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# The myth of the team captain as principal leader: extending the athlete leadership classification within sport teams

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# The myth of the team captain as principal leader: extending the athlete leadership classification within sport teams

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#### **Abstract**

Although coaches and players recognise the importance of leaders within the team, research on athlete leadership is sparse. The present study expands knowledge of athlete leadership by extending the current leadership classification and exploring the importance of the team captain as formal leader of the team. An online survey was completed by 4,451 participants (31% females and 69% males) within nine different team sports in Flanders (Belgium). Players (N = 3,193) and coaches (N = 1,258) participated on all different levels in their sports. Results revealed that the proposed additional role of motivational leader was perceived as clearly distinct from the already established roles (task, social and external leader). Furthermore, almost half of the participants (44%) did not perceive their captain as the principal leader on any of the four roles. These findings underline the fact that the leadership qualities attributed to the captain as the team's formal leader are overrated. It can be concluded that leadership is spread throughout the team; informal leaders rather than the captain take the lead, both on and off the field.

Keywords: peer leaders, informal leadership, shared leadership, team performance, sport psychology

Newspaper headlines routinely illustrate the importance of effective leaders; a prime minister leading the country, a business director leading a company or a coach leading a sport team. Based on a generic definition of leadership as "a process whereby an individual influences a group of individuals to achieve a common goal" (Northouse, 2010, p. 3), leadership processes should be similar in different contexts and their success and effectiveness should rely on similar factors (Weinberg & McDermott, 2002). However, in contrast with the abundant literature on leadership in organisational settings, the literature on leadership in sports is sparse (Crust & Lawrence, 2006; Riemer & Chelladurai, 1995). Moreover, most studies have concentrated on the of a team (see Chelladurai, coach Chelladurai & Riemer, 1998 for reviews), even though leadership needs not to be restricted to the coach; players within the team can also fulfil important leadership functions (Northouse, 2010).

#### Athlete leadership

Athlete leadership has been defined as "an athlete, occupying a formal or informal role within a team,

who influences a group of team members to achieve a common goal" (Loughead, Hardy, & Eys, 2006). Athlete leaders influence team cohesion, athlete satisfaction and team confidence (Fransen et al., 2012; Price & Weiss, 2011, 2013; Vincer & Loughead, 2010). Coaches and players on the field confirm the importance of athlete leaders. For instance, Chuck Noll, former head coach of a professional American football team and winner of four Super Bowls, stated:

On every team there is a core group that sets the tone for everyone else. If the tone is positive, you have half the battle won. If it is negative, you are beaten before you even walk out on the field. (Pim, 2010, p. 127)

Although these observations stress the crucial role of athlete leaders, a considerable gap exists between the importance assigned to athlete leadership and the efforts made to understand it (Loughead et al., 2006). Therefore, in the present study, our goals were to extend our knowledge of athlete leadership by refining the current athlete leadership classification (first aim) and by exploring the importance of

the team captain as formal leader of the team (second aim).

#### Classification of athlete leadership

Using role differentiation theory (Bales, 1950) athlete leaders can be classified based on their function. Leaders with an instrumental function are focused on the accomplishments of group tasks, whereas leaders with an expressive function are concerned with interpersonal relationships. These two functions are not mutually exclusive; athlete leaders can simultaneously engage in both task and social behaviours (Rees & Segal, 1984; Todd & Kent, 2004; Voelker, Gould, & Crawford, 2011). A third, and more recent identified function of athlete leaders is an external function by which leaders represent the group at meetings and media gatherings (Eys, Loughead, & Hardy, 2007; Loughead et al., 2006).

