it has been suggested that a good fit is achieved when CFI values are close to .95, the SRMR is close to .08, and the RMSEA is close to .06 (Hu & Bentler, 1999).

Results

Preliminary analyses

Data screening

Univariate normality of the study variables was evidenced by skewness (−1.0 to .9) and kurtosis (−.80 to 1.13) values of $<|2|$. Mardia's coefficient of multivariate kurtosis for the initial measurement model was 52.68 supporting the use of Satorra–Bentler robust estimates.

Confirmatory factor analysis

CFA of the social identity data at Time 1 supported the factorial validity of the adapted SI measure: χ^2 (17) = 33.87 ($p < .05$); CFI = .96; RMSEA = .06 (90% CI = .03–.08); SRMR = .06. Time 2 and 3 data, respectively, demonstrated good factorial validity for the YSEQ (χ^2 (103) = 207.04 ($p < .05$); CFI = .96; RMSEA = .06 (90% CI = .04–.07); SRMR = .05) and the PABSS (χ^2 (164) = 272.693 ($p < .05$); CFI = .96; RMSEA = .05 (90% CI = .04–.05); SRMR = .06).

Scale reliabilities and descriptive statistics

Estimation of Cronbach's alphas demonstrated acceptable-to-good levels of internal consistency for eight of the nine subscales, with values above the generally accepted criterion of .70 (Nunnally & Berstein, 1994). However, the cognitive centrality scale had a low alpha (.56) and was therefore excluded from further analyses. Alphas and descriptive statistics for the remaining eight subscales are presented in Table 1. On average, athletes reported moderately high levels of prosocial behavior toward teammates, moderately low levels of prosocial behaviors toward opponents and antisocial behaviors toward teammates and opponents, and moderately high to high levels of task cohesion, social cohesion, ingroup ties, and ingroup affect.

Main analyses

Testing the measurement model

The first step of the Anderson and Gerbing (1988) approach to SEM involves testing the measurement model, that is, the

Table 1
Descriptive statistics, factor correlations, and scale reliabilities ($N = 329$).

Variable	*M*	SD	Range	1	2	3	4	5	6	7	8
1. Prosocial teammate behavior	4.08	.66	1.25–5.00	(.75)							
2. Prosocial opponent behavior	2.56	.99	1.00–5.00	.01	(.79)						
3. Antisocial teammate behavior	2.12	.80	1.00–4.80	−.35*	.20*	(.87)					
4. Antisocial opponent behavior	2.38	.87	1.00–4.88	−.19*	.16*	.75*	(.89)				
5. Ingroup ties	5.51	1.03	1.50–7.00	.26*	.02	−.00	.05	(.78)			
6. Ingroup affect	6.21	.84	2.00–7.00	.37*	−.05	−.12	−.04	.56*	(.79)		
7. Task cohesion	6.66	1.34	2.33–9.00	.29*	−.09	−.24*	−.09	.41*	.35*	(.92)	
8. Social cohesion	6.27	1.64	1.50–9.00	.24*	−.04	.03	.13*	.59*	.35*	.63*	(.94)

Note: alpha coefficients are presented on the diagonal. Possible scale ranges: 1–7 for social identity (ingroup ties, ingroup affect), 1–9 for cohesion (task, social), and 1–5 for all other scales. All values were calculated based on the items used in model testing. *$p < .05$.

relationships of the observed items to their posited factors. The initial measurement model consisted of 44 items measuring ingroup ties and ingroup affect at Time 1, task cohesion and social cohesion at Time 2, and prosocial and antisocial teammate and prosocial and antisocial opponent behaviors at Time 3. Items for prosocial opponent behavior were excluded as this construct was not associated with either type of social identity in initial model testing. Specification of this model resulted in a good fit, χ^2 (756) = 1123.51 ($p < .05$); CFI = .94; RMSEA = .04 (90% CI = .03–.04); SRMR = .05. Factor loadings ranged from .51 to .87 ($M = .73$). Factor correlations from this model are presented in Table 1. Ingroup ties and ingroup affect had a strong positive correlation and were both moderately and positively related to prosocial behavior toward teammates and had moderate-to-strong positive associations with task and social cohesion. Task and social cohesion had weak-to-moderate positive relationships with prosocial behavior toward teammates, task cohesion had a weak negative association with antisocial behavior toward teammates, and social cohesion had a weak positive correlation with antisocial opponent behavior. Correlation coefficients of .10, .30, and .50 represent small, medium, and large effect sizes, respectively (Cohen, 1992).

