# Social Identity in Sport: A Scoping Review of the Performance Hypothesis

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## Author Note

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Individuals' behaviors within sport contexts are shaped by the complex interaction between individual, social, environmental, and contextual factors (Haslam et al., 2020). Unlike previous theories that focus on the individual, *social identity theory* (Tajfel et al., 1979) has provided an understanding of the role that group belonging and identification can have upon an individual's own sense of the self. Social identity refers to "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). For example, one's social identity as a soccer player is formed by an internalized sense that one is part of a community of other soccer players and provides the basis for individuals to see each other with a sense of us and we (Haslam et al., 2012). Since its original conception over 40 years ago, researchers have sought to determine how social identity works across different fields, such as social, organizational, and health psychology (Haslam et al., 2020). Within the sport psychology literature, social identity theory has seen a rapid rise in interest from researchers in recent years. When searching on Web of Science using the terms "social ident* and sport", 80% of studies were published after 2010, demonstrating the rapid growth in recent attention given to social identity by sport researchers.

The association between social identity and performance—termed the *performance hypothesis*—represents one of the core principles within social identity in sport and exercise that has been hypothesized by researchers (5Ps in Haslam et al., 2020; *participation, performance, psychological and physical health, partisanship, and politics*). The performance hypothesis outlines that sport and exercise performance is shaped by social identification by way of the norms, values, resources, and goals associated with salient social identities. For example, an athlete who feels a strong connection to her basketball team will work harder during training and

matches so her team performs well. The same athlete may also be more encouraged to communicate with teammates based upon group norms or work towards shared goals that may increase self and collective efficacy. Furthermore, the performance hypothesis stipulates that while performance is arguably the critical outcome variable in sport, a focus on more process-based variables is also important given the myriad of factors that influence performance outcomes (Slater et al., 2020).

Empirical studies have shown that performance changes may arise from numerous factors such as social laboring (Slater et al., 2018), group cohesion (Carron et al., 1998), motivation (Greenaway et al., 2020), and leadership (Steffens et al., 2020). Researchers have postulated that social identity can provide the foundation for group behavior (Stevens et al., 2021) and may help to advance other theoretical contentions that explain group behavior and performance. In line with self-determination theory (SDT; Ryan & Deci, 2000) social identities may provide a way in which psychological needs such as relatedness, autonomy, and competence can be fulfilled (Greenaway et al., 2020). For example, a basketball player who feels a sense of *relatedness* (one basic need outlined in SDT and heavily tied to social identity) will be more motivated to attend practice because they are with people who they enjoy spending time with. Similarly, leadership can be described as a process whereby a leader can motivate group members in ways that encourage them to contribute to shared goals (Steffens et al., 2020). With regards to leadership theories such as transformational leadership (see, Arthur et al., 2017) and needs supportive leadership (see, Amorose & Anderson-Butcher, 2007), social identity can serve to encourage collective behavior. Leaders can direct individuals to strive towards goals by emphasising shared beliefs about the team as a whole (Steffens et al., 2020).

Reviews conducted on the influence of social identity in sport have been limited in the attention they have given to the performance hypothesis. For instance, Rees et al., (2015) conducted a review using a narrative approach to outline theoretical underpinnings behind social identity theory within sport and exercise. In their review, the authors offer support from other contexts such as organizational and fan behavior to suggest that social identity can provide the basis for group cohesion and leadership. The authors did not, however, provide an overview of empirical research to demonstrate how findings from organizational research have been applied to sport contexts. A more recent review of the social identity approach within sport and exercise contexts focused upon the social identity approach to leadership (Stevens et al., 2021). Social identity leadership is a group-based social influence process that revolves around a sense of shared social identity between leaders and followers (Haslam et al., 2020). In this leadership review, Stevens and colleagues focused on the contribution of principles of social identity leadership and how these principles can benefit performance and health. Similarly, Campo and colleagues (2019) provided a narrative review on emotions in group sport from a social identity perspective. This is a principle that falls under the performance hypothesis and the authors concluded that there is evidence supporting the influence of identity processes on emotions during competition. The authors note that the field of social identity is still in its infancy and that it warrants further investigation. Overall, these reviews highlight the need to investigate literature pertaining to performance hypothesis of social identity. To remain as close to the original theorizing of the performance hypothesis as possible, all outcome variables that have been conceived to mediate the social identity and performance relationship will be included, while variables that represent outcomes related to other principles (participation, psychological and physical health, partisanship, and politics) are excluded from this review (Haslam et al., 2020).

Despite the influential role of social identity in the literature, issues concerning the conceptualization and measurement of the construct have arisen. Within the social identity literature, there has been an ongoing discrepancy between researchers over the measurement of social identity. One difference in the conceptualization and measurement of social identity is the inclusion of self-definition (i.e., self-stereotyping and depersonalization). Self-definition refers to the perceived similarity between the individual (self) and others (group) in terms of an overarching group prototype (Postmes et al., 2013). Some researchers (e.g., Postmes et al., 2013; Turner et al., 1987) argue that self-stereotyping and homogeneity (i.e., all group members adhering to the group prototype) are salient and posit that it is only through identification that one is ready to self-categorize as an in-group member. These researchers also argued that the concept of identity and identification are best captured by self-investment alone (Postmes et al., 2013). This differing in opinions over the measurement of social identification is important to consider. Tenenbaum and Filho (2018) state that to move science in sport forward, measurements used must be both trustworthy and accurate, but also conceptually useful for testing the theoretical contentions about individual and group behavior. Furthermore, researchers have put forward various questionnaires which conceptualize social identification as both a unidimensional construct (e.g., Doosje et al., 1995; Postmes et al., 2013) and a multidimensional construct (e.g., Bruner & Benson, 2018[1]; Cameron, 2004; Leach et al., 2008). This difference in measurement allows researchers the ability to evaluate both general social identity strength, and cognitive components of social identity (Bruner & Benson, 2018). As such, to fully understand the relationship between social identity and performance, the need to have a better understanding

[1] It is worth noting that findings from Bruner and Benson (2018) indicate that the SIQS can be used as both a multi-dimensional construct or a global construct. Support for the global factor of social identity was observed when correlated residuals were included among the items of each subscale (Bruner & Benson, 2018).

of the conceptual measurement of social identification and how global and multidimensional measures are being used in the literature is needed.

Overall, we present a scoping review that considers the broader application of social identity and performance within sport contexts by identifying all relevant literature and synthesizing this literature in a systematic way. By synthesizing the literature in this way, a scoping review can assess conceptual, theoretical, and methodological trends, identify gaps, and inform future research directions (Sabiston et al., 2022). As such, this scoping review aimed to: (1) investigate and synthesize literature that has examined the social identity performance hypothesis, (2) examine how social identity has been measured within this literature, and (3) detect any gaps in the literature to identify potential future directions of research.

## Method

This review was carried out using the method and guidance from Sabiston et al.'s (2022) scoping review framework, consisting of eight stages: (1) create and consult with a stakeholder group, (2) identify the research question(s), (3) identify relevant studies, (4) create and register a protocol, (5) select and screen studies, (6) chart the data, (7) collate, summarize, and report the results, and (8) re-consult stakeholders and identify implications. Stages one through six will be presented in the method section of this paper while stages seven and eight are presented throughout the results section.

### Create and Consult with Stakeholder Group

We created and consulted with a small stakeholder group, via email and at international conferences, that consisted of researchers across various disciplines within sport psychology. Researchers were selected for the stakeholder group because the objective of the scoping review was to inform future research directives and to clarify measurement and conceptual theory within

the social identity literature. Stakeholders were consulted to help inform the research question and specific context in which the scoping review would focus. For example, after an initial consultation with the stakeholder group, the scope of the review was narrowed to focus only on the performance hypothesis.

**Identifying the Research Question**

As described in the introduction, the purpose of the review was to (1) investigate and synthesize literature that has examined the social identity performance hypothesis, (2) examine how social identity has been measured within this literature, and (3) detect any gaps in the literature to identify potential future directions of research.

**Identifying Relevant Studies**

The following four electronic databases were searched to identify articles: Web of Science, SCOPUS, SPORTSDiscus and PsychInfo. Due to lack of translation resources, the full search was restricted to English publications only. Adhering to the methodological framework outlined by Arksey and O'Malley (2005), an initial limited search was performed in November 2021 to help identify relevant studies and possible key words. We conducted an initial search of the SCOPUS and Web of Science electronic databases using the search query ("social identit*" OR "self?categori?ation") AND (sport). After this initial search, articles were screened by the research team to identify keywords that could be used to inform and refine the main search. For instance, several articles related to marketing and tourism were found in the initial search which allowed for these search terms to be excluded (i.e., reducing articles not relevant to the research question). A large body of literature relating to sports fan and spectator behavior was also identified, allowing for these terms to be excluded. As a result, the research team agreed it was appropriate to remove the terms spectator*, military, brand*, marketing, tourism, fan*, advertis*,

employ* and supporter*. This resulted in a final search of "(TITLE-ABS-KEY ( "social identi*" OR "self?categori?ation" ) ) AND ( TITLE-ABS-KEY ( sport ) ) AND NOT ( TITLE-ABS-KEY ( spectator* OR military OR brand* OR marketing OR tourism OR fan* OR advertis* OR employ* OR supporter* OR parent* OR well?being OR health)". The final search took place between June 2022 and February 2023 and specific database search terms and results can be found in Table S1.