Although this threefold leadership classification (i.e. task leader, social leader and external leader) already specifies various functions of athlete leaders, it may still not be comprehensive enough. More specifically, Loughead et al. (2006, p. 148) characterised a social leader by qualities such as "this leader ensures teammates are involved and included in team events" and "this leader offers support and is trusted by teammates". These characteristics relate to the expressive function in the role differentiation theory, but mainly refer to the concern with interpersonal relationships off the field, not on the field. We therefore propose that the current classification lacks a leadership role that embodies the interpersonal interactions that are directly linked to the onfield performance. This proposition is supported by numerous coaches and players who emphasise the importance of motivating and cheering during the game. In accordance with these on-field experiences, several studies indicated that motivating and encouraging behaviours are crucial for effective athlete leadership (Cotterill, 2013; Dupuis, Bloom, & Loughead, 2006; Holmes, McNeil, & Adorna, 2010). Apitzsch (2009) even stated that the absence of a socio-emotional leader (i.e. a leader who creates a positive atmosphere on the field) can lead to a collective collapse.

Despite these preliminary indications, the on-field motivating function has not yet been empirically established and has, therefore, not yet been incorporated into current athlete leadership classifications. Consequently, the first aim of our study was to explore the validity and relevance of a more comprehensive classification of athlete leadership by including a fourth role, namely the motivational leader on the field. We hypothesise that the four leadership roles (task, motivational, social and external leader) will emerge as clearly distinct roles. In addition, we

examine the importance of these four leadership roles for the optimal functioning of a sport team.

#### Formal versus informal leaders

Another way to classify athlete leaders is based on the formal or informal character of their leadership function. A formal leader is a player who has been prescribed that function formally by the coach or by the team, e.g. the team captain who has been formally appointed to be captain of the team. An informal leader, on the other hand, has no formal leadership position but becomes a team leader as a result of the interactions occurring within the team. Previous studies acknowledge the existence of both formal and informal athlete leaders within sport teams (Holmes et al., 2010; Loughead et al., 2006).

So far, most studies focused on the team captain (Dupuis et al., 2006; Grandzol, Perlis, & Draina, 2010; Voelker et al., 2011). The captain is often considered as "the" leader of the team; he/she is expected (1) to act as a liaison between the coaching staff and the players, (2) to act as a leader during all team activities and (3) to represent the team at receptions, meetings and press conferences (Mosher, 1979). Furthermore, the captain engages in both task and social behaviours, such as coaching his/her teammates or providing social support (Voelker et al., 2011). Coaches, players and sports media all seem to assume that the team captain takes the lead both on and off the field. Although the captain has received most research attention, some studies have explored the impact of informal leadership (Loughead et al., 2006). In this regard, Morgan, Fletcher, and Sarkar (2013) identified shared leadership roles as an important characteristic of highly resilient sport teams (i.e. teams that are able to withstand stressors positively). Their participants recognised the need for a core set of leaders in challenging situations, illustrated by the following quote from a professional football player: "You need a few types of leaders within the team. ... My experience of resilient teams is that you have six or more players who could easily have done the captaincy job" (Morgan et al., 2013, p. 552). These studies emphasised that, although athlete leaders often have the formal position of team captain, other players within the team also have an important role as informal leaders.

The second aim of the present study was to compare the importance of the captain as formal team leader with the importance of the informal leaders. Therefore, we examined how many leadership roles are perceived as being primarily fulfilled by the team captain. Based on previous research, we expect that the team captain is perceived as the most important leader (i.e. fulfilling most leadership roles), but that other players on the team also act as informal leaders.

#### Method

#### Recruitment

To contact coaches and players within nine different team sports in Flanders (Belgium), we cooperated with the Flemish Trainer School, the organiser of the sport-specific schooling of coaches in Flanders. Their database was used to invite 5,535 certified coaches to complete a web-based questionnaire. To enhance the variability of our sample, we also contacted noncertified coaches and their teams through the different Flemish sport federations. In total, 8,509 players and 7,977 coaches were invited to participate during the last months of the season (i.e. March-May, 2012). APA ethical standards were followed in the conduct of the study and informed consent was obtained from all participants. Coaches and players who did not respond, received a reminder two weeks later. No rewards were given and full confidentiality was guaranteed.