Testing the structural model

The second step recommended by Anderson and Gerbing (1988) is to test the structural model. Thus, a model was specified in which ingroup ties and ingroup affect at Time 1 predicted prosocial behavior toward teammates and antisocial behavior toward teammates and opponents at Time 3 directly as well as through task and social cohesion at Time 2. In addition, correlations between ingroup ties and ingroup affect, and between the error terms of task and social cohesion, prosocial behaviors toward teammates and opponents, and antisocial behaviors toward teammates and opponents were specified (see Fig. 2). This model fit the data well, χ^2 (756) = 1123.53 ($p < .05$); CFI = .94; RMSEA = .04; SRMR = .06 and explained 17% of the variance in prosocial behavior toward teammates, 11% and 6% of the variance in antisocial behavior toward teammates and opponents, respectively, and 19% and 34% of the variance in task and social cohesion, respectively.

The second purpose of the study was to examine whether task and social cohesion mediated any predictor effects on behavior. To investigate the presence and magnitude of mediation, when specifying the model, we requested the decomposition of model effects into direct, indirect, and total effects (Bollen, 1987). Direct effects are the effects of the predictor variables (i.e., ingroup ties and ingroup affect) on the outcome variables (i.e., prosocial and antisocial behavior toward teammates and opponents) that occur independently of the mediator (i.e., task and social cohesion); indirect effects represent the mediated effect (i.e., through task and social cohesion); and total effects are the sum of these two effects. The percentage of the total effect accounted for by the indirect effect reflects the magnitude of mediation. The total, direct, and indirect effects of ingroup ties were .06 ($p > .05$), −.01 ($p > .05$), .07

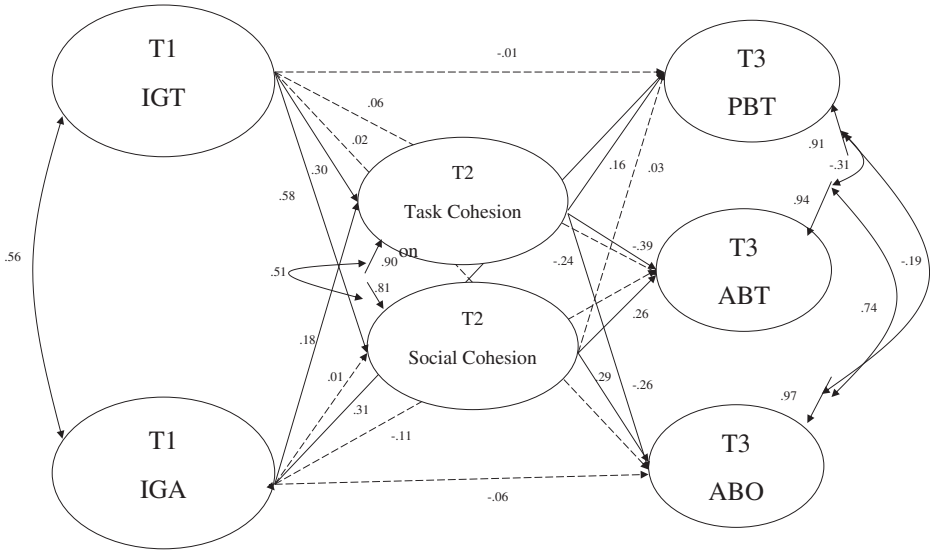

Fig. 2. Final structural model. *Note*: solid lines represent significant relationships between constructs. Dashed lines represent nonsignificant relationships between constructs. IGT – ingroup ties, IGA – ingroup affect, PBT – prosocial behavior teammate, ABT – antisocial behavior teammates, ABO – antisocial behavior – opponent, T1 – time 1, T2 – time 2, T3 – time 3.