A separate search using the same search terms as above was conducted on ProQuest to identify any missing grey literature and the initial search returned 1044 records. Following the removal of records not related to sport and/or athletes, 48 records remained. Title and abstracts were examined by the primary researcher and no additional studies were identified. A manual search was conducted by the primary researcher to identify any records that were excluded from the electronic database due to incomplete searches and/or technical errors (Arksey & O'Malley, 2005). A manual search was conducted on the reference list of the book, The New Psychology of Sport & Exercise: The Social Identity Approach (Haslam et al., 2020). We also conducted a manual search on reference lists from studies published after 2020. We felt this was important to consider given the wide range of studies that have been conducted since the publication of the book in 2020. No additional studies were identified by the manual search.

**Create and Register a Protocol**

The reporting standards for each stage of the framework were grounded in the 20-item checklist provided by The Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR; Tricco et al., 2018). The review was registered on the open science framework in November 2021, with a revised version uploaded in November

2022[2]. This can be found via the following link;
https://osf.io/6pvgs/?view_only=9f704e9dd6a3456092f9c1dde33994e4.

**Selecting Studies**

Records were assessed based on the inclusion and exclusion criteria identified by the research team and stakeholder group. Participants must have been individuals who were directly involved in the sport (i.e., athletes only). Study variables must have included social identity or athletic identity and at least one other variable associated with the performance hypothesis. All records that included a variable relating to any of the other four core hypotheses of social identity (*participation, psychological and physical health, partisanship, and politics)* were excluded. In such cases where it was not completely clear that variables were performance related (i.e., where all authors did not agree on the inclusion of a variable to relate to the performance hypothesis), we went back to Haslam et al. (2020) as our guide for these decisions. For instance, behavior (pro and anti-social) and youth development represented variables that were included in the participation principle. Therefore, we did not include these studies in this review. Records must have been original research (i.e., reviews and book chapter were excluded) and must have been conducted after 1979, which is when the first article regarding social identity theory was published. Furthermore, due to resource constraints, all records must have been in English. The second author confirmed the removal of records by the first author were accurate according to the exclusion criteria, with 100% agreement across raters. All records retained from initial database searches were exported to a referencing management software and Microsoft Excel for charting the data. Figure 1 provides a detailed flowchart of the selection and removal process based on the inclusion and exclusion criteria.

[2] The revised protocol document reflects a refinement in the research question. No changes were made to the method or protocol used throughout the review.

## Charting Data

Table S2 provides a standardized form of the extracted data from the retained records in this review. The following data were extracted: Sample, location, sport, basic design, social identity measure, and main findings. The second author confirmed that the extracted data by the author was accurate, with 100% agreement.

## Results

As illustrated in Figure 1, 401 records were identified in the initial retrieval process. After removal of duplicates, 280 records remained. Reviewing of titles to remove records that did not meet inclusion and exclusion criteria resulted in a remaining 89 records. A further 35 records were removed following the reviewing of abstracts. Finally, upon review of full-text documents, 13 were removed from the review. Reasons for exclusion are outlined in Figure 1, and included studies that did not contain original work, did not include a measure of social identity or variables that related to other principles (e.g., health or participation), or did not include participants relevant to this scoping review (e.g., coaches, fans, parents). This resulted in a total of 40 records included in the review, that were comprised of a total of 45 studies (five records were two-study reports: De Backer et al., 2011; Martiny et al., 2015; Miller et al., 2020; Murray et al., 2020; Rees et al., 2013).

Of the final 45 studies, 43 studies used quantitative methods (with eight of those studies employing an experimental design), one study used a qualitative approach (Cascagnette et al., 2021), while one study used a mixed method approach (Woolf & Lawrence, 2017). Of the quantitative studies, 24 used a cross sectional design and 11 employed a longitudinal design. Sample sizes ranged from 6 participants for the qualitative study and 11 – 2867 for the quantitative studies. Most studies used a mixed gender sample ($n$ = 26) while male only

participants were used in 14 studies and female only participants were used in five studies. Regarding ethnicity and sexual orientation, studies failed to consistently report these characteristics. Most studies focused on team-based sports (68%), five studies were focused on individual sport samples (10%), and seven studies used mixed samples (16%). The remaining studies either did not specify the sport used in the sample, or used an experimental task, such as dart throwing (6%). Main statistical analyses used included linear regression ($n$ = 7), ANOVA or MANOVA ($n$ = 6), structural equation modeling ($n$ = 21), multilevel linear models ($n$ = 6), cross lagged panel analysis ($n$ = 2), social network analysis ($n$ = 2), and other ($n$ = 2; wald test, group-actor interdependence model). Records published before the year 2000 were 2%, between the years 2000 and 2014 were 22%, between 2015 and 2019 were 45%. Finally, 31% of all records were published after 2020.

## Social Identity and Performance

Overall, literature identified within this scoping review provided evidence supporting the performance hypothesis. Firstly, we found evidence to support the relationship between social identity and objective and subjective performance. This relationship was also demonstrated to be facilitated through social loafing and social laboring. Secondly, the relationship between social identity and variables relating to the performance hypothesis were observed through two distinct categories, individual level variables and team level variables.

### *Performance*

Overall, eight studies examined the relationship between social identity and performance (Campo et al., 2019; Cascagnette et al., 2021; De Cuyper et al., 2016; Giske et al., 2017; Høigaard et al., 2017; López-Gajardo et al., 2021; Rees et al., 2013; Thomas et al., 2019). Rees et al. (2013) found that in a dart throwing task, participants' performances were significantly

higher when an in-group member was present in the room before any feedback was given compared to those who had an out-group member present. The authors reported a large effect size of $d = .85$ demonstrating a strong relationship between social identity and performance. Furthermore, when participants received discouraging feedback from an in-group member, performance decreased in a second trial when compared to the first (medium effect size of $d = .77$). These results were replicated in a second experiment and, together, these findings provide evidence to support the unique influence that social identity can have in shaping performance. Thomas et al. (2019) provide evidence to suggest that individual team identification (i.e., within team differences in social identity) predicted subjective team performance. Team level identification (i.e., variance in social identity attributed to differences between teams, rather than between individuals), on the other hand, predicted both subjective team performance and objective performance. In one of the only studies to look at how social identity influences performance within individual sports, Cascagnette et al. (2021) found that Nordic skiers reported the presence of social identity within the team (as well as sub-groups) and membership of these groups influenced subjective performance at various points in the season.

Social identity was reported in four studies to relate to social loafing or social laboring, which in-turn was reflected in performance. Social laboring occurs when an individual puts in more effort as part of a team compared to the amount of effort they would put in individually (Högaard et al., 2013). Conversely, social loafing has been described as the reduction of team performance due to a decrease in individual effort as group size increases. In an experimental study, Högaard et al. (2013) tested the relationship between social identity and social loafing amongst female track cyclists. In the low social identity condition (i.e., control group in which no prior team identity activities had been completed and participants did not wear team t-shirts),

participants perform worse when working as a team in both a one-minute time trial and a three-minute time trial compared to performance as an individual (a small effect size of $d$ = .12 was observed for the one-minute time trial and a medium effect size of $d$ = .55 was observed for the three-minute time trial). Conversely, in the high social identity condition (i.e., intervention group in which participants wore team t-shirts and took part in team activities prior to the task), participants performed better when working as a team in the three-minute trial compared to individual performance (medium effect size of $d$ = .57). No differences were found in the one-minute trial. Findings from this study indicate that high social identity can result in increases in social labouring which subsequently increases performance. Likewise, in a cross-sectional study of professional male cyclists, De Cuyper et al. (2016) found a significant positive relationship between social identity and social laboring, whereby participants gave greater effort (i.e., social laboring) when they identified more highly with their group. Giske et al. (2017) demonstrated that the relationship between shared mental models and social loafing was fully mediated by team identification. Finally, Lopez-Gajardo et al. (2021) observed a direct relationship between team identification and inside sacrifice. That is, when players identified with their team, they were more likely to sacrifice themselves for their team. Furthermore, the authors provided evidence to show that inside sacrifice mediated the relationship between team identification and perceived (team and personal) performance.

Only one study did not support the theorizing put forth by the majority of researchers from articles in this review. Campo et al. (2018) found that both personal (i.e., I) and social (i.e., my team) identities did not predict individual performance in a volleyball match. However, the authors note that this unusual finding may be related to the overall study design. Campo et al. (2018) measured athlete personal identity by asking participants to rate the level in which they

experienced emotions as an individual, and social identity was measured with response to level of emotions as a team while watching a video of a match played four days prior. This may explain the differing results from other studies in this review because the authors did not use a measure of social identity that measured athlete sense of self-investment or self-stereotyping that other studies commonly used. However, overall, there is evidence to show that social identity is positively related to both performance and perceptions of performance.

