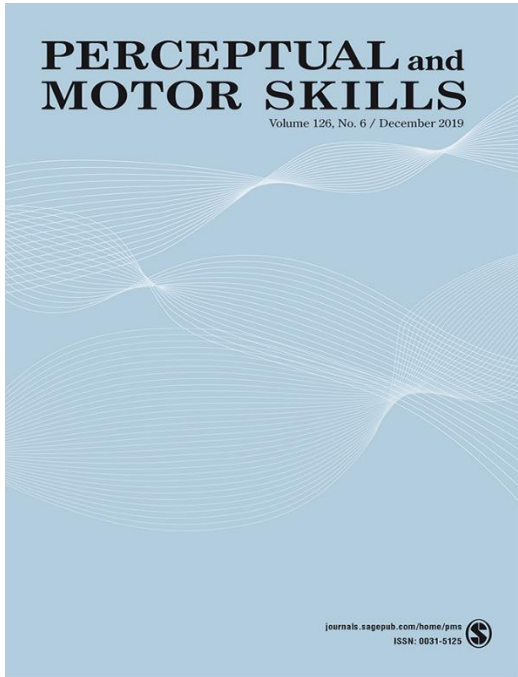


To cite this work

Gomes, A.R., Almeida, A., & Resende, R. (2020). Athletes' perception of leadership according to their perceptions of goal achievement and sport results. *Perceptual and Motor Skills*, 127(2) 415–431. <https://doi.org/10.1177/0031512519892384>



Athletes' Perception of Coaches' Leadership in Relation to Their Perceptions of Goal Achievement and Sport Results

Abstract

In this study, we investigated whether athletes' perceptions of coaches' leadership differ according to their perceptions of individual and team goal achievement and their sport performance. We collected data at the beginning and end of the sport season from 180 soccer players (aged 16-18 years). We evaluated three leadership areas (transformational, transactional, and decision-making) and the participants' perceptions of individual and team performance during the sport season. Our results showed that (a) athletes with a perceptions of higher individual goal achievement evaluated their coaches more positively; (b) athletes with perceptions of higher team goal achievement started the sport season with a less positive evaluation of their coaches but ended the season with a more positive coach evaluation; and (c) athletes with higher sport performance evaluated their coaches less positively in two domains of transformational leadership but ended the season by attributing less negative feedback and passive management to their coaches. In conclusion, these athletes' evaluations of coaches' leadership behaviors differed according to their perceptions of goal achievement and their own sport performance.

Keywords: Leadership; Goals; Team Performance; Individual Performance; Coaches; Sports Season.

Introduction

The topic of leadership has captured the interests of talented scholars and practitioners around the world and has led to expanded visions and explanations of leadership phenomena (Gardner, Lowe, Moss, Mahoney, & Cogliser, 2010). In the case of sports leadership, several theoretical proposals now explain the functioning and impact of sport leaders on individuals (mostly athletes), teams, and organizations. Two particular proposals have had substantial impact on sport psychology research. First, the multidimensional model of leadership (Chelladurai, 1993) proposed that successful performance and athlete satisfaction depend on congruence between three components of coaches' behaviors: coaching behaviors athletes preferred, actual coaching behaviors, and coaching behaviors required by the sport context. If coaches assume congruence between actual behaviors that are consistent with athletes' preferences and represent required/desirable behavior in that particular sport context, then maximum athlete performance and satisfaction with the coach can be achieved. Second, the mediational model of leadership (Smoll & Smith, 1980) proposed that athlete perceptions mediate the relationship between overt coaching behaviors and athletes' reactions to their athletic experiences. This model is recursive in proposing that behaviors assumed by coaches influence athletes' perceptions and memories, that, in turn influence athletes' reactions toward the coaches' actions. Thus, the athletes' own reactions to coaches recursively affect their perceptions and recall of coaching behaviors.

Research findings from these models have provided support for a relationship between coaches' behaviors and athletes' positive outcomes (Amorose, 2007). In general, specific coaching behaviors and/or leadership styles have been found to either promote or

debilitate the athletes' psychosocial growth and development (Chelladurai, 2007). Despite wide interest in this field of research, many aspects of sports leadership warrant further investigative attention.

There is a consensus view that coaches can exert a profound influence on athletes' well-being by the way they evaluate and respond to sport activity; considerable empirical evidence supports the impact of coaches on several psychological dimensions of athletes (e.g. satisfaction, goal commitment, enjoyment, self-esteem, perceived competence; Chelladurai, 2012; Cronin, Arthur, Hardy, & Callow, 2015; Horn, 2008; Stenling & Tafvelin, 2014). However, the mutual relationship between leadership and the performance of individuals, teams, and organizations has been far less frequently studied, including, for example, how leaders influence their subordinates' sport performance (Kaiser, Hogan, & Craig, 2008; Yukl, 2008) and how subjective and objective team achievement influences, in turn, how team members evaluate their leaders.