($p > .05$) respectively on prosocial teammate behavior, .10 ($p > .05$), .06 ($p > .05$), .03 ($p > .05$) on antisocial teammate behavior, and .11 ($p > .05$), .02 ($p > .05$), .09 ($p > .05$) on antisocial opponent behavior. The total, direct, and indirect effects of ingroup affect were .34 ($p < .05$), .31 ($p < .05$), and .03 ($p > .05$) on prosocial teammate behavior and −.18 ($p > .05$), −.11 ($p > .05$), and −.07 ($p < .05$) on antisocial teammate behavior, and −.11 ($p > .05$), −.06 ($p > .05$), and −.04 ($p > .05$) on antisocial opponent behavior. Thus, the percentage of the total effect of ingroup affect on prosocial teammate behavior mediated by cohesion was 9%.

To test the significance of the mediated effects, we used the distribution of products test (MacKinnon, Lockwood, & Hoffman, 1998). This test has been identified as an effective test of mediation that retains more statistical power and maintains an accurate Type I error rate in comparison with other mediation tests (see MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). The test involves converting the two parameter estimates that form the mediated relationship (i.e., the effect of the predictor variable on the mediator and the effect of the mediator on the outcome variable) into *z*-scores and comparing the product of these two *z*-scores against values in a product of two random, normal variables table (e.g., Craig, 1936) to determine statistical significance. If the product of the two *z*-scores is significant, then the mediated effect is statistically significant. This test indicated the indirect effects of ingroup ties on prosocial behavior toward teammates ($z_\alpha z_\beta = 6.70$ [task]) and antisocial behavior toward teammates ($z_\alpha z_\beta = -14.82$ [task]/9.11 [social]) and opponents ($z_\alpha z_\beta = -10.64$[task]/−19.41 [social]) mediated by cohesion were significant. In contrast, the effect of ingroup ties on prosocial behavior toward teammates ($z_\alpha z_\beta = 2.07$) mediated by social cohesion was not significant. Further, the effects of ingroup affect on antisocial behavior toward teammates ($z_\alpha z_\beta = -9.07$) and opponents ($z_\alpha z_\beta = -6.50$) mediated by task cohesion were significant. In contrast, the mediated effects of ingroup affect on prosocial behavior toward teammates ($z_\alpha z_\beta = 1.06$[task]/.05[social]) and antisocial behavior toward teammates ($z_\alpha z_\beta = .45$) and opponents ($z_\alpha z_\beta = .51$) were not significant. Overall, the results showed that task and/or social cohesion mediated effects of ingroup ties on prosocial and antisocial behavior toward teammates and task cohesion mediated effects of ingroup affect on the three types of prosocial and antisocial behavior.

Discussion

Youth sport teams constitute an important developmental context shaping and supporting the behavior of team members (Bruner, Eys, & Turnnidge, 2013; Holt et al., 2008). Although previous research has begun to examine the effect of the social context of sport on youth prosocial and antisocial behavior (e.g., Rutten et al., 2011), researchers have not yet focused on the influence of the sport team and its group processes on these behaviors over time. The current study examined whether aspects of social identity prospectively predicted prosocial and antisocial behaviors toward teammates and opponents and whether cohesion mediated any effects over the course of a season.

The study findings support the hypothesis that ingroup affect (i.e., positive feelings associated with group membership) has a positive effect on prosocial behavior toward teammates. This finding means that athletes who reported deeper feelings associated with being a member of their team reported engaging more frequently in prosocial behaviors toward their teammates such as encouraging or offering constructive feedback. This supports previous group dynamics and social psychology research indicating greater identity with a group leads to greater prosocial behavior toward ingroup members (Hornstein, 1976). Conceptually, the findings support SIT (Tajfel & Turner, 1979) and Bandura's (1991) SCT of moral thought and action as it highlights the important role of affect in regulating moral behavior. Consistent with SIT, young athletes with greater emotional investment toward a group may engage in prosocial behavior toward teammates as a means to enhance self-worth and/or to highlight a commitment to group-level performance (Beauchamp & Dunlop, 2013). Further, in accordance with SCT, prosocial behavior toward teammates may also be motivated by the pleasant emotions (e.g., pride) that would be anticipated to result from engaging in prosocial acts toward teammates (Bandura, 1991). Taken together, these two theoretical suppositions may explain the study finding indicating enhanced ingroup affect predicts more frequent prosocial behavior toward teammates in youth sport.