### *Individual Level Variables associated with the Performance Hypothesis*

A total of 13 studies found evidence supporting the relationship between social identity and individual level outcome variables that are associated with performance, including motivation and attendance, emotions, and outcomes related to the self.

**Motivation and Attendance.** Five studies examined social identity on motivation and attendance (Babić et al., 2015; Martin et al., 2018; Murray et al., 2022; Stevens et al., 2018, 2020). Murray et al. (2022) found a significant positive relationship between social identity and autonomous motivation (i.e., engaging in a behavior because it is perceived to be consistent with intrinsic goals or outcomes and stems from the self; $r = .40$). They also found a small negative, but non-significant, relationship between social identity and controlled motivation (i.e., engaging in behaviors based on an external motivation such as rewards or punishment; $r = -.13$). Furthermore, the relationship between social identity and autonomous motivation was mediated through physical self-concept ($b = 0.27$). These findings show that athletes can internalize their team identity into their own self-concept, shaping individual perceptions. Martin et al. (2018) found that higher perceptions of in-group ties predicted increased commitment ($\beta = .12$) and individual effort ($\beta = .14$), and in-group affect significantly predicted commitment ($\beta = .25$). Finally, both Stevens et al. (2018) and Stevens et al. (2020) found that group identification was

positively related to attendance ($r$ = .23 and $r$ =.48, respectively). Notably, it appears that social identification is positively and significantly related to intrinsic motivation and negatively related to forms of controlled motivation. Similarly, commitment has been defined as a "psychological construct reflecting the desire and resolve to persist in an endeavor over time" (Scanlan et al., 2009, p. 686). By this definition, social identity can motivate individuals to attend and maintain this attendance over time. These findings can add another depth of understanding to other theories of motivation, such as self-determination theory (Ryan & Deci, 2000), and suggests that social identity may go beyond these theories to support the optimal motivation for athletes.

**Emotions.** Four studies examined the relationship between social identity and emotions (Campo et al., 2019; Campo et al., 2018; Campo et al., 2019; Martiny et al., 2015). Campo et al. (2018) found that personal identities predicted unpleasant emotions experienced from athletes, with low levels of social identity predicting more unpleasant emotions. Campo et al. (2019) found that when identity was manipulated to a high social identity condition (i.e., high sense of group and social identification and focus on team level outcomes and performance), participants experienced more positive and more intense emotions than those in a high personal identity group (i.e., focus on personal performance). Cohen's $w$ effect sizes ranged from 0.026 to 0.396. They also found that participants in the high social identity group reported an increase in positive emotions over the course of a match compared to those in the low identity group ($w$ = 0.23). Campo and colleagues (2019) found that athletes identifying with both a sport (e.g., rugby) and a club or team (e.g., Leeds Rhinos) predicted pre-competition emotions towards both in-group and out-group members. Specifically, the more athletes identified with their sport the more they felt more positive and less negative emotions towards opponents. Club identity only predicted positive emotions towards opponents but not negative emotions. Conversely, club identity

increased positive emotions towards teammates and partners as well as lower negative emotions. Finally, Martiny et al. (2015) found a relationship between social identity and anxiety within female athletes. Within a ball dribbling task, the authors manipulated participants' identities into two groups, single identity whereby participants reported identity as a woman only (single social identity) and a dual identity whereby participants reported identity as a female basketball player (dual social identity). In the single identity condition, the higher participants scored on cognitive anxiety, the less accurate they were in the dribbling task ($\beta$ = -.45, $p$ = .008). In the dual identity condition, accuracy was not predicted by cognitive anxiety ($\beta$ = .22, $p$ = .41). These results suggest that having multiple social identities provides athletes with the resources that can act as a buffer from the negative effects of cognitive anxiety on performance. Results from these studies suggest that social identity not only influences the emotions that an athlete experiences but can provide a unique defense against the influence of negative emotions which in-turn may change performance outcomes.

**The Self.** Three studies provided evidence for how social identity is associated with variables relating to the self (Babic et al., 2015; Martin et al., 2018; Murray et al., 2022). Babic et al. (2015) found a negative correlation between self-identity and social identity amongst male track and field athletes ($r$ = -.46*)*. However, this result did not hold true for female athletes, suggesting that male athletes may internalize their social identity more than females. Secondly, Murray et al. (2022) found a significant correlation between social identity and physical self-concept (i.e., one's perception or evaluation of their physical ability and/or appearance; $r$ = .23). Finally, Martin et al. (2018) found at the individual level, in-group affect significantly predicted self-worth, while at the team-level, in-group ties predicted self-worth.

***Group Level Variables associated with the Performance Hypothesis***

A total of 26 studies provided evidence to show the relationship between social identity and group level outcomes. These included team confidence and collective efficacy; teamwork, group dynamics and cohesion; group goals; and leadership.

**Team Confidence and Collective Efficacy.** Five studies provided evidence that showed the positive relationship between social identity and collective efficacy or team confidence (Cassidy et al., 2014; Fransen et al., 2015; Fransen et al., 2016; Fransen et al., 2014; Murray et al., 2020). Three studies supported the positive relationship between social identification and collective efficacy. Fransen at al. (2016) reported a significant medium correlation of .34, while Murray et al. (2020) reported team identification significantly predicted collective efficacy ($b$ = .68). Results from Fransen et al. (2014) also supported the positive relationship between players' team identification to their collective efficacy beliefs ($\beta$ = .63). Similarly, Cassidy et al. (2014) found that team social identity was significantly related to team confidence. They also found that a coach social identity (i.e., how athletes identify with a team coach) was related to an athletes' self-esteem and motivation, but not individual sport confidence. However, it was unclear in this study as to what team or group participants were responding about as participants were recruited from a sport studies class. Finally, Fransen et al. (2015) found that the relationship between perceived team confidence that was expressed by the team leader and players' collective efficacy was partially mediated by team identification. These studies, conducted by Cassidy et al. (2014) and Fransen et al. (2015), provide an interesting insight into how the role of the others and meta-perceptions (i.e., how an individual perceives others' perceptions) may influence collective efficacy. As such, social identity may act as a mechanism in these relational perceptions.

**Teamwork, Group Dynamics, and Cohesion.** Nine studies provided evidence to support the positive relationship between social identity and teamwork, group dynamics, or

cohesion (Bruner et al., 2015, 2021; Campo et al., 2022; Chamberlain et al., 2021; DeBacker et al., 2011; DeBacker et al., 2022; Fransen et al., 2020; Worley et al., 2020). Both Worley et al. (2020) and DeBacker and colleagues (2022) found a significant relationship between social identity and cohesion ($\beta = .92$ and $r = .69$, respectively). Similarly, Fransen et al. (2020) reported that athletes who identified highly with the team reported good teamwork and higher satisfaction with team performance ($r = .51$ for teamwork and $r = .13$ for performance). Bruner et al. (2015) found that teams and individuals that had higher perceptions of outcome interdependence reported greater identification with the team. Finally, mediation analysis supported that coach-initiated role communication tactics related to changes in social identity strength which, in turn, was associated with higher levels of task and social cohesion (Chamberlain et al., 2021).

De Backer et al. (2011) found that perceptions of procedural justice (i.e., actual fairness in the processes that resolve disputes and allocate resources) within a team were positively related to team identification whereas distributive justice (i.e., perceptions of fairness) had no impact on athletes' team identification. Giske and colleagues (2017) found that male ice hockey players demonstrated a positive and significant association between shared mental models and team identification. Their research also showed that team identification fully mediated the relationship between shared mental models and social loafing. As such it seems that developing shared mental models can change a group of individual athletes into a coherent group that motivates them to exert high effort and reduced social loafing (Fielding & Hogg, 2000). Team socialization and high levels of social support were also found to be positively related to social identity strength (Bruner et al., 2021). Specifically, those with higher social support perceived significantly higher social identity compared with those in the average social support profile ($d = 0.67$), the diminished social support profile ($d = 1.60$), and the lower social support profile ($d =$

3.07). In addition, those in the average social support profile perceived significantly higher social identity compared with those in the diminished social support ($d$ = 0.83) and the lower social support profiles ($d$ = 2.02).

Only one study in this review examined the influence of the three dimensions of social identity on perceptions of coach-created motivational climates. Using a group-actor interdependence model, Campo et al. (2022) found a significant effect on an athlete's in-group ties and the team's in-group ties on an empowering motivational climate. Further, when athlete in-group affect was similar to that of the team, a negative perception of a disempowering motivational climate was reported. This result indicates that if the player's ingroup affect matched that of the group, perceptions of a disempowering motivational climate decreases when ingroup affect score is high.