Second, most sports leadership research still relies on theoretical models that fail to integrate recent research on new organizational leadership constructs such as transformational leadership (Dinh et al., 2014). Interestingly, though Chelladurai (2007) included transformational leadership in the multidimensional model of leadership, there is still little confirmation of this integrated construct in most sports leadership research. Nevertheless, transformational leadership has begun to capture sport researchers' attention with very promising early results (for a review see Alvarez, Castillo, Molina-García, & Balague, 2016; Gomes, 2014), and it is crucial to continue this line of new research.

Third, sports leadership research has not paid sufficient attention to the dynamic nature of the interactions established between coaches and athletes that can differentially

shape athletes' perceptions of their coaches' leadership throughout the sport season. However, some studies suggest that these dynamics occur and may influence coach-athlete relationship (Fransen, Delvaux, Mesquita, & Van Puyenbroeck, 2018; Mata & Gomes, 2013; Stenling, Ivarsson, Hassmén, & Lindwall, 2017). These relationship dynamics can be influenced by sport success achieved by athletes (at subjective and objective levels) so that athletes' evaluations of their coaches' leadership change over time. As noted by Bass and Riggio (2006), it is crucial for investigators to collect measures of leadership at two or more time points in time to better capture team members' dynamic perceptions of coaches' leadership.

Considering all of these arguments, we examined, in this study, whether athletes' perceptions of their coaches' leadership differed according to their perceptions (subjective) of their individual and team goal achievements and/or their actual (objective) sport performance. Thus, we studied the relationship between both subjective and objective measures of performance of athletes and their perceptions of coaches' leadership, allowing us to respond to an ongoing debate over the *best* indicators for evaluating athletes' sport experiences and their relations to coaches (Mallett & Côté, 2006). The athletes' evaluations of coaches' leadership in our study assumed a broad perspective, including three main domains of leadership: decision-making, transactional, and transformational. We evaluated decision-making leadership in terms of coaches' tendencies to be active or passive in sharing their power and decisions with athletes (Gomes & Resende, 2014). We evaluated transactional leadership in terms of coaches' tendencies to respond to athletes' behaviors and performance using positive or negative feedback. In this case, the coach-athlete relationship is based on an exchange system between what leaders want and what team

members give (Avolio & Bass, 2004). Transformational leadership refers to leaders' tendencies to go beyond this exchange system, motivating athletes to give their best and make sacrifices in order to achieve the team mission and goals (Bass, 1995). We evaluated transformational leadership in four domains: (a) coaches' tendencies to be a role model for athletes, inspiring their respect and confidence (idealized influence), (b) coaches' transmission of high expectations of athletes (inspirational motivation), (c) coaches' encouragement of athletes to find new solutions to existing problems (intellectual stimulation), and (d) coaches' recognition of each athlete's individual needs (individualized consideration). There is consensual evidence that transformational leadership produces better results in individual and team performance than do other forms of leadership such as transactional leadership (Arthur, Woodman, Ong, Hardy, & Ntoumanis, 2011; Bass & Riggio, 2006; Rowold, 2006), but there is insufficient evidence of how these different forms of leadership relate to athletes' perceptions of goal achievement and their sport performance, (the main interests of this study). Finally, in this study, we used a repeated measures design for data analysis in order to capture changes in perceptions of sports leadership and individual and team performance over a season. Specifically, we collected data at the beginning of the sport season and after the athletes' completed championship participation at the end of the season. At Time 1, athletes and coaches had spent at least two months of work together, a period considered an acceptable duration for athletes and coaches to get to know each other (Loughead & Carron, 2004).

Method

Participants

We obtained approval from our institution's ethical committee to conduct the study, and we obtained permission of clubs and guardians of athletes, and informed consent from athletes directly, prior to their inclusion in the study. We surveyed 201 male soccer athletes at Time 1 (T1) of data collection, and 180 athletes completed Time 2 (T2) data collection at the end of the session. Thus, our final participant sample is limited to these 180 athletes; this occurred mainly because when we collected T2 data some athletes had already left their teams for vacations or due to contract termination. All athletes were competing at junior level (the last one before adult level), were aged 16-18 years ($M = 17.5$; $SD = 0.57$), were competing in first ($n = 77$; 42.8%) or second ($n = 103$; 57.2%) national divisions (representing the most important levels of competition in this sport in Portugal), and had been practicing soccer at an official level for at least two and as many as 13 years ($M = 8.65$ $SD = 1.90$).