A somewhat surprising finding was that young athletes with stronger perceived connections to team members (i.e., ingroup ties) did not significantly report engagement in more frequent antisocial behavior toward opponents. While this finding was counter to our hypothesis the direction of the prediction of antisocial opponent behavior by ingroup ties was in the direction hypothesized. The absence of a significant effect may have been in part a function of existing team norms for antisocial behavior toward opponents (i.e., behavioral standards of group members; Carron & Eys, 2012). Based on SIT and social identity research outside of sport (Terry, Hogg, & White, 1999), highly identifying team members may act antisocially toward the opposition only when there is a prevailing norm for such behavior within the team. Thus, weak prevailing norms for antisocial opponent behavior could weaken the relationship between ingroup ties and this type of behavior and potentially explain why the anticipated relationship was not significant.

A second unexpected finding was that ingroup ties and ingroup affect did not predict prosocial behavior toward opponents. This may have been accounted for by infrequent opportunity for such acts. Previous research has shown positive relationships between antisocial and prosocial opponent behavior (Boardley & Kavussanu, 2009; Kavussanu & Boardley, 2009) which have been explained by the greater opportunity to engage in helping behaviors toward opponents (e.g., helping opposition off the ground) when one acts antisocially toward them (e.g., deliberately fouling opponents). Given antisocial behavior increases in frequency with age in soccer (Kavussanu, Seal, & Phillips, 2006), this may also be the case in the sports tested here. Differences in age in the current sample ($M = 15.88$) in comparison to the Boardley and Kavussanu (2009; $M = 22.2$) and Kavussanu and Boardley (2009; $M = 19.61$) samples may explain the less frequent antisocial opponent behavior seen in the current study in comparison to these studies. Resultant reduced opportunity for prosocial opponent behavior may explain the null effect of social identity on this type of moral behavior. However, this possible explanation requires further empirical study to be confirmed or refuted.

The second purpose of the study was to determine whether any effects of social identity on prosocial and antisocial behavior were mediated through changes in cohesion. Task cohesion was found to mediate a positive effect of ingroup ties on prosocial teammate behavior and negative effects of ingroup ties and ingroup affect on antisocial behavior toward teammates and opponents. The effects of social identity (i.e., ingroup ties and ingroup affect) on prosocial and antisocial behaviors mediated by increases in task cohesion are desirable (i.e., more frequent prosocial behavior toward teammates and less frequent antisocial behavior toward teammates and opponents). These findings suggest that the extent an individual identifies with a team may influence the perceptions of how well the team functions and works as a collective toward its goals (i.e., task cohesion), which in turn may influence the frequency of prosocial behavior toward teammates and antisocial behavior toward

teammates and opponents. These results prompt questions as to what it is about task cohesion that may explain the identified relationships. Recent work by Eys et al. (2009b) who qualitatively investigated cohesion in youth sport may offer valuable insight on this. Eys et al. found that young athletes' perceptions of task cohesion were associated with better teamwork, more effective communication, and greater understanding of teammates' abilities. These processes offer possible mechanisms to explain the mediating role of task cohesion between the two dimensions of social identity and prosocial and antisocial behaviors toward teammates and opponents. Specifically, more effective intragroup processes (e.g., communication and/or teamwork) may result in more frequent prosocial behavior toward teammates (e.g., encouragement). Improved intragroup processes may also promote enhanced valuing of team member contributions toward achieving team goals and thus reduce antisocial behavior toward teammates (e.g., criticism). Further, more effective intragroup processes may lead athletes to devote their energy to team functioning and less energy toward acting antisocially toward opponents. However, these explanations are speculative at this stage and further investigation of the mechanisms through which task cohesion mediates desirable effects of social identity on prosocial and antisocial behavior in sport is warranted.