#### **Participants**

In total, 4,451 participants (3,193 players and 1,258 coaches) completed our questionnaire, resulting in an estimated total response rate of 27% (i.e. 37.5% for players and 15.8% for coaches). This response rate is somewhat lower than the average response rate of web-based questionnaires (Shih & Fan, 2008). However, there are reasons to believe that 27% is the lower limit of the actual response rate. First, the database that we used was not very accurate, in that a considerable number of e-mail addresses were no longer in use or referred to coaches who were not active anymore. Second, the database of the Flemish Trainer School revealed some overlap with the databases of the sport federations. As a result, some players or coaches were contacted twice. Third, only participants above 15 years of age were included, because a pilot study (N = 30) had revealed that younger players encountered too many difficulties to complete the questionnaire. This restriction further decreased the actual response.

More detailed information on the participants can be found in Table I. The participants played or coached in 2,366 different teams. The sample included players and coaches from nine different team sports in Flanders; basketball (n = 1,959; 44%), handball (n = 116; 3%), hockey (n = 127; 3%), ice hockey (n = 72; 2%), korfball (n = 118; 3%), rugby (n = 84; 2%), soccer (n = 589; 13%), volleyball (n = 1,287; 29%) and water polo (n = 99;2%). Players and coaches from various competitive levels participated, ranging from the elite level (i.e. corresponding to the highest level), over national, provincial and regional levels (i.e. three competition levels decreasing in importance), to the recreational level (i.e. the lowest level of competitive sport; sometimes only competition games without any training sessions) and youth level (i.e. only players below 21 years of age).

#### Measures

Athlete leadership. To determine the athlete leaders within a team, we extended the existent classification (Loughead et al., 2006) by including an additional leadership role, namely the role of motivational leader on the field. The definition of the motivational leader was constructed based on motivational leadership behaviours outlined in literature (Dupuis et al., 2006; Holmes et al., 2010; Mosher, 1979) and was subsequently tested by a focus group including three research experts in the area of sports psychology, an applied sport psychologist and an expert coach on the elite level. The motivational leader was characterised by the encouragement of teammates to go the

Table I. Sample characteristics.

Function 3,193 Players (72%)	M <sub>age</sub> (years)	M <sub>experience</sub> (years)	Team gender	Level	
			1,876 ♂ (59%) 1,232 ♀ (39%) 85 ♂ + ♀ (3%) <sup>a</sup>	177 E 836 N 1,733 P 209 RG 122 RC	(6%) (26%) (54%) (7%) (4%)
1,258 Coaches (28%)	41.94	13.97	880 $\[ \circlearrowleft \] (70\%)$ 345 $\[ \circlearrowleft \] (27\%)$ 33 $\[ \circlearrowleft \] + \[ \circlearrowleft \] (3\%)^a$	116 Y 90 E 268 N 613 P 102 RG 22 RC 163 Y	(4%) (7%) (21%) (49%) (8%) (2%) (13%)

*Note*: <sup>a</sup>Korfball is a mixed-gender team sport.  $M_{age}$ , mean age;  $M_{experience}$ , mean years of experience;  $\circlearrowleft$ , male;  $\circlearrowleft$ , female; E, elite level; E, national level; E, provincial level; E, regional level; E, recreational level; E, youth.

extra mile. This leader steers all the emotions on the field in the right direction in order to perform optimally as a team. The descriptions of the four leadership roles were presented to all participants (see Table II). The role of both task and motivational leaders are fulfilled mainly on the field; during practice and during the game. Tactical or motivational behaviours that occur off the field, but with a strong link to the on-field performance (e.g. tactical advice and encouragement before the game or during halftime), are also included in these on-field leadership roles. The roles of social and external leaders are fulfilled off the field.

After presenting the description of each leadership role, participants had to indicate which player in their team corresponded best with the description of each of the four leadership roles. Only one player could be ascribed to each of the leadership roles, but one and the same player could occupy several leadership roles. Participants could also indicate that a specific leadership role was not present in their team. In addition, they were asked whether these perceived leaders corresponded with the team captain and/or with the players ascribed to other leadership roles. With this type of assessment, it can be

Table II. The definition of the four leadership roles, as presented to the participants.