Measures

Transformational Teaching Questionnaire (TTQ) (Beauchamp et al., 2010). We used the TTQ to evaluate athletes' perceptions of their coaches' transformational leadership. The TTQ evaluates similar dimensions as the Multifactor Leadership Questionnaire (Avolio & Bass, 2004), one of the most frequently used and well-known instruments to evaluate transformational leadership (Beauchamp et al., 2010). The TTQ evaluates four leadership dimensions using a 5-point Likert scale (0 = *Never*; 4 = *Always*) for respondents' judgments of test items pertaining to: (a) idealized influence (the reliability coefficients of this instrument among the 180 respondents in this sample at T1

and T2 were: T1 $\alpha = .81$; T2 $\alpha = .76$); (b) inspirational motivation (T1 $\alpha = .90$; T2 $\alpha = .86$); (c) intellectual stimulation (T1 $\alpha = .84$; T2 $\alpha = .81$); and (d) individualized consideration (T1 $\alpha = .86$; T2 $\alpha = .83$). High scores on each scale indicate higher perceptions of a coach's transformational leadership.

Multidimensional Scale of Leadership in Sport (MSLS) (Gomes & Resende, 2014). We used the MSLS to evaluate athletes' perceptions of their coaches' transactional leadership and decision-making. The MSLS evaluates four dimensions through the respondents' use of a 5-point Likert scale (1 = *Never*; 5 = *Always*) in the areas of: (a) positive feedback (the reliability coefficients of this instrument among the 180 respondents in this sample were: T1 $\alpha = .84$; T2 $\alpha = .77$); (b) negative feedback (T1 $\alpha = .77$; T2 $\alpha = .74$); (c) active management (T1 $\alpha = .70$; T2 $\alpha = .75$); and (d) passive management (T1 $\alpha = .79$; T2 $\alpha = .82$). High scores on each scale indicate higher respondent perceptions of coaches' leadership.

Performance Goal Incongruence scale (PGI) (Mata & Gomes, 2013). We used the PGI to evaluate athletes' perceptions of individual goal achievement (T1 $\alpha = .94$; T2 $\alpha = .95$) and team goal achievement (T1 $\alpha = .93$; T2 $\alpha = .96$). Respondents rated these achievement items on a 5-point Likert scale ranging from 1 (*Disagree*) to 5 (*Agree*), with higher scores indicating greater perceived achievement of personal and team goals.

Sport Performance (SP). For sport performance, we used the number of points achieved by each team in the championship, according to the scoring system used by the national federation of soccer that defined zero points for defeat, one point for a draw, and three points for a win. The number of points of each team was summed and then weighted

according to the number of games played. By using the median, we defined teams with lower and higher sport performance.

Procedures

We collected data before a training session. T1 data collection occurred at the beginning of the sport season at a time when all athletes had spent at least two months working together with their coaches, which is an acceptable period to allow athletes to know their coaches' leadership (Loughead & Carron, 2004; Mata & Gomes, 2013). T2 data collection occurred at the completion of the sport season. For both T1 and T2, the evaluation protocol took 15-20 minutes to complete, with athletes responding to questionnaires collectively in the presence of a study investigator when coaches were not present.

Data Analysis

We performed data analysis using SPSS software (version 22.0 for Windows). To carry out general linear models (GLM), we used repeated measures 2 (T1 and T2) X 2 (median score was used to constitute higher and lower groups of perceived performance - PGI and number of points was used to constitute lower and higher groups of sport performance - SP) ANOVAs to test differences in athletes' perceptions of coaches' leadership. We defined the TTQ and MSLS as dependent variables, time as a within-subjects factor, and group as a between-subjects factor.

Results

Psychometric Properties of Instruments

Results of confirmatory factor analysis (CFA) indicated that the instruments used in this study were reliable for subsequent analyses. The TTQ showed an acceptable fit for a four-factor model ($\chi^2(96) = 203.783, p < .001$; RMSEA = .079, 90% C.I. [0.064; 0.094]; CFI = .945; NFI = .901; TLI = .931). The MSLS also showed an acceptable fit for a four-factor model ($\chi^2(47) = 75.025, p < .01$; RMSEA = .058, 90% C.I. [0.032; 0.081]; CFI = .965; NFI = .914; TLI = .951). Finally, the PGI scale showed an acceptable fit for a two-factor model ($\chi^2(8) = 18.708, p < .05$; RMSEA = .086, 90% C.I. [.035; .138]; CFI = .989; NFI = .982; TLI = .986).

The differences in athletes' perceptions of their coaches' leadership according to their subjective views of sport performance were analyzed for the three domains of leadership (e.g. transformational leadership, transactional leadership, and decision-making leadership). Results are presented below and shown in Table 1.