**Goal Setting.** Within a longitudinal study, Tauber and Sassenberg (2012) found that, amongst male soccer players, weakly identified players adhered to unambitious and potentially harmful group goals, while strongly identified players remained focused on ambitious individual goals, which in turn benefitted the team and changed group goals.

**Leadership.** A total of six studies provided evidence to demonstrate how leadership processes may influence athletes' social identity (Bruner et al., 2022; De Cuyper et al., 2016; Fransen et al., 2016; Miller et al., 2020; Stevens et al., 2018; Stevens et al., 2020). Firstly, Fransen et al. (2016) found that coach and athlete leadership quality both significantly predicted athletes' team identification ($\beta$ = .39 for coach leadership and $\beta$ = .28 for athlete leadership). This relationship was stronger when athletes reported coach leadership quality rather than athlete leadership quality and may suggest that coaches can exert more influence on athletes' social identity when perceived quality is high. Miller et al. (2020), Stevens et al. (2018), and Stevens et

al. (2020) found that identity leadership behaviors predicted group identification in longitudinal studies. Finally, Bruner et al. (2022) found that the relationship between social identity leadership and perceived athlete social identity (i.e., how an athlete perceives another athlete) was found to be bidirectional, that is that identity leadership and social identification were related in both early and late season. The strongest relationship was found between early season in-group ties and late season social identity. This suggests that building a strong social identity may be more important than fostering social identity leadership behaviors in the early season.

Furthermore, four studies looked at the mediational role that group identity had between identity leadership and outcomes variables. Firstly, team identification was found by Fransen et al (2016) to mediate the relationship between coach leadership and collective efficacy, but not athlete leadership. Across two studies, Miller et al. (2020) found that the relationship between identity leadership and self-efficacy, approach goals (i.e., goals focused on positive outcomes), and perceived control was mediated by group identification. This mediation was only significant for an athlete's own group identification and relational identification (i.e., the sense of connection that an individual had with the leader) was not significant. However, they also found that the negative associations between identity leadership and avoidance goals were not significantly mediated by relational identification or group identification. Stevens et al. (2020) found that identity leadership showed no significant results on time two attendance or was not shown to be mediated by group identification. Finally, in the only study that looked at other traditional leadership processes, De Cuyper et al. (2016) found that team identification mediated the relationship between transformational leadership and social laboring.

**Measurement of Social Identity in the Literature**

The second objective of this scoping review was to examine how social identity has been measured with the literature and to evaluate the use of multidimensional constructs and unidimensional constructs as well as the theoretical inclusion of self-stereotyping. Firstly, eleven studies used questionnaires based on the scale used by Boen et al. (2008), De Backer et al. (2011), and Doosje et al. (1995). Three studies used the four-item scale of social identity (FISI; Postmes et al., 2013) to measure social identity (Lavallee et al., 2019; Stevens et al., 2018; 2020), while only one study used a one-item measure to measure social identity (Campo et al., 2018). All of these measures assessed the emotional connection to a group or a team and did not contain any items that measured self-stereotyping and group homogeneity.

Nine of the studies used the Social Identity in Sport Questionnaire (SIQS; (Bruner & Benson, 2018) to measure social identity. The SIQS was developed based upon Cameron's (2004) theorizing of social identity and is comprised of 9 items that measure three dimensions of social identity: in-group ties, in-group affect, and cognitive centrality. The original version of the measure contained an additional 3 items that were removed when psychometric properties were established. Notably, one item was removed ('I have a lot in common with other members in this team') because the item appeared to capture similarity with teammates. This suggests that the authors believe social identity should be captured from a self-investment perspective (Bruner & Benson, 2018). Furthermore, five studies used the global score of social identity (Bruner et al., 2021; Chamberlain et al., 2021; Fransen et al., 2020; Murray et al., 2022; Worley et al., 2020), while three studies used the separate dimensions of social identity (Campo et al., 2022; Martin et al., 2018; Rodrigues et al., 2019). In addition, one study (Bruner et al., 2022) used a three-item measure that had one-item from the SIQS for each dimension of social identity.

Six studies used the athletic identity scale (AIMS; Brewer et al., 1993) to measure social identity. While the AIMS was originally intended to be used as a unidimensional measure, researchers have since showed three subscales included in the scale: social identity, exclusivity, and negative affectivity (Brewer & Cornelius, 2008). However, items included in the scale do not ask athletes to rate how similar they are to other athletes and therefore it can be suggested that the AIMS measures social identity from a self-investment theoretical basis.

The in-group identification scale (Leach et al., 2008) was used by two studies (Murray et al., 2020; Zumeta et al., 2016). The in-group identification scale is a 14-item measure comprising 10 items that measure self-investment dimensions and 4 items that measure self-stereotyping. Although some researchers have validated the use of the 10-items of self-investment as a measure of social identification (e.g., Postmes et al., 2013), both studies within this review used the full 14-items to obtain one global social identity score.

Cassidy et al. (2014) created a 10-item measure based upon items from 13 identity scales across multi-settings. This measure included items pertaining to self-stereotyping (e.g., asking participants to rate member similarity). Thomas et al. (2019) also created a 6-item measure based upon measures from a range of previous measures such as Cameron (2004) and Leach et al. (2008). The measure included items pertaining to feelings of solidarity with the group, cognitive centrality, and self-stereotyping and was used to obtain one global social identity score.

In conclusion, the majority of studies included in this scoping review (90%) did not include items that measured self-stereotyping and in-group homogeneity. The remaining studies (10%) included this as a facet of social identity and conducted analyses on one global score. Moreover, most studies conceptualized social identity as a global score with only those who used

the AIMS (*n* = 6), three studies using the SIQS (Bruner et al., 2015; Campo et al., 2022; Martin et al., 2018) and one study by Bruner et al. (2022) using dimensional measures.

## Discussion

The purpose of the review was to (1) investigate and synthesize literature that has examined the social identity performance hypothesis, (2) examine how social identity has been measured within this literature, and (3) detect any gaps in the literature to identify potential future directions of research. The performance hypothesis outlines that sport performance is shaped by social identification by way of the norms, values, resources, and goals associated with salient social identities. Results from this review provide evidence to demonstrate how the current state of literature helps to understand how the performance hypothesis works amongst athletes. In this section, findings from this review are discussed and future research directives are suggested.

While no studies included in this review explicitly measured or tested group norms, several studies do provide evidence to infer that group norms may influence the social identity and performance relationship. Research from Stevens and colleagues (2018; 2020), for example, found that group identification was positively related to attendance, while Murray and colleagues (2020) found that athletes can internalize their team identity into their own self-concept, shaping individual perceptions. As such, social identification and group norms may work together to create an interaction effect which in turn helps shape the behaviors of group members (Slater et al., 2020). Research by Terry and Hogg (1996) speaks more directly to this interaction effect, as they found that university students' perceptions of their friends' exercise-related norms influenced their own exercise intentions. With regards to performance, social identity can provide athletes with the ability to internalize group norms into their own self-concept,

encouraging athletes to attend practices (Stevens et al., 2019; 2020), give more effort during training and matches (Martin et al., 2019) and be more motivated to practice skills outside of training (Murray et al., 2018).

Along similar lines, a complementary body of work relating to social identity principles has highlighted the relationship between social identification amongst group members and group cohesion (Hogg, 1993). Hogg claimed that individuals are more likely to feel a deep psychological connection to the other members of a group (i.e., group cohesion) when their sense of self is entwined with that group (i.e., social identity). Results from this scoping review provide evidence to support this theorizing and emphasize the influential role that social identification has upon group cohesion. Results demonstrated that social identity was significantly related to cohesion (DeBacker et al., 2022; Worley et al., 2020) and teamwork (Fransen et al., 2020). These results also align with the original theorizing from Carron and colleagues who defined group cohesion as ‘a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs’ (Carron et al., 1998, p. 213). Carron and Spink (1993) cited Tajfel and Turner's (1979) seminal work in conveying the conceptual bases for their model, so it is not surprising that this model has significant points of contact with social identity theory. As such, this review has synthesized evidence that supports theoretical conjecture and has found that when individuals join certain groups, they begin a process of social categorization that results in them developing a sense of 'we,' which then feeds into a sense of cohesiveness, fostering group norms and performance benefits.

The shared sense of *we-ness* that can arise from social identity is not only important for the development of group norms which influence performance, but also the development of

shared values that direct individual behaviors. This was supported by studies included in this review. For instance, De Backer et al. (2011) found support to suggest that perceptions of procedural justice (i.e., actual fairness in the processes that resolve disputes and allocate resources) within a team were positively related to team identification whereas distributive justice (i.e., perceptions of fairness) had no impact on athletes' team identification. This suggests that when group values are perceived as fair, group identification increases. Team socialization and high levels of social support were also found to be positively related to social identity strength (Bruner et al., 2021). Therefore, common values held by groups and teams can provide an opportunity for athletes to experience heightened levels of identification, which, in-turn, can provide the basis for performance increases amongst athletes.