Leadership role	Definition
Task leader	A task leader is in charge on the field; this person helps the team to focus on our goals and helps in tactical decision-making. Furthermore, the task leader gives his/her teammates tactical advice during the game and adjusts them if necessary.
Motivational leader	The motivational leader is the biggest motivator on the field; this person can encourage his/her teammates to go to any extreme; this leader also puts fresh heart into players who are discouraged. In short, this leader steers all the emotions on the field in the right direction in order to perform optimally as a team.
Social leader	The social leader has a leading role besides the field; this person promotes good relations within the team and cares for a good team atmosphere, e.g. in the dressing room, in the cafeteria or on social team activities. Furthermore, this leader helps to deal with conflicts between teammates besides the field. He/she is a good listener and is trusted by his/her teammates.
External leader	The external leader is the link between our team and the people outside; this leader is the representative of our team to the club management. If communication is needed with media or sponsors, this person will take the lead. This leader will also communicate the guidelines of the club management to the team regarding club activities for sponsoring.

established whether one or more leadership roles are concentrated in one player or that different players occupy the different roles.

Optimal team functioning. As indicators of the team functioning, we assessed players' and coaches' collective efficacy, their identification with the team and the team's place in the ranking. The 20-item Collective Efficacy Questionnaire for Sports (Short, Sullivan, & Feltz, 2005) was used to assess participants' collective efficacy. The internal consistency of this collective efficacy scale (Cronbach's  $\alpha = 0.95$ ) was excellent. Team identification was measured using five items based on previous research (Doosje, Ellemers, & Spears, 1995). The internal consistency of this identification scale proved to be excellent (Cronbach's  $\alpha = 0.91$ ). The place of the team in the ranking was assessed on a 7-point scale including 1 (first place), 2 (place 2 of 3), 3 (little above the middle), 4 (half way), 5 (little below the middle), 6 (second or third last place), 7 (last place).

#### Results

Occurrence and overlap of leadership roles in a sport team

Frequency analyses revealed that most participants perceived that the roles of task leader, motivational leader and social leader were present in their teams; 77.5%, 77.4% and 71.3% of the participants identified a task, a motivational and a social leader, respectively, in their team. Almost half of the participants (47.9%) indicated that no player fulfilled the role of an external leader in their team. Frequency analyses with regard to the age of players and coaches revealed only small differences between the different age groups, and no fixed trend could be detected.

As noted earlier, a single player can occupy multiple leadership roles within a team. Table III gives an overview of the overlap between the different leadership roles. The number of players who occupy a single leadership role is provided in italics on the diagonal. For example, half of the players (49.9%) who performed the role of task leader were not considered the most prominent individual for championing the other leadership roles (motivational, social or external). The percentage of task leaders, who were also perceived as best motivational, best social or best external leaders, was 18.8%, 10.2% and 9.8%, respectively. In 22.5% of the participants' teams, no task leader was perceived to be present. Because one player can occupy three or four leadership roles, it is understandable that these percentages do not add up to 100%.

Furthermore, our results revealed that in only 2% of the teams, the same player fulfilled all four leadership roles. The overlap between the leadership roles

Table III. Overlap between the different leadership roles performed by one player. The number of players who occupy only a single leadership role is provided in italics on the diagonal.

	Task leader	Motivational leader	Social leader	External leader
Task leader	2,220 (49.9%)			
Motivational leader	838 (18.8%)	2,214 (49.7%)		
Social leader	454 (10.2%)	512 (11.5%)	2,127 (47.8%)	
External leader	434 (9.8%)	283 (6.4%)	451 (10.1%)	1,482 (33.3%)
No leader present	1,003 (22.5%)	1,008 (22.6%)	1,276 (28.7%)	2,132 (47.9%)

was relatively limited; not more than 19% of the athlete leaders fulfilled two leadership roles in the same team. These findings indicate that the four leadership roles emerged as clearly distinct roles and that leadership is spread throughout the team, so that different players within the team occupy the various leadership roles.