Table 1

Differences in Athletes' Perception of Leadership According to Achievement of Individual and Team Goals

Leadership dimensions	Individual goals					df	Between-subjects factor		Within-subjects factor	
	Time 1		Time 2		F		p	F	p	
	Low perc. M (SD)	High perc. M (SD)	Low perc. M (SD)	High perc. M (SD)						
<u>Individual goals</u>										
<u>Transformational leadership</u>										
TTQ: Idealized influence	3.03 (0.73)	3.16 (0.62)	2.93 (0.61)	3.33 (0.50)	1,178	12.70	<.001	6.14	.014	
TTQ: Inspirational motivation	2.80 (0.91)	3.15 (0.63)	2.81 (0.81)	3.38 (0.52)	1,178	26.74	<.001	2.90	.090	
TTQ: Intellectual stimulation	2.70 (0.78)	2.78 (0.67)	2.63 (0.69)	2.90 (0.70)	1,178	4.29	.040	2.10	.149	
TTQ: Individualized considera.	2.94 (0.86)	3.20 (0.59)	2.91 (0.72)	3.34 (0.51)	1,178	16.64	<.001	2.41	.122	
<u>Transactional leadership</u>										
MSLS: Positive feedback	3.59 (0.89)	3.83 (0.76)	3.36 (0.71)	4.01 (0.58)	1,178	26.06	<.001	9.09	.003	
MSLS: Negative feedback	3.24 (0.98)	2.97 (1.01)	3.11 (0.76)	3.03 (1.06)	1,178	2.45	.119	1.33	.250	
<u>Decision-making leadership</u>										
MSLS: Active management	3.08 (0.95)	3.27 (0.78)	3.08 (0.86)	3.45 (0.83)	1,178	7.79	.006	1.40	.238	
MSLS: Passive management	2.52 (1.05)	2.53 (1.07)	2.53 (0.96)	2.65 (1.16)	1,178	0.29	.611	0.30	.558	
<u>Team goals</u>										
<u>Transformational leadership</u>										
TTQ: Idealized influence	3.21 (0.55)	3.02 (0.75)	3.02 (0.64)	3.20 (0.56)	1,178	0.00	.951	10.59	.001	
TTQ: Inspirational motivation	3.12 (0.62)	2.87 (0.90)	2.95 (0.82)	3.17 (0.68)	1,178	0.02	.822	13.89	<.001	
TTQ: Intellectual stimulation	2.90 (0.66)	2.63 (0.75)	2.68 (0.71)	2.81 (0.70)	1,178	0.64	.426	9.07	.003	
TTQ: Individualized considera.	3.16 (0.66)	3.00 (0.80)	3.02 (0.67)	3.17 (0.65)	1,178	0.00	.922	6.73	.010	
<u>Transactional leadership</u>										
MSLS: Positive feedback	3.73 (0.76)	3.70 (0.88)	3.52 (0.71)	3.78 (0.72)	1,178	1.43	.233	4.28	.040	
MSLS: Negative feedback	3.17 (0.97)	3.08 (1.03)	2.99 (0.82)	3.13 (0.98)	1,178	0.05	.822	1.79	.183	
<u>Decision-making leadership</u>										
MSLS: Active management	3.25 (0.86)	3.12 (0.88)	3.04 (0.92)	3.40 (0.80)	1,178	1.11	.293	10.23	.022	
MSLS: Passive management	2.74 (0.10)	2.39 (1.01)	2.46 (1.05)	2.68 (1.07)	1,178	0.29	.590	7.47	.007	

Transformational Leadership and Perceived Performance

Starting by analyzing the athletes' perceptions of transformational leadership according to perceived achievement of individual goals, multivariate tests indicated significant differences in idealized influence, Wilks' $\lambda = .97$, $F(1, 178) = 1.20$, $p = .014$, $\eta^2 = .03$. Athletes with higher perceptions of individual goal achievement showed increased T1 to T2 perceptions of their coaches' idealized influence through the season, while athletes with lower perceptions of individual goal achievement showed decreased T1 to T2 perceptions of idealized influence through the season. Also, tests of *between-subjects* effects indicated that athletes with higher perceptions of individual goal achievement reported higher perceptions of their coaches' inspirational motivation, intellectual stimulation, and individualized consideration than athletes with lower perceptions of individual goal achievement.

Regarding relationships between athletes' perceptions of goal achievement and their perceptions of their coaches' transformational leadership, multivariate tests indicated significant differences in idealized influence, Wilks' $\lambda = .94$, $F(1, 178) = 10.59$, $p = .014$, $\eta^2 = .06$, inspirational motivation, Wilks' $\lambda = .93$, $F(1, 178) = 13.89$, $p < .001$, $\eta^2 = .07$, intellectual stimulation, Wilks' $\lambda = .95$, $F(1, 178) = 9.07$, $p = .003$, $\eta^2 = .05$, and individualized consideration, Wilks' $\lambda = .96$, $F(1, 178) = 6.73$, $p = .010$, $\eta^2 = .04$. There were also significant results for the within-subjects, factor showing that athletes with higher perceptions of team goal achievement started the season attributing less transformational leadership to their coaches than did athletes with lower perceptions of team goal achievement, while, at the end of the season, athletes with higher perceptions of team goal

achievement attributed more transformational leadership to their coaches than did athletes with lower perceptions of team goal achievement.