The performance hypothesis of social identity outlines that the relationship between social identity and performance can be shaped through group goals. In this regard, results from the scoping review provide initial evidence of how this may work amongst athletes. Firstly, one study did look at the influence that social identity had upon group goals and found that weakly identified players adhered to unambitious and potentially harmful group goals while strongly identified players remained focused on ambitious goals, which in turn benefitted the team and improved group goals (Tauber & Sassenberg, 2012). This provides initial evidence to support the performance hypothesis, although more evidence is needed to fully understand this relationship. Secondly, evidence was found to suggest that leaders and coaches may be able to foster social identity to encourage positive group goals. For instance, leadership has been defined as a leader's ability to motivate group members in ways that encourage them to contribute to shared goals (Steffens et al., 2020). Our results demonstrate that leadership was significantly related to social identification amongst athletes. Social identity was also found to be a mediator between social

identity leadership and several outcome variables including goals (Miller et al., 2020). This is important as it suggests that social identity can provide the basis for leaders to exert social influence onto others to help contribute to shared goals (Turner, 1991). In summary, social identity can provide the opportunity for athletes to adhere to ambitious group goals that are beneficial to performance and this opportunity can be harnessed by leaders.

Social identity salience was found to be a key determinant in performance. For instance, when both positive and negative feedback was given by in-group members performance changes were demonstrated (Rees et al., 2013). This indicates that the social identity that is most salient is important when considering who will influence how an athlete receives feedback. Secondly, results from this review support original contentions of social identity theory researchers who postulate that multiple social identities may help athletes to cope with threats related to a single identity (act as a buffer; Jetton et al., 2012). The salience of a specific social identity results from a context-sensitive process that leads people to see themselves as sharing category membership with others to a greater or lesser extent in the situation at hand (Hogg & Turner, 1985). More specifically, social identity salience is viewed as an interactive product of a person's internal readiness to employ a specific self-categorization and how it fits with the external context (Oakes et al., 1994). By an athlete holding more than one social identity, it allows the opportunity for that athlete to yield the benefits of an identity that is more situated to the external context (e.g., upon athlete retirement).

Finally, a common theme found from this review was the influence that social identity can have upon an athletes own individual cognitions, which in-turn may influence both objective and subjective performance. Results from this review found 13 studies to demonstrate the relationship between social identity and individual level outcome variables that are associated

with the performance hypothesis, including motivation, emotions and outcomes related to the self (i.e., self-esteem and self-concept). While these results may fit into the categories described above such as group norms or values, it appears that social identity can directly result in a change in an individual's own cognitions. These results align with *social cognitive theory* (SCT; Bandura, 1978) and as a core contention of SCT, Bandura suggests that human behavior, personal factors (such as cognition), and environmental factors both influence and are influenced by each other. Furthermore, Bandura postulates that thoughts and cognitions are a central substrate of motivation and behavior. Therefore, it is plausible to suggest that social identity may influence human agency and, as Bandura (2008) states, depending on an athlete's social identity, the social groups in which they belong can both aid or undermine personal cognitions.

With respect to the conceptual measurement of social identity, results from this review support the use of measures that do not include self-stereotyping as 90% of all studies in this review did not use items that measured self-stereotyping and in-group homogeneity. One conceptual definition that some researchers have postulated, that also aligns well with the results from this study, is that conceptualized social identification is the "positive emotional valuation of the relationship between self and in-group" (Postmes et al., 2013, p. 599). The inclusion of self-stereotyping and in-group homogeneity (i.e., how similar group members are to one another; Postmes et al., 2013) would be interesting to investigate with respect to social identity salience and determine under what conditions an individual chooses to self-stereotype. Furthermore, only five studies conceptualized social identity using the three dimensions of in-group ties, in-group affect and cognitive centrality. Cameron's (2004) original theorizing noted that a three-factor model fitted the data better than a unidimensional model of social identity and indeed, results from this review do suggest that the three dimensions of social identity do have different

predictive effects upon athlete outcomes. For instance, Martin et al. (2018) found that higher perceptions of in-group ties predicted individual effort, whereas in-group affect significantly predicted commitment. Tajfel's (1978) original definition of social identity, can be interpreted as pointing toward both three dimensions (awareness, evaluation, and emotion) or one overall dimension. Therefore, it is important for future research to clearly state the conceptual reasoning for the use of a unidimensional or a multidimensional measure.

There were several conceptual areas that were missing within this review and provide future research avenues for social identity and the performance hypothesis within sport. Results from this review imply that it may not only be an athlete's social identity that is important when determining performance, but it may also be the similarity between the athlete and the group. Specifically, Campo et al.'s (2022) research touched upon the unique influence that perceptions of group social identity similarity can have upon an athlete's individual cognitions and perceptions of how they perceive a motivational climate. While this study did not specifically measure perceived similarity, it does suggest an opportunity for future research to assess the relationship between social identity and perceived similarity of social identity to others. This similarity is referred to as homogeneity of identity and ranges on a scale from highly homogenous (i.e., the same) to highly heterogeneous (i.e., different). Tajfel and Turner (1986) argue that social identity and group identification are not simply products of existing intragroup relations or just determinants of evaluation and behavior. Rather the interplay of the two contributes to the dynamics of intergroup relations. This interplay between individual evaluations and behavior provides evidence to suggest that meta-perceptions (i.e., an individual's view of how he or she is seen by others; Kenny, 1994) and meta-accuracy (i.e., the degree to which these meta-perceptions are accurate; Kenny, 1994) may be present within social identification and

warrant's future research. Habeeb (2020) noted that this conceptual area has received little attention from the sports psychology literature and that was confirmed from the results within this review. As such, this provides an exciting area for future research to investigate how meta-perception and meta-accuracy might change how the performance hypothesis works amongst athletes.

Results from this review suggest that social identity can provide the basis for the core contentions mentioned in SCT (Bandura, 1978). However, while results from this review demonstrate that social identity is significantly related to collective efficacy, no research considered the influence of relational efficacy perceptions, providing an area for future research. Specifically, self-efficacy is an individual's belief that they can complete a given task despite obstacles and is widely recognized as a foundational cognition underpinning good performance (Moritz et al., 2013). With recognition that people rarely perform their daily tasks and activities in isolation, but in social and interdependent settings, the efficacy literature explains a range of efficacy beliefs that emerge and exert influence within relational and group settings (Jackson et al., 2008). In particular, other efficacy is an individual's beliefs about a relational partner's abilities relative to desired outcomes (e.g., I am confident in my partner). Relation inferred self-efficacy (RISE) beliefs are the individual's appraisal of how his or her own capabilities relative to desired outcomes are regarded by the relational partner (e.g., I think my partner thinks I am confident; Lent & Lopez, 2002). In the sports domain, this might involve an individual holding a set of efficacy beliefs about not only themselves, but also coaches and teammates. These beliefs are associated with interpersonal outcomes such as motivation, enjoyment, and performance and intra-personal outcomes such as commitment, communication, and effort (Habeeb, 2020; Habeeb et al., 2019 Jackson et al., 2011; Jackson & Beauchamp, 2010; Moritz et al., 2013). As such,

given how an individual's own self-efficacy can both be affected and affect the relationships in which he or she is in, it is important to consider how social identification may influence efficacy perceptions.

The need to fully understand how social identity works within individual sports was further highlighted by this review. Of the 45 studies included in this review, only ten percent looked at social identity within individual sports highlighting a conceptual area that has been underrepresented in the social identity literature. Cascagnette et al. (2021) found that participants reported the presence and influence of social identity within a Nordic ski team. Findings from the study also suggest that a single team member, whether it is an athlete or coach, had the power to influence the team dynamics within the entire team. Participants explained that one athlete having a negative mindset and projecting that towards their teammates can influence both team cohesion and individual mindsets. This provides a small insight into how social identity may work within individual sports and the dyadic relationship between coaches and athletes and athletes within a larger team. This is an important area to understand given that interdependence within individual and team sports can widely differ.

Finally, results from this review highlighted that self-reported measures were the most represented approach for measurement of social identity. An important development and area for future research within the field of social identity and performance is employing the use of alternative methods, such as experimental sampling methods (ESM; Herbison et al., 2021). Examples of ESM that have been used within social identity and youth sport include the use of daily diaries (Benson & Bruner, 2018) and electronically activated recorder (Herbison et al., 2020; 2021). Observational methods such as these will help to address the issue of biases inherent in self-report measures and allow for a deeper understanding into the complexity of

social and environmental factors that influence social identity and performance. Furthermore, the use of a change-sensitive methodology will facilitate insight into whether there are within-person differences in variables associated with performance (e.g., communication, efficacy, cohesion), and whether such differences are systematically associated with performance.

