Abstract:

This study tested newly advanced theoretical predications about mechanisms by which authentic leadership has its positive effects on players’ psychological resources and team engagement. Specifically, we tested a mediation model, in which positive climate is the key social mechanism by which authentic leaders influence followers’ psychological capital and team engagement. Moreover, we examined the role of leader–follower characteristics in authentic leadership dynamics, particularly the role of race and gender. Quantitative data were obtained from 119 student-athletes representing 15 NCAA Division I men’s and women’s basketball teams. Results indicate that positive team climate mediated the relationships between authentic leadership and players’ psychological capital and engagement, and this relationship was moderated by gender. Results are discussed relative to the effects of gendered leadership, and implications for coaches and authentic leadership theory are presented.

Keywords: college sports | gender | positive climate | psychological involvement | social identity

Article:

“Leadership is not about titles, positions or flowcharts. It is about one life influencing another.”—John Maxwell

One of the most widely applied theoretical frameworks of leadership in sport research is transformational leadership. Transformational leadership theory treats leadership as a process by which leaders employ positive role modeling; stimulate followers’ intellectual creativity and autonomy; and give followers’ individualized consideration and inspirational motivation to make followers feel more engaged, challenged, and supported (Bass & Riggio, 2006). Transformational leadership is the dominant theory guiding Chelladurai’s (2007) Multidimensional Model for Leadership in Sport, Pursuit of Excellence in Sport Behavior model, and Vallée and Bloom’s (2005) Conceptual Model of Expert Coaches’ Perspectives on Building a Successful Program. In detailing leadership in Olympic sport, Din and Paskevich (2013) advanced an integrated model of Olympic sport leadership that drew from Chelladurai’s Pursuit of Excellence in Sport Behavior model and Côté, Salmela, Trudel, Baria, and Russell’s (1995)
Coaching Model, a conceptual framework delineating cognitive components of effective leadership.

These models make a significant contribution to sport leadership literature, but given the numerous ethical quandaries in amateur and professional sports (e.g., University of North Carolina at Chapel Hill academic scandal, steroid use in Major League Baseball, Olympic blood doping scandals, Baylor University basketball scandal), the inclusion of leadership theories that consider ethical components of leadership, such as ethical, servant, and authentic leadership, is imperative (Burton & Welty Peachey, 2013; DeSensi, 2014). DeSensi (2014) encouraged researchers to consider “ethical perspectives regarding the ethos, character building and moral development of intercollegiate sport” (p. 61). Roby (2014) further asserted that persons in leadership roles must have values of conviction, not values of convenience, and described the importance of values-driven leadership—leading in a manner that reflects one’s stated values.

Authentic leadership was developed out of the transformational leadership approach; but in contrast to transformational leadership, authentic leadership places a particular emphasis on recognizing the crucial importance of the moral and ethical elements of leadership (Caza & Jackson, 2011; Luthans & Avolio, 2003; Michie & Gooty, 2005). Authentic leaders act in accord with their values, as opposed to acting in response to rewards, punishments, and external pressures to appease others (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). Given this focus, authentic leadership theory was chosen as a framework to investigate whether basketball coaches’ leadership behaviors have a positive effect on two important performance influencers: players’ psychological development and engagement. Players’ psychological capital (PsyCap) refers to their psychological state of mind (Luthans, Avolio, Avey, & Norman, 2007). Competitive sports are an important area for studies on PsyCap as its four components of high self-efficacy, optimism, hope, and resilience have been linked to increased athletic performance (e.g., Gordon, 2008; McCarthy, 2011). Task engagement has also been identified as an important factor for athletic success (Wood, 2014).

Authentic leadership and its effects have been increasingly explored in the management literature and more recently in the sport management literature. For example, Kim, Kim, and Reid (2017) found that Division I head football coaches’ authentic leadership increased assistant football coaches’ job satisfaction as a result of enhanced PsyCap. Kim, Perrewe, Kim, and Hyung (2017) similarly predicted that authentic leadership impacts sport employees’ job satisfaction, organizational citizenship behaviors, job performance, and psychological well-being as a result of increased PsyCap. These researchers stressed the need to examine the effects of authentic leadership in other sports contexts. Hence, this study contributes to the sport management and authentic leadership literatures by testing new theoretical predictions about mechanisms by which authentic leadership has its positive effects on athletes’ PsyCap and engagement. More specifically, we posit a mediation model, in which positive team climate is the key social mechanism by which authentic coaches influence athletes, and this social mechanism produces two psychological changes among athletes—increased PsyCap and team engagement. In consideration of the importance of identity, we further explore the role of gender and race in the effects of authentic leadership.