Transactional Leadership and Perceived Performance

Regarding the relationship between athletes' perceptions of individual goals and their perceptions of coaches' transactional leadership, multivariate tests indicated significant differences in positive feedback, Wilks' $\lambda = .95$, $F(1, 178) = 9.09$, $p = .003$, $\eta^2 = .05$. Athletes with higher perceptions of individual goal achievement reported increased T1 to T2 perceptions of coaches' positive feedback through the season, while athletes with lower perceptions of individual goal achievement reported decreased T1 to T2 perceptions of their coaches' positive feedback.

Regarding the relationship between athletes' perceptions of team goal achievement and their perceptions of their coaches' transactional leadership, multivariate tests indicated significant differences for positive feedback, Wilks' $\lambda = .98$, $F(1, 178) = 4.28$, $p = .040$, $\eta^2 = .02$. The within-subjects factor highlighted that athletes with higher perceptions of team goal achievement reported increased T1 to T2 perceptions of positive feedback, while athletes with lower perceptions of team goal achievement reported decreased T1 to T2 perceptions of their coaches' positive feedback.

Decision-making Leadership and Perceived Performance

Multivariate tests were non-significant for achievement of individual goals, but *between-subjects* effects revealed significant results for active management, showing that athletes who perceived higher individual goal achievement attributed higher active management to their coaches, compared to athletes who perceived lower individual goal achievement.

Regarding the relationship between athletes' perceptions of decision-making leadership and their perceptions of achievement of team goals, multivariate tests were significant for perceptions of the coaches' active management, Wilks' $\lambda = .95$, $F(1, 178) = 10.23$, $p = .002$, $\eta^2 = .05$, and passive management, Wilks' $\lambda = .96$, $F(1, 178) = 7.47$, $p = .007$, $\eta^2 = .04$. The within-subjects factor revealed significant results, showing that athletes with higher perceptions of team goal achievement started the season attributing less active and passive management to their coaches than athletes with lower perceptions of team goal achievement; but, at the end of the season, athletes with higher perceptions of team goal achievement attributed more active and passive management leadership to their coaches than did athletes with lower perceptions of team goal achievement.

Differences in athletes' perceptions of leadership according to sport performance were also analyzed for the three domains of leadership (e.g. transformational leadership, transactional leadership, and decision-making leadership). Results are presented below, and in Table 2.

Transformational Leadership and Actual Sport Performance

For transformational leadership and actual sport performance, multivariate tests were non-significant, but *between-subjects* effects indicated significant results, showing that athletes with higher actual sport performance perceived lower inspirational motivation and intellectual stimulation from their coaches than did athletes with lower sport performance.

Transactional Leadership and Actual Sport Performance

For transactional leadership and actual sport performance, multivariate tests indicated significant differences for athletes' perceptions of their coaches' negative feedback, Wilks' $\lambda = .94$, $F(1, 120) = 7.91$, $p = .006$, $\eta^2 = .06$. The within-subjects factor

showed that athletes with higher sport performance decreased the perceptions of their coaches' negative feedback between T1 and T2, while athletes with lower sport performance increased the perceptions of negative feedback between T1 and T2.

Decision-making Leadership and Actual Sport Performance

For decision making leadership and actual sport performance, multivariate tests were significant for perceptions of coaches' passive management, Wilks' $\lambda = .94$, $F(1, 120) = 0.24$, $p = .005$, $\eta^2 = .07$. Athletes with higher sport performance started the season attributing more passive management to their coaches than did athletes with lower sport performance; but at the end of the season, athletes with higher sport performance attributed less passive management leadership to their coaches than did athletes with lower sport performance.

Table 2
Differences in Athletes' Perception of Leadership According to Sport Performance