Although this review is the first to offer a scoping perspective into social identity performance hypothesis, it is not without its limitations. Firstly, due to the methodology used, there is the possibility that studies relevant to this review may have been missed. This may have occurred for several reasons such as search terms, databases and keywords used, or the exclusion of studies written in languages other than English. However, the first author attempted to be thorough in the literature search by employing a pilot test of keywords and searches, using multiple search strategies (both manual and electronic) to identify literature, and consulting with all other researchers involved in the project to try and mitigate any errors. Finally, as this review was focused upon the performance hypothesis in sport, there is a need to synthesize and collate data on social identity relating to the remaining four Ps (participation, psychological and physical health, partisanship, and politics; Haslam et al., 2020). For instance, in our search we found several studies that related to youth sport development and behavior, which are variables that are included within the participation principle. Researchers in this area have highlighted the positive association between social identity and pro-social behavior (e.g., Bruner et al., 2014; Bruner et al., 2018), and social identity and positive youth development (e.g., Bruner et al., 2017). Reviews focused on these variables are important to conduct to help fully understand the influence that social identity can have upon athlete development and longevity.

In conclusion, the performance hypothesis of social identity provides a unique understanding into the way that sport performance is shaped by way of the norms, values,

706 resources, and goals associated with salient social identities. Social identity not only provides a
707 basis for explanation of performance gains in sport, but also provides the next generation of
708 research an exciting foundation that informs how athletes' social groups may influence many
709 aspects of both personal and group functioning.

## References

Amorose, A. J., & Anderson-Butcher, D. (2007). Autonomy-supportive coaching and self-determined motivation in high school and college athletes: A test of self-determination theory. *Psychology of sport and exercise*, *8*(5), 654-670. https://doi.org/10.1016/j.psychsport.2006.11.003

Arthur, C. A., Bastardoz, N., & Eklund, R. (2017). Transformational leadership in sport: Current status and future directions. *Current Opinion in Psychology*, *16*, 78-83 https://doi.org/10.1016/j.copsyc.2017.04.001

Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*, *8*(1), 19–32. https://doi.org/10.1080/1364557032000119616

Babić, V., Sarac, J., Missoni, S., & Sindik, J. (2015). Athletic Engagement and Athletic Identity in Top Croatian Sprint Runners. *Collegium Antropologicum*.

Bandura, A. (1978). Self-efficacy: Toward a unifying theory of behavioral change. *Advances in Behaviour Research and Therapy*, *1*(4), 139–161. https://doi.org/10.1016/0146-6402(78)90002-4

Bandura, A. (2008). An agentic perspective on positive psychology. *Positive Psychology*, *1*, 167-196.

Benson, A.J., & Bruner, M.W. (2018). How peer behaviours relate to adolescent social development: A daily dairy approach with youth hockey teams. *Psychology of Sport and Exercise*, *34*, 119-127. http://dx.doi.org/10.1016/j.psychsport.2017.10.008

Boen, F., Vanbeselaere, N., Pandelaere, M., Schutters, K., & Rowe, P. (2008). When Your Team is Not Really Your Team Anymore: Identification with a Merged Basketball Club., *20*(2), 165–183. https://doi.org/10.1080/10413200701805711

Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic identity: Hercules' muscles or Achilles heel?. *International Journal of Sport Psychology*. https://doi.org/10.1037/t15488-000

Bruner, M. W., Balish, S. M., Forrest, C., Brown, S., Webber, K., Gray, E., McGuckin, M., Keats, M.R., Rehman, L. & Shields, C. A. (2017). Ties that bond: youth sport as a vehicle for social identity and positive youth development. *Research Quarterly for Exercise and Sport, 88*(2), 209-214. doi:10.1080/02701367.2017.1296100

Bruner, M.W., Boardley, I., & Côté, J. (2014). Social identity and prosocial and antisocial behavior in youth sport. *Psychology of Sport and Exercise*, *15,* 56-64. doi:10.1016/j.psychsport.2013.09.003

Bruner, M.W., Boardley, I.D., Benson, A.J., Wilson, K.S., Root, Z, Turnnidge, J., Sutcliffe, J., & Côté, J. (2018). Disentangling the relations between social identity and prosocial and antisocial behavior in competitive youth sport. *Journal of Youth and Adolescence, 47*(5), 1113-1127. doi:10.1007/s10964-017-0769-2

Bruner, M. W., & Benson, A. J. (2018). Evaluating the psychometric properties of the Social Identity Questionnaire for Sport (SIQS). *Psychology of Sport & Exercise*, *35*, 181–188. https://doi.org/10.1016/j.psychsport.2017.12.006

Bruner, M. W., Eys, M., Evans, B. M., & Wilson, K. (2015). Interdependence and Social Identity in Youth Sport Teams. *Journal of Applied Sport Psychology*, *27*(3), 351–358. https://doi.org/10.1080/10413200.2015.1010661

Bruner, M. W., McLaren, C. D., Mertens, N., Steffens, N. K., Boen, F., McKenzie, L., Haslam, S. A., & Fransen, K. (2022). Identity leadership and social identification within sport teams over a season: A social network analysis. *Psychology of Sport and Exercise*, *59*. https://doi.org/10.1016/j.psychsport.2021.102106

Bruner, M. W., McLaren, C., Swann, C., Schweickle, M. J., Miller, A., Benson, A., Gardner, L. A., Sutcliffe, J., & Vella, S. A. (2021). Exploring the Relations Between Social Support and Social Identity in Adolescent Male Athletes. *Research Quarterly for Exercise & Sport*, *92*(3), 566–572. https://doi.org/10.1080/02701367.2020.1737629

Cameron, J. (2004). A Three-Factor Model of Social Identity. *Self and Identity*, *3*(3). https://doi.org/10.1080/13576500444000047

Campo, M., Champely, S., Louvet, B., Rosnet, E., Ferrand, C., Pauketat, J. V. T., & Mackie, D. M. (2019). Group-Based Emotions: Evidence for Emotion-Performance Relationships in Team Sports. *Research Quarterly for Exercise & Sport*, *90*(1), 54–63. https://doi.org/10.1080/02701367.2018.1563274

Campo, M., Louvet, B., & Harabi, S. (2022). Dimensions of social identification with the team as predictors of the coach-created training climate in rugby: A group-actor partner interdependence modelling perspective. *Psychology of Sport & Exercise*, *59*. https://doi.org/10.1016/j.psychsport.2021.102104

Campo, M., MacKie, D., Champely, S., Lacassagne, M.-F., Pellet, J., & Louvet, B. (2019). Athletes' social identities: Their influence on precompetitive group-based emotions. *Journal of Sport and Exercise Psychology*. https://doi.org/10.1123/JSEP.2018-0282

Campo, M., Mackie, D. M., & Sanchez, X. (2019). Emotions in group sports: A narrative review from a social identity perspective. *Frontiers in Psychology*, *10*, 666. https://doi.org/10.3389/FPSYG.2019.00666/BIBTEX

Campo, M., Martinent, G., Pellet, J., Boulanger, J., Louvet, B., & Nicolas, M. (2018). Emotion–performance relationships in team sport: The role of personal and social identities. *International Journal of Sports Science & Coaching*, *13*(5), 629–635. https://doi.org/10.1177/1747954118785256

Cascagnette, J. C. W., Benson, A. J., Cruwys, T., Haslam, S. A., & Bruner, M. W. (2021). More than just another bib: group dynamics in an elite Nordic ski team. *Journal of Sport Sciences*, *39*(6), 638–652. https://doi.org/10.1080/02640414.2020.1840040

Cassidy, T., Cummins, P., Breslin, G., & Stringer, M. (2014). Perceptions of coach social identity and team confidence, motivation and self-esteem. *Psychology*, *5*(10), 1175–1184. https://doi.org/10.4236/psych.2014.510130

Carron, A. V., Brawley, L. R., & Widmeyer, W. N. (1998). The measurement of cohesiveness in sport groups. In J. L. Duda (Ed.), Advances in sport and exercise psychology measurement (pp. 213-226). Morgantown, WV: Fitness Information Technology.

Carron, A. V., & Spink, K. S. (1993). Team building in an exercise setting. Sport Psychologist, 7(1). https://doi.org/10.1123/tsp.7.1.8

Chamberlain, J. J., Hall, C. R., & Benson, A. J. (2021). How Team Socialization Processes Relate to Youth Ice Hockey Players' Social Identity Strength and Cohesion. *Sport Exercise and Performance Psychology*, *10*(4), 475–488. https://doi.org/10.1037/spy0000262

De Backer, M., Boen, F., Ceux, T., De Cuyper, B., Høigaard, R., Callens, F., ... & Broek, G. V. (2011). Do perceived justice and need support of the coach predict team identification and cohesion? Testing their relative importance among top volleyball and handball players in Belgium and Norway. *Psychology of Sport and Exercise*, *12*(2), 192-201. https://doi.org/10.1016/j.psychsport.2010.09.009

De Backer, M., Van Puyenbroeck, S., Fransen, K., Reynders, B., Boen, F., Malisse, F., & Vande Broek, G. (2022). Does fair coach behavior predict the quality of athlete leadership among Belgian volleyball and basketball players: The vital role of team identification and task cohesion. *Frontiers in Psychology*, *12*, 645764. https://doi.org/10.3389/fpsyg.2021.645764

De Cuyper, B., Boen, F., Van Beirendonck, C., Vanbeselaere, N., & Fransen, K. (2016). When do elite cyclists go the extra mile? Team identification mediates the relationship between perceived leadership qualities of the captain and social laboring. International Journal of Sport Psychology, 47(4), 355-372.