**Theoretical Framework**
Avolio, Luthans, and Walumbwa (2004) describe authentic leaders as “individuals who know who they are and what they think and are perceived by others as being aware of their own values, moral perspective, knowledge and strengths” (p. 4). The defining trait of authentic leaders is their ability to foster development and excellence among followers (Avolio & Luthans, 2006; Gardner et al., 2005; Gardner & Schermerhorn, 2004; Leroy, Anseel, Gardner, & Sels, 2015). By knowing themselves and being true to that, authentic leaders are more effective because people respond to this authenticity with greater satisfaction and effort (Giallonardo, Wong, & Iwasiw, 2010; Leroy et al., 2015; Wang, Sui, Luthans, Wang, & Wu, 2014). In this article, we draw on evidence from organizational contexts in business, professional sport, and amateur sport, as studies have shown that the effects of authentic leadership on followers are comparable across contexts. For example, authentic leadership is positively correlated with team success, team commitment, and athlete satisfaction (Garza, 2016; Kim, Kang, & Lee, 2013; Tracey, 2016), just as is with business unit success, employee commitment, and satisfaction (Banks, McCauley, Gardner, & Guler, 2016; Caza & Jackson, 2011).

Extant studies have identified four primary behavioral and attitudinal tendencies of authentic leaders: self-awareness of their various strengths, weaknesses, and idiosyncrasies; being genuine and transparent in relationships; using balanced and objective decision making; and expressing a consistent ethical-moral perspective (Avolio & Gardner, 2005; Avolio & Walumbwa, 2014; Luthans & Avolio, 2003; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). These authentic leadership behaviors have been found to have a positive effect on an array of outcomes, including trust in leadership (Banks et al., 2016; Clapp-Smith, Vogelgesang, & Avey, 2009; Wong & Cummings, 2009), follower job satisfaction and commitment (Banks et al., 2016; Jensen & Luthans, 2006), follower citizenship behaviors and work engagement (Banks et al., 2016; Giallonardo et al., 2010; Wong, Spence Laschinger, & Cummings, 2010), and increased productivity and performance (Banks et al., 2016; Hannah, Walumbwa, & Fry, 2011; Wang et al., 2014; Wong & Cummings, 2009). These findings, combined with the growing ethical issues in sport, make authentic leadership an important construct to investigate among athletic coaches.

Authentic Leadership and PsyCap

PsyCap refers to an individual’s “positive psychological state of development” (Luthans et al., 2007, p. 3). PsyCap is important as athletes strive to overcome obstacles and improve their athletic prowess and success on the field or court (Ratten, 2015). It is a relatively stable, state-like constellation of cognitive resources (Luthans et al., 2007) comprised of four components: self-efficacy, which is belief in one’s abilities to succeed in a specific activity; an optimistic outlook; hope in achieving goals; and resilience to recover from adversity (Youssef & Luthans, 2007). All four components contribute to willingness to take on and pursue effective behavior and are associated with many attitudes and behaviors known to contribute to athletic performance (Curry & Snyder, 2000; Feltz, Short, & Sullivan, 2008; Snyder, 2002).

Self-efficacy is a person’s belief that he or she can successfully accomplish requisite behaviors needed to produce an outcome (Bandura, 1977). Given the stressful nature of athletic competitive environments, efficacy expectations are important, as they are a major determinant
of what behaviors people pursue, “how much effort they will expend, and of how long they will sustain effort” (Bandura, 1977, p. 194). Self-efficacy has been found to be consistently and positively correlated with athletic performance and achievements (Feltz et al., 2008; Ortega, Olmedilla, Baranda, & Gomez, 2009). In addition to high self-efficacy, athletes’ sense of optimism and hope about accomplishing a task are key factors influencing their effort and results (Luthans et al., 2007). Optimism refers to positive expectancies regarding performance outcomes, whereas hope is defined as “the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways” (Snyder, 2002, p. 249). Hope and optimism have been found to be key traits of high athletic performers (Gordon, 2008; Woodman et al., 2009). Finally, Luthans, Avey, Avolio, Norman, and Combs (2006) identified resilience, or one’s ability to recover from adversity, as critical to improved performance. The terms “resilient, resilience, and resiliency are often used by coaches and the media to describe favorable responses of athletes or teams to incidents such as catastrophic injuries, prolonged slumps, or the dreaded occurrence of ‘choking’” (Galli & Vealey, 2008, p. 316). Athletes’ resilience in responding to the challenges faced in an ever-changing sports environment has a significant impact on continuous pursuit of a goal (Ratten, 2015).