In contrast, perceptions of social cohesion mediated a positive effect of ingroup ties on antisocial behavior toward opponents. The positive effect of ingroup ties on social cohesion and of social cohesion on antisocial behavior toward opponents may in part be a function of the strength and importance of the friendships formed between team members. In a qualitative study investigating perceptions of cohesion in young athletes, Eys et al. (2009b) found high social cohesion to be associated with teammates developing friendships. Such friendships may motivate behaviors that are perceived to demonstrate the importance of the ingroup over the outgroup toward friends in the ingroup. It is possible that some players consider antisocial behaviors toward opponents to be one category of behavior that demonstrates this. This offers a potential explanation for why social cohesion mediated a positive effect of ingroup ties on antisocial behavior toward opponents in the current study. Although this explanation has not been empirically tested in sport, support can be drawn from previous research in social psychology examining intergroup behavior between "ingroup" and "outgroup" members (Sherif, Harvey, White, Hood, & Sherif, 1961). In their seminal Robber's Cave Experiment, Sherif et al. examined intergroup conflict and cooperation among fifth-grade boys assigned into two groups at a summer camp. Consistent with our proposed explanation of the mediation findings, Sherif et al. reported increased camaraderie among members of the same group and antisocial behavior toward outgroup members such as derogatory remarks and physical aggression during intergroup activities. Although the process described above offers a potential explanation for why social cohesion mediated a positive effect of ingroup ties on antisocial behavior toward opponents in the current study, further research in sport is required to empirically test this possibility.

The effect of ingroup ties on antisocial behavior toward teammates mediated by social cohesion was also maladaptive as increases in ingroup ties predicted greater perceptions of social cohesion which in turn predicted more frequent antisocial behavior toward teammates. A possible explanation for these results may be provided by an apparent paradox in research findings on cohesion. Whilst many sport psychology researchers have generally thought of cohesion as a "good thing", being positively associated with both individual and group benefits (Paskevich, Estabrooks, Brawley, & Carron, 2001), other researchers have proposed that cohesion might be perceived as both positive and negative (e.g., Hardy, Eys, & Carron, 2005). Co-existing positive and negative consequences of high levels of social cohesion may explain why social cohesion mediated a positive effect of ingroup ties on antisocial behaviors toward teammates in the current study. Hardy et al. (2005) qualitatively investigated effects of high social cohesion in sport teams and found that 56% of 105 athletes interviewed reported possible disadvantages of high social cohesion including increased formation of cliques and sub-groups within teams, as well as communication problems (e.g., greater tendency to start and continue verbal fights and bickering with teammates). Players in the current study with increased perceptions of social cohesion may have reported engaging in more frequent antisocial behaviors toward teammates such as verbally abusing them due to undesirable interactions with members of cliques of which they did not belong, and/or because they reflect communication problems they have experienced due to increased social cohesion. Importantly, mean levels of social cohesion ($M = 6.28$) were well above the midpoint on the scale and higher than in previous studies ($M = 5.92–6.03$) using the YSEQ (Eys et al., 2009a, 2013).

The study findings offer a number of important practical implications for coaches. In particular, coaches should be mindful of how heightened positive emotions toward the group (ingroup affect) and task cohesion may potentially prove beneficial to desirable behavior toward teammates (i.e., more frequent prosocial behavior and less frequent antisocial behavior toward teammates) and opponents (i.e., less frequent antisocial behavior toward opponents). On the other hand, coaches need to be conscious that young athletes who strongly identify with the team in terms of connection and belonging (ingroup ties) and hold high perceptions of social cohesion may act more antisocially toward opponents and teammates. Given the findings linking task cohesion with adaptive behavior and the limited research on strategies to promote social identity (ingroup affect, ingroup ties) in sport, coaches and sport psychology practitioners working with young athletes should consider fostering task cohesion through team-building activities (e.g., goal setting) to build unity toward team objectives and goals (Senecal, Loughead, & Bloom, 2008). However, coaches must also recognize that sometimes it may be necessary to disrupt the bonding (ingroup ties, social cohesion) that is present on a team (c.f., Carron & Eys, 2012) if the team identity and resulting behavior promotes poor sportsmanship toward the opposition and/or teammates. Collectively, the study findings highlight the complexity of social identity and cohesion in relation to behavior toward teammates and opponents and the salient role of the coach to build and monitor the team social identity and promote desirable behavior to others.