Doosje, B., Ellemers, N., & Spears, R. (1995). Perceived intragroup variability as a function of group status and identification. *Journal of Experimental Social Psychology*, *31*(5), 410–436. https://doi.org/10.1006/jesp.1995.1018

Fransen, K., Decroos, S., vande Broek, G., & Boen, F. (2016). Leading from the top or leading from within? A comparison between coaches' and athletes' leadership as predictors of team identification, team confidence, and team cohesion. *International Journal of Sports Science and Coaching*. https://doi.org/10.1177/1747954116676102

Fransen, K., Haslam, S. A., Steffens, N. K., Vanbeselaere, N., de Cuyper, B., & Boen, F. (2015). Believing in "us": Exploring leaders' capacity to enhance team confidence and performance by building a sense of shared social identity. *Journal of Experimental Psychology: Applied*, *21*(1), 89–100. https://doi.org/10.1037/xap0000033

Fransen, K., McEwan, D., & Sarkar, M. (2020). The impact of identity leadership on team functioning and well-being in team sport: Is psychological safety the missing link? *Psychology of Sport & Exercise*, *51*. https://doi.org/10.1016/j.psychsport.2020.101763

Fransen, K., Vanbeselaere, N., de Cuyper, B., Coffee, P., Slater, M. J., & Boen, F. (2014). The impact of athlete leaders on team members' team outcome confidence: A test of mediation by team identification and collective efficacy. *Sport Psychologist*. https://doi.org/10.1123/tsp.2013-0141

Giske, R., Rodahl, S. E., Haugen, T., & Høigaard, R. (2017). Shared mental models, role ambiguity, team identification and social loafing in elite sports groups: A mediation analysis. *Sport & Exercise Psychology Review*, *13*(2), 2–12.

Greenaway, K, H., Sankaran, S., Wolf S, A., Mitchell, J (2020) Motivation. In Haslam, S. A., Fransen, K., & Boen, F. (Eds.), The new psychology of sport and exercise: The social identity approach (pp. 95-110) Sage Publishing.

Habeeb, C. M. (2020). The tripartite model of relational efficacy beliefs in sport: a scoping review. In *International Review of Sport and Exercise Psychology*. Routledge. https://doi.org/10.1080/1750984X.2020.1815233

Habeeb, C. M., Eklund, R. C., Coffee, P (2019). Reciprocal relationships between efficacy and performance in athlete dyads: Self-, other-, and collective constructs. Journal of Sport and Exercise Psychology, 41(3), 147-158. https://doi.org/10.1123/jsep.2018-0248.

Haslam, S. A., Fransen, K., & Boen, F. (2020). *The new psychology of sport and exercise: The social identity approach*. Sage.

Haslam, S. A., Reicher, S. D., & Levine, M. (2012). When other people are heaven when other people are hell: How social identity determines the nature and impact of social support. In *The social cure* (pp. 157–174). Psychology Press.

Herbison, J. D., Martin, L. J., Slatcher, R. B., Boardley, I., Benson, A., Sutcliffe, J., & Bruner, M. W. (2021). The electronically activated recorder (EAR): A novel approach for examining social environments in youth sport. *International Review of Sport and Exercise Psychology*, *14*(1), 260-277.https://doi.org/10.1080/1750984X.2020.1790025

Herbison, J. D., Martin, L. J., Benson, A. J., McLaren, C. D., Slatcher, R. B., Boardley, I. D., & Bruner, M. W. (2021). “Beyond the Rink”: A Multilevel Analysis of Social Identity Behaviors Captured Using the Electronically Activated Recorder. *Journal of Sport and Exercise Psychology*, *43*(6), 441-449. https://doi.org/10.1123/jsep.2020-0343

Hogg, M. A. (1993). Group Cohesiveness: A Critical Review and Some New Directions. *4*(1), 85–111. https://doi.org/10.1080/14792779343000031

Hogg, M. A., & Turner, J. C. (1985). Interpersonal attraction, social identification and psychological group formation. *European journal of social psychology*, *15*(1), 51-66. https://doi.org/10.1002/ejsp.2420150105

Høigaard, R., Boen, F., De Cuyper, B., & Peters, D. M. (2013). Team identification reduces social loafing and promotes social laboring in cycling. International Journal of Applied Sports Sciences, 25(1), 33-40.

Jackson, B., & Beauchamp, M. R. (2010). Efficacy Beliefs in Coach–Athlete Dyads: Prospective Relationships Using Actor–Partner Interdependence Models. *Applied Psychology*, *59*(2), 220–242. https://doi.org/10.1111/J.1464-0597.2009.00388.X

Jackson, B., Dimmock, J. A., Gucciardi, D. F., & Grove, J. R. (2011). Personality traits and relationship perceptions in coach–athlete dyads: Do opposites really attract? *Psychology of Sport and Exercise*, *12*(3), 222–230. https://doi.org/10.1016/J.PSYCHSPORT.2010.11.005

Jackson, B., Knapp, P., & Beauchamp, M. R. (2008). Origins and Consequences of Tripartite Efficacy Beliefs Within Elite Athlete Dyads. *Journal of Sport and Exercise Psychology*, *30*(5), 512–540. https://doi.org/10.1123/JSEP.30.5.512

Jetten, J., Haslam, C., & Haslam, A.S. (Eds.). (2011). The Social Cure: Identity health and well-being (1st ed.). Psychology Press. https://doi.org/10.4324/9780203813195

Kenny, D. A. (1994). *Interpersonal perception: A social relations analysis*. Guilford Press.

Leach, C. W., van Zomeren, M., Zebel, S., Vliek, M. L. W., Pennekamp, S. F., Doosje, B., Ouwerkerk, J. W., & Spears, R. (2008). Group-level self-definition and self-investment: A hierarchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology, 95*(1), 144–165. https://doi.org/10.1037/0022-3514.95.1.144

Lent, R. W., & Lopez, F. G. (2002). Cognitive ties that bind: A tripartite view of efficacy beliefs in growth-promoting relationships. *Journal of Social and Clinical Psychology, 21*(3), 256–286. https://doi.org/10.1521/jscp.21.3.256.22535

López-Gajardo, M. A., Pulido, J. J., Tapia-Serrano, M. A., Ramírez-Bravo, I., & Leo, F. M. (2021). Is Perceived Athlete Leadership Quality Related to Inside Sacrifice and Perceived Performance in Team Sports? The Mediating Role of Team Identification. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2021.662250

Martin, L. J., Balderson, D., Hawkins, M., Wilson, K., & Bruner, M. W. (2018). The influence of social identity on self-worth, commitment, and effort in school-based youth sport. *Journal of Sports Sciences*, *36*(3), 326-332. https://doi.org/10.1080/02640414.2017.1306091

Martiny, S. E., Gleibs, I. H., Parks-Stamm, E. J., Martiny-Huenger, T., Froehlich, L., Harter, A.-L., & Roth, J. (2015). Dealing with negative stereotypes in sports: the role of cognitive anxiety when multiple identities are activated in sensorimotor tasks. *Journal of Sport & Exercise Psychology*, *37*(4), 379–392. https://doi.org/10.1123/jsep.2014-0284

Miller, A. J., Slater, M. J., & Turner, M. J. (2020). Coach identity leadership behaviours are positively associated with athlete resource appraisals: The mediating roles of relational and group identification. *Psychology of Sport and Exercise*, *51*. https://doi.org/10.1016/j.psychsport.2020.101755

Moritz, S. E., Feltz, D. L., Fahrbach, K. R., & Mack, D. E. (2013). The Relation of Self-Efficacy Measures to Sport Performance: A Meta-Analytic Review. *71*(3), 280–294. https://doi.org/10.1080/02701367.2000.10608908

Murray, R. M., Coffee, P., Arthur, C. A., & Eklund, R. C. (2020). Social identity moderates the effects of team-referent attributions on collective efficacy but not emotions. *Sport, Exercise, and Performance Psychology*. https://doi.org/10.1037/spy0000178

Murray, R. M., Koulanova, A., & Sabiston, C. M. (2022). Understanding Girls' Motivation to Participate in Sport: The Effects of Social Identity and Physical Self-Concept. *Frontiers in Sport and Active Living*, *3*. https://doi.org/10.3389/fspor.2021.787334

Oakes, P. J., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality*. Blackwell Publishing.