Coaches perform a critical role in promoting athletes’ self-efficacy (Feltz et al., 2008; Sari & Bayazit, 2017; Saville et al., 2014), optimistic outlook (deBeaudrap, Dunn, & Holt, 2017), and resilience to persist through challenges and adversity (Galli & Vealey, 2008, White, Bennie, & McKenna, 2015). More generally, Newman, Ucbasaran, Zhu, and Hirst’s (2014) review of the PsyCap literature identified leadership behavior as one of the primary antecedents of followers’ PsyCap. Indeed, authentic leadership has consistently been found to increase followers’ PsyCap (Caza, Bagozzi, Woolley, Levy, & Barker Caza, 2010; Gardner & Schermerhorn, 2004; Rego, Sousa, Marques, & Cunha, 2012; Story, Youssef, Luthans, Barbuto, & Bovaird, 2013). Gardner et al. (2005) argue that authentic leaders “draw from the positive psychological states that accompany optimal self-esteem and psychological well-being, such as confidence, optimism, hope and resilience, to model and promote the development of these states in others” (p. 345). For instance, authentic leaders’ hopefulness, trustworthiness, and positive approaches to problem solving provide them with the means to encourage followers’ hope, self-efficacy, and optimism toward goal attainment (Avolio et al., 2004). Authentic leaders also capitalize on their “individual resilience by ensuring that others have the support they need to (1) recover from adversity, and (2) . . . thrive when faced with high levels of positive change” (Gardner & Schermerhorn, 2004, p. 278). Hence, extant research suggests that authentic leaders can influence PsyCap in their followers (Kim, Kim, & Reid, 2017).

H1: Authentic leadership increases players’ PsyCap.

**Authentic Leadership and Task Engagement**

An athlete’s level of engagement plays a significant role in performance outcomes. Engagement refers to the investment of one’s whole self in a role; the engaged individual devotes great cognitive, emotional, and physical energy toward acting in a role (Kahn, 1992; Rich, LePine, & Crawford, 2010). Engaged individuals are described as being “psychologically present, fully there, attentive, feeling, connected, integrated, and focused in their role performances” (Rich et al., 2010, p. 619). Engaged athletes work harder in practice and competitions; and
subsequently have better performance and results compared with unengaged athletes. As noted by Wood (2014), “the ability of an athlete to . . . be fully engaged in performance will be a key determinant of success” (para. 6).

Players’ individual differences are correlated with engagement levels (Hodge, Lonsdale, & Jackson, 2009), but a coach’s leadership behaviors and style also have a powerful influence on players’ level of engagement (Curran, Hill, Hall, & Jowett, 2015; Duda, 2013; Duda & Appleton, 2016). Coaches play a significant role in creating a positive psychological and motivational climate that impacts the quality of athlete engagement (Duda & Balaguer, 2007; Duda & Treasure, 2014). For example, in Bakker, Oerleman, Demerouti, Slot, and Ali’s (2011) study of soccer players, coach social support and feedback were key factors identified by athletes as contributing to them being totally engaged in their sport. Followers with good relations with leaders are more trusting of their leaders (Burke, Sims, Lazzara, & Salas, 2007; Caza, Zhang, Wang, & Bai, 2015), allowing them to more fully devote themselves to their work, rather than protecting themselves from leader threat (Mayer, Davis, & Schoorman, 1995; Mayer & Gavin, 2005). If they trust leaders, followers give more and better effort (Colquitt, Scott, & LePine, 2007; Dirks & Ferrin, 2002; Lapierre, 2007; Whitener, Brodt, Korsgaard, & Werner, 1998). Authentic leadership has been shown to increase follower trust, promote a positive psychological climate, and increase engagement because authentic leaders are consistent in their values, transparent with followers, and objective in their decision making (Banks et al., 2016; Clapp-Smith et al., 2009; Giallonardo et al., 2010; Gill & Caza, 2015). Accordingly, we hypothesize as follows:

H2: Authentic leadership increases players’ task engagement.