The number of athlete leaders who are perceived to occupy only one leadership role (see Table III; in italics on the diagonal) was relatively high in each of the nine team sports; the number of unique task leaders varied between 45.9% and 59.6%, for motivational leaders, this number varied between 40.9% and 55.9%, for social leaders between 46.3% and 55.9% and for external leaders between 26.0% and 48.8%. Given the high percentage of unique motivational leaders, this newly proposed leadership role appeared to be clearly distinct from the other leadership roles; the overlap with each of the other leadership roles did not exceed 18.8% on average. Within the nine different sports, the highest overlap was found in ice hockey, where 26.4% of the motivational leaders also performed the role of task leader. Linear regression analyses revealed that the overlap between the different leadership roles within a team was not significantly predicted by the examined background characteristics ( $\beta > 0.05$ ); players and coaches of male and female teams, regardless of the level, perceived a similar overlap between the different leadership roles in their team.

#### The most important leader

After assigning the leadership roles to players within their team, participants indicated which of these players they perceived as the most important leader. If this leader had multiple leadership roles, participants had to indicate his/her most important role. Table IV presents which leader the participants indicated as most important.

The results indicate that most participants perceived the task leader as the most important leader, followed by the motivational leader. The social leader and the external leader were perceived as less important. The nine different team sports all revealed the same order of perceived importance of

Table IV. The most important leader.

The most important leader	N	Percentage	Valid percentage
Task leader	1,668	37.5	42.1
Motivational leader	1,263	28.4	31.9
Social leader	703	15.8	17.8
External leader	325	7.3	8.2
Total	3,959	88.9	100.0
Missing values	492	11.1	

the different leaders by both players and coaches; the task leader was always perceived as the most important leader (39.7–51.1%), followed by the motivational leader (22.6–35.8%). The number of coaches and players who perceived the social or the external leader as the most important leader did not exceed 20%, with exception of handball, where 25% of the players and coaches listed the social leader as the most important leader. As a result, leadership roles on the field were clearly perceived as more important than leadership roles off the field, regardless of the sport or the level on which the participants played or coached.

The importance of athlete leaders for an optimal team functioning

The correlations in Table V indicate that the presence of more leadership roles in the team made players and coaches more confident in the abilities of their team (i.e. higher collective efficacy beliefs) and enhanced their connectedness with their team (i.e. higher team identification). In addition, the results suggested that for an optimal team functioning, it is better to have different athlete leaders in the

Table V. Correlations indicating the importance of athlete leaders for an optimal team functioning.

	Collective efficacy	Team identification	Place in ranking
Number of occupied leadership roles	0.13*	0.16*	-0.06*
Number of different athlete leaders	0.10*	0.12*	-0.06*

*Note*:  $\star p < 0.01$ .

Table VI. Participants' perceptions of the leadership roles performed by the team captain.

Number of leadership roles occupied by the captain	N	Percentage
0	1,940	43.6
1	1,635	36.7
2	659	14.8
3	171	3.8
4	46	1.0

team than one leader who is perceived as the best leader in the different areas.

#### The team captain

The results in Table VI show that only 1% of the participants perceived their captain as the best leader in all four leadership roles. In addition, almost half of the participants (43.6%) reported that the team captain is not the best leader on one of the four domains, neither on the field, nor off the field. On average, over the four leadership roles thereby excluding the cases in which a specific leadership role was not fulfilled, 29.5% of the participants indicated the captain as the best leader on a specific leadership role, whereas 70.5% of the participants indicated an informal leader. These findings were consistent for both coaches and players of the male and female teams, ranging from the recreational to the elite level and within each of the nine sports.

If the captain is perceived as being a primary leader, participants indicated most frequently that the captain was a task leader (31.7%) or a motivational leader (24.6%). Only 15.5% and 10.1% of the participants indicated that the team captain primarily fulfilled the role of social and external leader. In general, the team captain was more often perceived to perform a primary leadership role on the field than off the field, a finding that held for the nine different sports.