Postmes, T., Haslam, S. A., & Jans, L. (2013). A single-item measure of social identification: Reliability, validity, and utility. *British Journal of Social Psychology*, *52*(4), 597–617. https://doi.org/10.1111/bjso.12006

Rees, T., Alexander Haslam, S., Coffee, P., & Lavallee, D. (2015). A social identity approach to sport psychology: Principles, practice, and prospects. *Sports Medicine*, *45*(8), 1083–1096. https://doi.org/10.1007/s40279-015-0345-4

Rees, T., Salvatore, J., Coffee, P., Haslam, S. A., Sargent, A., & Dobson, T. (2013). Reversing downward performance spirals. *Journal of Experimental Social Psychology*, 49(3), 400-403. https://doi.org/10.1016/j.jesp.2012.12.013

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, *25*(1), 54-67. https://doi.org/10.1006/ceps.1999.1020

Sabiston, C. M., Vani, M., de Jonge, M., & Nesbitt, A. (2022). Scoping reviews and rapid reviews. *International Review of Sport and Exercise Psychology*, 1–29. https://doi.org/10.1080/1750984X.2021.1964095

Scanlan, T. K., Russell, D. G., Magyar, T. M., & Scanlan, L. A. (2009). Project on elite athlete commitment (PEAK): III. An examination of the external validity across gender, and the expansion and clarification of the sport commitment model. *Journal of Sport & Exercise Psychology*, 31(6), 685-705. https://doi.org/10.1123/jsep.31.6.685

Slater, M. J., Haslam, S. A., & Steffens, N. K. (2018). Singing it for "us": Team passion displayed during national anthems is associated with subsequent success. *European Journal of Sport Science* https://doi.org/10.1080/17461391.2018.1431311

Slater, M, J., Thomas, W., Evans, A, L. (2020) Leadership and group performance. In Haslam, S. A., Fransen, K., & Boen, F. (Eds.), The new psychology of sport and exercise: The social identity approach (pp. 75-94) Sage Publishing.

Steffens, N, K., Fransen, K., Haslam, S. A. (2020) Leadership. In Haslam, S. A., Fransen, K., & Boen, F. (Eds.), The new psychology of sport and exercise: The social identity approach (pp. 41-48) Sage Publishing.

Stevens, M., Rees, T., Coffee, P., Haslam, S. A., Steffens, N. K., & Polman, R. (2018). Leaders promote attendance in sport and exercise sessions by fostering social identity. *Scandinavian Journal of Medicine & Science in Sports*, *28*(9), 2100–2108. https://doi.org/10.1111/sms.13217

Stevens, M., Rees, T., Coffee, P., Steffens, N. K., Haslam, S. A., & Polman, R. (2020). Leading Us to Be Active: A Two-Wave Test of Relationships Between Identity Leadership, Group Identification, and Attendance. *Sport and Exercise Performance Psychology*, *9*(1), 128–142. https://doi.org/10.1037/spy0000164

Stevens, M., Rees, T., & Cruwys, T. (2021). Social identity leadership in sport and exercise: Current status and future directions. *Psychology of Sport and Exercise*, *55*. https://doi.org/10.1016/j.psychsport.2021.101931

Tajfel, H. (1981). *Human groups and social categories.* Cambridge University Press.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of inter-group conflict. In W. G. Austin & S. Worchel

Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. Austin (Eds.), Psychology of Intergroup Relations (pp.7–24). Nelson Hall.

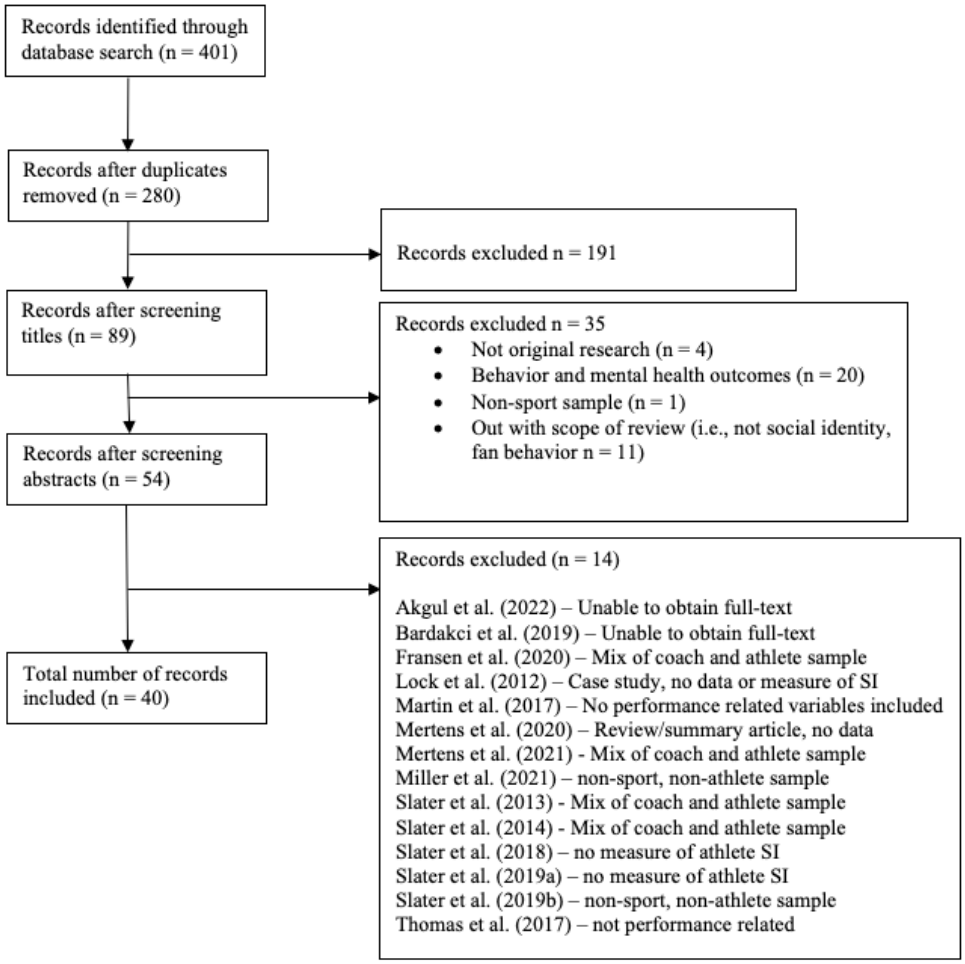
Tajfel, H., Turner, J. C., Austin, W. G., & Worchel, S. (1979). An integrative theory of intergroup conflict. *Organizational Identity: A Reader*, *56*(65).

947 Tauber, S., & Sassenberg, K. (2012). The Impact of Identification on Adherence to Group
948 Norms in Team Sports: Who Is Going the Extra Mile? *Group Dynamics – Theory, Research and*
949 *Practice*, *16*(4), 231–240. https://doi.org/10.1037/a0028377
950 Tenenbaum, G., & Filho, E. (2018). Psychosocial Measurement Issues in Sport and Exercise
951 Settings. *Oxford Research Encyclopedia of Psychology*.
952 https://doi.org/10.1093/ACREFORE/9780190236557.013.225
953 Terry, D. J., & Hogg, M. A. (1996). Group norms and the attitude–behavior relationship: A
954 role for group identification. *Personality and Social Psychology Bulletin, 22*(8), 776–
955 793. https://doi.org/10.1177/0146167296228002
956 Thomas, W. E., Brown, R., Easterbrook, M. J., Vignoles, V. L., Manzi, C., D'Angelo, C., &
957 Holt, J. J. (2019). Team-level identification predicts perceived and actual team performance:
958 Longitudinal multilevel analyses with sports teams. *British Journal of Social Psychology*.
959 https://doi.org/10.1111/bjso.12277
960 Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D.,
961 Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L.,
962 Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., … Straus, S. E. (2018). PRISMA extension for
963 scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, *169*(7),
964 467–473. https://doi.org/10.7326/M18-0850
965 Turner, J. C. (1991). Social influence. Thomson Brooks/Cole Publishing Co.
966 Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987).
967 *Rediscovering the social group: A self-categorization theory.* Basil Blackwell.
968 Woolf, J., & Lawrence, H. (2017). Social identity and athlete identity among CrossFit
969 members: an exploratory study on the CrossFit Open. *Managing Sport and Leisure*, *22*(3), 166-180.
970 https://doi.org/10.1080/23750472.2017.1415770

971 Worley, J. T., Harenberg, S., & Vosloo, J. (2020). The relationship between peer servant
972 leadership, social identity, and team cohesion in intercollegiate athletics. *Psychology of Sport and*
973 *Exercise*. https://doi.org/10.1016/j.psychsport.2020.101712
974 Zumeta, L. N., Oriol, X., Telletxea, S., Amutio, A., & Basabe, N. (2016). Collective efficacy
975 in sports and physical activities: Perceived emotional synchrony and shared flow. *Frontiers in*
976 *Psychology*. https://doi.org/10.3389/fpsyg.2015.01960

977 **Figure 1**: *Flowchart of the selection and removal process based on the inclusion and*

978 *exclusion criteria.*

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