This field study is not without limitations. First, the cognitive centrality dimension of the social identity measure had poor internal consistency and was therefore excluded. While previous empirical support for the social identity measure including the cognitive centrality subscale has been reported (Obst & White, 2005), this was an initial attempt to adapt the multidimensional social identity scale for the youth–sport context. Future research is needed to further refine the social identity measure for use in the sport context and determine whether the cognitive centrality dimension is relevant in this context. A second limitation was the attrition rate of 23% (i.e., reduction in N from 426 to 329) from participants who completed the questionnaire at Time 1 to those who then also completed it at Time 2 and Time 3. Although there does not appear to be a universally accepted rate of sample attrition over time for survey research, the attrition rate is acceptable (Fife-Schaw, 1995), and comparable with questionnaire research in sport conducted across three time points (e.g., 24% attrition rate over a 12-week period; Cresswell & Eklund, 2005). A third limitation was the self-report nature of the prosocial and antisocial behaviors in

sport. Future researchers could consider extending our findings by using observational techniques to assess antisocial and prosocial behaviors (e.g., Kavussanu, Stamp, Slade, & Ring, 2009; Ridgers, Stratton, & McKenzie, 2010) in research investigating social identity. A final limitation was the lack of manipulation of any study variables. This means that although the structural relationships tested were consistent with the causal relationships posited, we were not able to test causality using the current design. For example, the direction of causality could in fact be the opposite of that tested, with antisocial behavior influencing social cohesion. Further, through the current design we were not able to conclusively demonstrate mediation, only showing that the data supported the mediated effects demonstrated. As such, future research should look to progress the current findings through application of experimental designs that test the identified relationships. For example, experimental work could examine the effects of group-based interventions (e.g., team-building) specifically designed to foster group processes within a team (e.g., social identity, cohesion) on prosocial and antisocial sport behaviors.

While acknowledging these limitations, this study had a number of strengths, the first of which was the study's prospective design. Previous attempts to examine the social context and prosocial and antisocial behavior in sport have been predominantly based upon data collected at one time point. Although the present data do not permit us to test causal relationships, the time ordering of our data collections across a season were consistent with the hypothesized causal sequence. Another strength was the novel use of SIT (Tajfel & Turner, 1979) to examine prosocial and antisocial behaviors in youth sport. Previous research in sport has only examined SIT in relation to performance (Murrell & Gaertner, 1992) and interactions among team members (Zucchermaglio, 2005). Both the prospective nature of this study, and the introduction of SIT to this area of research make important and novel contributions to our understanding of prosocial and antisocial behavior in youth sport. A final strength was the examination of a potential mechanism (i.e., mediator) explaining the relationship between social identity and prosocial and antisocial behavior. As such, this study addressed calls by group dynamics researchers (e.g., Carron & Brawley, 2008) to move beyond description to investigate higher levels of research questions.

Conclusion

The social context plays a vital role in developing an individual's sense of self (McGrath, 1984) and determining moral thought and action (Bandura, 2002). This study examined how the important yet neglected role of sport teams may influence prosocial and antisocial behaviors in youth. Specifically, young athletes' perceptions of social identity associated with a youth sport team near the beginning of season were predictive of their prosocial and antisocial behaviors toward teammates and opponents at the end of a season. The study findings offer support for previous suggestions that next to family, sport teams are one of the most influential groups to which an individual can belong (Carron & Brawley, 2008). The study results provide preliminary evidence for the important role social identity may have in influencing the prosocial and antisocial behaviors of youth in sport, and the potential role of cohesion in explaining some of these effects.

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