Leadership dimensions	<u>Time 1</u>		<u>Time 2</u>		<i>df</i>	Between-subjects factor		Within-subjects factor	
	Lower sport performance <i>M (SD)</i>	Higher sport performance <i>M (SD)</i>	Lower sport performance <i>M (SD)</i>	Higher sport performance <i>M (SD)</i>		<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
<u>Transformational leadership</u>									
TTQ: Idealized influence	3.25 (0.62)	3.04 (0.73)	3.18 (0.48)	3.11 (0.61)	1,120	2.11	.149	1.20	.276
TTQ: Inspirational motivation	3.16 (0.67)	2.86 (0.88)	3.22 (0.55)	3.03 (0.82)	1,120	4.37	.039	0.67	.415
TTQ: Intellectual stimulation	2.90 (0.66)	2.74 (0.73)	3.00 (0.53)	2.67 (0.78)	1,120	5.99	.016	1.31	.254
TTQ: Individualized considera.	3.13 (0.69)	3.05 (0.75)	3.17 (0.53)	3.13 (0.73)	1,120	0.33	.568	0.07	.789
<u>Transactional leadership</u>									
MSLS: Positive feedback	3.77 (0.65)	3.86 (0.77)	3.75 (0.60)	3.73 (0.78)	1,120	0.09	.763	0.59	.445
MSLS: Negative feedback	2.90 (0.87)	3.19 (1.10)	3.15 (0.76)	2.85 (0.99)	1,120	0.00	.970	7.91	.006
<u>Decision-making leadership</u>									
MSLS: Active management	3.26 (0.71)	3.26 (0.93)	3.31 (0.72)	3.39 (0.84)	1,120	0.11	.742	0.24	.626
MSLS: Passive management	2.58 (1.08)	2.78 (1.08)	2.98 (1.08)	2.48 (0.98)	1,120	1.01	.318	8.33	.005

Discussion

Past research findings point to a need to study the relationship between perceived leadership and team/organizational performance (Gomes, 2014; Kaiser et al., 2008; Yukl, 2008). Accordingly, this study sought to analyze whether athletes' perceptions of their coaches' leadership would differ in accordance with the perceived achievement of individual and team goals (subjective measures) and/or actual sport performance (objective measure). Our main conclusion is that athletes evaluate coaches differently in accordance with their perceptions of higher and lower goal achievement at individual and team levels and according to better and worse actual team performance.

Regarding the achievement of individual goals, we found that athletes with perceptions of higher individual goal achievement (versus those who perceived lower individual goal achievement) evaluated coaches' leadership more positively in all dimensions of transformational leadership, in one dimension of transactional leadership (e.g. positive feedback), and in one dimension of decision-making leadership (e.g. active management). For team goals, athletes who perceived higher achievement of team goals started the sport season by evaluating their coaches less positively than athletes who perceived lower team goal achievement; but they finished the season evaluating their coaches more positively than athletes who perceived lower team goal achievement. This pattern of results was observed for all four dimensions of transformational leadership, one dimension of transactional leadership (positive feedback), and both dimensions of decision-making leadership. This coaching pattern, described by transformational leadership, positive feedback from transactional leadership, and active management from decision-making leadership represents an "optimal leadership profile." In our study, this

perceived optimal leadership profile was related to the athletes' perceptions of high individual and team goal achievement, lending support to conceptual proposals regarding the impact of different leadership behaviors on team members, highlighting the importance of behaviors related to transformational leadership (Bass & Riggio, 2006; Gomes, 2014; Rowold, 2006).

Overall, perceived achievement of individual and team goals was related to a better evaluation of coaches' leadership, echoing other findings (Chelladurai, 2007; Horn, 2008; Jowett, 2007). However, our results suggested that the relationship between perceptions of coaches' leadership behaviors may be different when comparing perceived individual and perceived team goals achievement. At the individual level, the perception of successful achievement of established goals throughout the season (as demonstrated by between-subjects factors differences) was most important, while at the collective level, achieving the established goals at the end of the season (as demonstrated by within-subjects factors differences) was the important aspect. Thus, athletes' perceptions of coaches' leadership differ when athletes consider their individual goals versus team goals. It is interesting to note that past research has already demonstrated that the relationship between some forms of leadership (e.g. charismatic leadership) and performance is different, depending on whether it is examined at the individual or group level (DeGroot, Kiker, & Cross, 2000). Similarly, our study also indicated that the relationship between leadership characteristics and goal achievement differs when achievement is considered at individual versus team levels.

We also studied athletes' perceptions of their coaches' leadership in relationship to actual sport performance, and we obtained two distinct findings. In the case of perceptions

of coaches' inspirational motivation and intellectual stimulation (both aspects of transformational leadership), we found that athletes with higher sport performance (versus those with lower performance) evaluated their coaches less positively in these domains through the season. However, athletes with higher sport performance (versus those with lower performance) started the season by attributing more negative feedback and passive management to their coaches but ended the season by attributing less negative feedback and passive management to their coaches. There is past evidence that athletes with better sport performance evaluate their coaches more positively (Mata & Gomes, 2013). Nevertheless, our results add complexity to this picture. We found that athletes with lower sport performance perceived their coaches to be exhibiting behaviors of inspirational motivation and intellectual stimulation throughout the season, but at the end of the season, these lower performing athletes (versus higher performing athletes) attributed more negative feedback and passive management to their coaches. Perhaps these coaches tried to increase the athletes' performance during the season by setting high expectations for all athletes (inspirational motivation) and by encouraging athletes to find new solutions to problems that occurred during the sport season (intellectual stimulation). However, when confronted with less positive results, they may have responded more negatively to mistakes of athletes (negative feedback) and assumed less involvement in the process of decision-making (passive management). There is little other data exist on this subject in past literature, except that coaches can vary their behaviors according to their career success (Webster, Hunt, & LaFleche, 2013).