#### Discussion

The present investigation extends current knowledge on athlete leadership in two respects. First, a more comprehensive classification with four different athlete leadership roles was established and its relevance for optimal team functioning was demonstrated. Second, we compared the perceived importance of the formal leader (i.e. the team captain) with the informal leaders of the team.

#### Classification of athlete leadership

With regard to the classification of athlete leadership, the newly added motivational leadership role appears to be equally prominent as the already established task and social leadership roles. Our results corroborate earlier studies, which also found that the external leadership role is less prominent (Eys et al., 2007; Loughead et al., 2006).

Although a player can perform several leadership roles at the same time, maximum 18.8% of our athlete leaders combined two specific leadership roles. In other words, the four leadership roles emerged as clearly distinct roles. Leadership appears to be spread throughout the team; different players within the team are perceived as being the primary leader with respect to the four roles.

Regarding the importance assigned to these different leadership roles, both task and motivational leaders are perceived as more important than the social and external leadership roles. In contrast to previous research that assigned an equal importance to leaders' on- and off-field characteristics (Bucci, Bloom, Loughead, & Caron, 2012), our findings reveal that both players and coaches perceive the on-field leadership roles as more important than the off-field leadership roles, regardless of the sport or level they play or coach. The fact that half of the participants indicated no external leader on their team corresponds with the perception of the external leader as the least important leader on the team. A possible alternative explanation is that this external function is not fulfilled by players but by the coach or club management.

The new role of motivational leader is perceived as the second most important leadership role. This confirms our hypothesis that the proposed new leadership classification, including the motivational leader, is more comprehensive than previous classifications. Given the key role of motivating and encouraging behaviours for effective athlete leadership (Apitzsch, 2009; Cotterill, 2013; Dupuis et al., 2006; Holmes et al., 2010), the new leadership classification improves the relevance of this new leadership classification for coaching practice on the field.

#### The team captain

In order to better understand the function of a team captain, we analysed which leadership roles the team captain performs. Our findings revealed that in only 1% of the teams, the captain is perceived as being the primary leader in all four roles. Even more remarkable is that almost half of the participants did not perceive their captain as the most important leader, neither on, nor off the field. These results clearly contradict the general conception of players and coaches that the team captain is "the" leader of the team, both on and off the field.

Previous research already suggested that not only team captains, but also other players can function as athlete leaders (Loughead & Hardy, 2005; Loughead et al., 2006). Our findings add that it is common (i.e. 70.5% of the time) that informal athlete leaders, rather than the formal leader, take the principal lead, both on and off the field. This pattern is obtained in all teams, regardless of team gender, sport or level, and thus underlines the general overrating of the leadership qualities of the team captain. Although many studies on athlete leadership only focus on the role of the team captain (Dupuis et al., 2006; Grandzol et al., 2010; Voelker et al., 2011), our findings infer that informal athlete leadership, exhibited by other players besides the team captain, is indeed important and should be acknowledged.

These findings are consistent with the new paradigm of shared leadership in the organisational literature (Pearce & Conger, 2003). Although most existing research on organisational team leadership has focused narrowly on the behaviour of an individual leader, the latest research trends acknowledge the importance of leadership provided by team members. Because it is unlikely that a single leader can successfully perform all necessary leadership functions, Carson, Tesluk, and Marrone (2007) argued for "shared leadership" in teams (also called collective or distributed leadership), which they define as "an emergent team property that results from the distribution of leadership influence across multiple team members." Based on our findings, we propose a slightly expanded view of shared leadership, similar to the one of Pearce and Conger (2003, p. 286). They suggested that shared leadership involves informal influence as part of a dynamic, interactive influence process among players in teams, both lateral and vertical, but with the key attribute being more than just downward influence on the players by an appointed or an elected leader (such as the coach or team captain). We extended the model of "shared leadership" by not only providing evidence that there are different athlete leaders in the team, but also by demonstrating that these leaders occupy different leadership

Previous findings within the organisational setting showed that the emergence of informal leaders was positively related with higher individual and team performance (Zhang, Waldman, & Wang, 2012). Furthermore, co-leadership in sports has already been associated with positive outcomes for both team members and leaders (Cotterill, 2013). These findings are in line with our results that shared leadership within the team was positively linked with higher collective efficacy beliefs, stronger team identification and a better place in the ranking.

Strengths, limitations and suggestions for further research

The strengths of our study include the broad variety of players and coaches in our sample; men and women, of all ages and experience levels, active at all levels of nine different team sports in Flanders. The consistency of our findings, regardless of level, sport or team gender, testifies to the reliability of our findings.

In addressing the limitations of the present study, several opportunities for future research emerge. First, in our study, we only asked which player and which leadership role constituted the best match. It is possible that the team captain is not perceived as the best leader on and off the field, but instead as second best. Therefore, we cannot conclude that the captain does not perform the given leadership roles at all. Future research could assess the leadership capacities of every player in the team with respect to the different leadership roles. This would provide a deeper insight in the leadership function of the captain compared to the other players. It remains true, however, that other players in the team are perceived as more important leaders than the captain.

Second, the team captain was only evaluated with regard to his/her leadership capacities. It is possible then that the team captain has other qualities than those we studied. As such, the captain's function might be focused on other issues than leadership, e.g. on being the confidant of the coach. Future research can clarify the exact function of the team captain by interviewing coaches and players about their definition of the captain's function and about the selection criteria used to assign this function.

Third, regarding the design of the present study, individual players and coaches, rather than complete teams, completed the online questionnaire, which resulted in 4,451 participants active in 2,366 different teams. This makes it impossible to conduct analyses at team level. From a research perspective, it is clear that further investigation on the team level is warranted to determine to which extent players and coaches of the same team indicate the same player as task, motivational, social and external leader.

Fourth, the present study utilised a cross-sectional design, as did most other studies on leadership (Moran & Weiss, 2006; Price & Weiss, 2011). Previous longitudinal research revealed that the percentage of task, social and external leaders within a team remained relatively stable from the beginning to the end of a season (Eys et al., 2007; Loughead et al., 2006). We examined athlete leadership only at the end of the season to give all players adequate time to develop team relationships and to gain insight into the athlete leadership within their team.

However, a longitudinal design would allow researchers to verify whether informal leaders are perceived as the most important leaders during the whole season or whether the influence of formal leaders shifts towards informal leaders during the season. Furthermore, such a design would enable researchers to gain an understanding of the stability of informal leadership over the course of a season (e.g. whether the same players are occupying the different leadership roles during the whole season).

## Implications for theoretical knowledge and coaching practice

The findings of the present study contribute both to theoretical knowledge and to coaching practice. First, the results provide clear insight into the nature of athlete leadership within sport teams. Besides investigating formal and informal leadership, and the extent to which leadership is shared within a team, we also examined the different leadership roles that athletes can occupy. Future research can translate these findings to other settings, such as the organisational or educational setting. In this regard, researchers should look more closely into the concept of "shared leadership" by determining whether the different leaders occupy different leadership roles. Based on our findings, we assume that the already established positive impact of shared leadership on team performance (Carson et al., 2007) would become even stronger when the different leaders in the team take on different leadership roles.

Second, coaches can use these findings to elect their team captain in a well-considered way according to the needs of their particular team, thereby focusing on his/her leadership qualities in the different areas. Furthermore, coaches should realise that not only the team captain, but also other team members can and should take up leadership roles. Therefore, coaches should allocate time and effort to the identification and development of leadership (Bucci et al., 2012; Price & Weiss, 2011). Identification of the informal leaders within the team can help coaches to guide these leaders and further develop their leadership capabilities. This strengthened athlete leadership has the potential to create a more optimal team functioning, which, in turn, may result in an improved team performance.

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