This study has some limitations. Although we adopted a repeated measures design to study changes in perceptions through the sport season, we cannot assume a specific

causal direction in the relationships we observed between athletes' perceptions of their own performance and their perceptions of coaching behaviors. Increasing the number of data collection occasions (at least three along the season) by using longitudinal methodology might bring deeper insight regarding these relationships. Also of note, we studied athletes' perceptions of these coaching behaviors, while others' perceptions of coaching behaviors (e.g., the coaches themselves, other coaches, neutral parties, etc.) might also be of interest. Finally, we studied males only and concentrated on a single sport, meaning that future researchers should extend this research to other sports and athletes of both genders.

Our results have some implications for sports agents. One of the most important is that the "optimal leadership profile" (emphasizing transformational leadership over transactional and decision-making leadership) was related to athletes' more positive perceptions of their performance and even to their actual higher sport performance. These findings were most apparent for the subjective (perceived) evaluations of the athletes versus their objective (actual) sport performance. Sport psychologists can use this information to stimulate coaches to adopt behaviors associated with the optimal leadership profile when leading athletes and sport teams, and educational training programs for coaches might develop specific training modules to encourage these coaching behaviors. This implication is reinforced by research emphasizing the "augmentation effect" of transformational leadership (Bass, 1995) over other forms of leadership, as, for example, transactional leadership (Birasnav, 2014; Judge & Picolo, 2004). For example, the augmentation effect was confirmed in the sport context by Rowold (2006) in a study of martial arts, concluding that transformational leadership added unique variance beyond that of transactional leadership for predicting leader effectiveness. In addition, Gomes and

Resende (2014), in a study with futsal and soccer athletes, verified that transformational leadership added unique variance over decision-making leadership and transactional leadership for variables related to satisfaction with leadership and coach-athlete compatibility.

In sum, our study demonstrated that athletes' perceptions of their coaches' leadership varied according to the athletes' perceptions of individual versus team goal achievement, actual sport performance, and when in the sport season the perception data was acquired. This conclusion indicates the dynamic nature of coach-athlete relationship and the need to understand both the fluctuations on coaches' leadership styles and their potential consequences on athletes and teams.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

- Alvarez, O., Castillo, I., Molina-García, V., & Balague, G. (2016). Transformational leadership on the athletic field: An international review, *Revista de Psicología del Deporte*, 25(2), 319-326.
- Amorose, A. J. (2007). Coaching effectiveness: Exploring the relationship between coaching behavior and self-determined motivation. In M. S. Hagger & N. L. D. Chatzisarantis (Eds.), *Intrinsic motivation and self-determination in exercise and sport* (pp. 209–228). Champaign, IL: Human Kinetics.

- Arthur, C. A., Woodman, T., Ong, C. W., Hardy, L., & Ntoumanis, N. (2011). The role of athlete narcissism in moderating the relationship between coaches' transformational leader behaviors and athlete motivation. *Journal of Sport & Exercise Psychology*, 33(1), 3-19.
- Avolio, B. J., & Bass, B. M. (2004). *Multifactor leadership questionnaire. Manual and sampler set* (3rd ed). Redwood City: Mind Garden, Inc.
- Bass, B. M. (1995). Theory of transformational leadership redux. *Leadership Quarterly*, 6(4), 463-478.
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates Inc.
- Beauchamp, M. R., Barling, J., Li, Z., Morton, K. L., Keith, S. E., & Zumbo, B. D. (2010). Development and psychometric properties of the transformational teaching questionnaire. *Journal of Health Psychology*, 15(8), 1123-1134. doi: 10.1177/1359105310364175
- Birasnav, M. (2014). Knowledge management and organizational performance in the service industry: The role of transformational leadership beyond the effects of transactional leadership. *Journal of Business Research*, 67(8), 1622-1629. doi: 10.1016/j.jbusres.2013.09.006
- Chelladurai, P. (1993). Leadership. In R. N. Singer, M. Murphey, & L. K. Tennant (Eds.), *Handbook of research on sport psychology* (pp. 647-671). New York: Macmillan.
- Chelladurai, P. (2007). Leadership in sports. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 113-135). Hoboken, New Jersey: John Wiley & Sons.

- Chelladurai, P. (2012). Models and measurement of leadership in sport. In G. Tenenbaum, R. C. Eklund, & A. Kamata (Eds.), *Measurement in sport and exercise psychology* (pp. 433-442). Champaign, IL: Human Kinetics.
- Cronin, L. D., Arthur, C. A., Hardy, J., & Callow, N. (2015). Transformational leadership and task cohesion in sport: The mediating role of inside sacrifice. *Journal of Sport & Exercise Psychology, 37*, 23-36. doi: 10.1123/jsep.2014-0116
- DeGroot, T., Kicker, D. S., & Cross, T. C. (2000). A meta-analysis to review organisational outcomes related to charismatic leadership. *Canadian Journal of Administrative Sciences, 17*(4), 356–371. doi: 10.1111/j.1936-4490.2000.tb00234.x
- Dinh, J. E., Lord, R. G., Gardner, W. L., Meuser, J. D., Liden, R. C., & Hu, J. (2014). Leadership theory and research in the new millennium: Current theoretical trends and changing perspectives. *The Leadership Quarterly, 25*(1), 36-62. doi: 10.1016/j.leaqua.2013.11.005
- Fransen, K., Delvaux, E., Mesquita, B., & Van Puyenbroeck, S. (2018). The emergence of shared leadership in newly formed teams with an initial structure of vertical leadership: A longitudinal analysis. *Journal of Applied Behavioral Science, 54*(2), 140-170. doi: 10.1177/0021886318756359
- Gardner, W. L., Lowe, K. B., Moss, T. W., Mahoney, K. T., & Cogliser, C. C. (2010). Scholarly leadership of the study of leadership: A review of The Leadership Quarterly's second decade, 2000–2009. *The Leadership Quarterly, 21*, 922–958. doi: 10.1016/j.leaqua.2010.10.003

- Gomes, A. R. (2014). Transformational leadership: Theory, research, and application to sports. In C. Mohiyeddini (Ed.), *Contemporary topics and trends in the psychology of sports* (pp. 53-114). New York: Nova Science Publishers.
- Gomes, A. R., & Resende, R. (2014). Assessing leadership styles of coaches and testing the augmentation effect in sport. In C. Mohiyeddini (Ed.), *Contemporary topics and trends in the psychology of sports* (pp. 115-137). New York: Nova Science Publishers.
- Horn, T. S. (2008). Coaching effectiveness in the sport domain. In T. S. Horn (Ed.), *Advances in sport psychology* (3rd ed., pp. 239-267). Champaign, IL: Human Kinetics.
- Jowett, S. (2007). Interpersonal and structural features of Greek coach–athlete dyads performing in individual sports. *Journal of Applied Sport Psychology, 18*, 69–81. doi: 10.1080/10413200500471335
- Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology, 89*(5), 755–768. doi:10.1037/0021-9010.89.5.755
- Kaiser, R. B., Hogan, R., & Craig, S. B. (2008). Leadership and the fate of organizations. *American Psychologist, 63*(2), 96-110. doi: 10.1037/0003-066X.63.2.96
- Loughead, T. D., & Carron, A. V. (2004). The mediating role of cohesion in the leader behavior-satisfaction relationship. *Psychology of Sport and Exercise, 5*, 355-371. doi: 10.1016/S1469-0292(03)00033-5

- Mallett, C., & Côté, J. (2006). Beyond winning and losing: Guidelines for evaluating high performance coaches. *The Sport Psychologist, 20*(2), 213-221. doi: 10.1123/tsp.20.2.213
- Mata, R. T., & Gomes, A. R. (2013). Winning or not winning: The influence on coach-athlete relationships and goal achievement. *Journal of Human Sport and Exercise, 8*(4), 986-995. doi: 10.4100/jhse.2013.84.09
- Rowold, J. (2006). Transformational and transactional leadership in martial arts. *Journal of Applied Sport Psychology, 18*(4), 312-325. doi: 10.1080/10413200600944082
- Smoll, F. L., & Smith, R. E. (1980). Psychologically oriented coach training programs: Design, implementation, and assessment. In C. H. Nadeau, W. R. Halliwell, K. M. Newell, & G. C. Roberts (Eds.), *Psychology of motor behavior and sport – 1979*. Champaign, IL: Human Kinetics.
- Stenling, A., Ivarsson, A., Hassmén, P., & Lindwall, M. (2017). Longitudinal associations between athletes' controlled motivation, illbeing, and perceptions of controlling coach behaviors: A Bayesian latent growth curve approach. *Psychology of Sport & Exercise, 30*, 205-214. doi: 10.1016/j.psychsport.2017.03.002
- Stenling, A., & Tafvelin, S. (2014). Transformational leadership and well-being in sports: The mediating role of need satisfaction. *Journal of Applied Sport Psychology, 26*, 182-196. doi: 10.1080/10413200.2013.819392
- Webster, C. A., Hunt, K., & LaFleche, M. (2013). Are winning coaches more autonomy-supportive? Examining the context of varsity boys' soccer. *Journal of Sport Behavior, 36*(2), 209-232.

Yukl, G. (2008). How leaders influence organizational effectiveness. *The Leadership Quarterly* 19, 708–722. doi:10.1016/j.leaqua.2008.09.