Mediating Role of Social Mechanisms

Authentic leadership has been shown to have a positive effect on numerous group and individual outcomes, including PsyCap and task engagement, but research investigating mechanisms that mediate the effects of authentic leadership is limited. Likewise, extant research has focused on the many important consequences of increased PsyCap such as team potency (Rego, Vitória, Magalhães, Ribeiro, & Cunha, 2013), work engagement (Banks et al., 2016; Giallonardo et al., 2010), and personal identification (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Wong et al., 2010), but far less work has examined the sources of PsyCap. Some empirical evidence, however, has provided support for supportive group climate (Wong & Cummings, 2009) as a possible mediating factor between leadership and PsyCap.

Supportive climate has been defined in management research as “the overall amount of perceived support employees receive from their immediate peers, other departments, and their supervisor that they view as helping them to successfully perform their work duties” (Luthans, Norman, Avolio, & Avey, 2008, p. 225). The concept of supportive group climate refers to the psychosocial environment that coaches and athletes find themselves in, including the quality of support, feedback, and interactions. A supportive environment, or positive team climate as it is more commonly termed in sport, is influenced by “the quantity, quality, and sequence of the interactions” that occur among players and coaches (Fisher, Mancini, Hirsch, Proulx, & Staurowsky, 1982, p. 388). Team climate is an important factor to consider, as it is highly
correlated with various team and player outcomes, including athletes’ well-being and engagement in sport (Appleton & Duda, 2016), feelings of success (Smith, Fry, Ethington, & Li, 2005), and intentions to continue sport participation (Alvarez, Balaguer, & Castillo, 2012).

A coach’s behavior is a key determinant of the supportiveness of group climate (Çağlar, Aşçi, & Uygurtas, 2017; Fisher et al., 1982). Empirical evidence has shown that authentic leaders contribute to more positive and supportive climates (Walumbwa et al., 2008; Woolley, Caza, & Levy, 2011), as they (a) foster feelings of trust and care as they put followers and organizational interests ahead of their own, (b) behave in moral and ethical ways and encourage followers to do the same, and (c) promote and support collaboration and teamwork among followers (Avolio et al., 2004; Walumbwa et al., 2008). Team members who perceive the climate to be supportive may experience higher levels of PsyCap, with subsequently better performance (Luthans et al., 2005; Luthans, Norman, et al., 2008). Moreover, a group climate that embodies positive, supportive values contributes to a sense of meaningfulness and, thus, to increased engagement (Rich et al., 2010). For example, Çağlar et al. (2017) investigation of youth basketball, soccer, volleyball, and handball players found the climates created by coaches were significant predictors of athletes’ engagement. As such, perceptions of positive team climate should mediate the effect of authentic leadership on players’ PsyCap and their task engagement.

H3: The effect of authentic leadership on follower PsyCap is mediated by team climate.

H4: The effect of authentic leadership on follower team engagement is mediated by team climate.

Effect of Leader–Follower Demographic Dissimilarity

A consideration of the effects of leader–follower demographic dissimilarity is imperative to having a better understanding of the effects of authentic leadership, as a person’s race and gender affect individuals’ perceptions of authenticity (Eagly, 2005), which subsequently can affect authentic leadership outcomes and individual and group performance (Woolley et al., 2011). Eagly (2005) posited that “leaders categorized as members of outsider social groups—that is, groups whose members have not traditionally had access to particular leadership roles—may not possess legitimacy sufficient to inspire followers” (p. 462). In accordance with this proposition, empirical evidence suggests that the relationship between authentic leadership and PsyCap is weaker among female followers (Caza et al., 2010; Woolley et al., 2011), although the reasons for this effect have not yet been determined. Similarly, Pittinsky and Tyson (2005) found race to be a very significant moderator of authentic leadership perceptions. Specifically, if a Black leader is seen to have not lived a life that was “truly” Black, they are less likely to be supported and seen as authentic by followers, and these differences are greater between Black and White observers.

To understand such findings we look to the similarity-attraction paradigm (Byrne, 1971). According to the paradigm, people who are similar to one another have high interpersonal attraction and liking toward each other. This increased attraction can be based on actual surface-level similarities (e.g., race, gender, age) or on perceived deep-level similarities, such as beliefs and values (Chattopadhyay, 1999; Tsui & O’Reilly, 1989). Perceived and actual similarity have
been found to enhance leader–follower relationships (Turban, 1990; Vecchio & Brazil, 2007), influence followers’ personal identification with their leaders, and their feelings of optimism, an important component of PsyCap (McColl-Kennedy & Anderson, 2005). These variables have, in turn, been found to influence numerous outcomes. For instance, significant inverse relationships have been found between an individual’s similarity with a group or leader and turnover intentions (Jackson et al., 1991), organizational attachment (Tsui, Egan, & O’Reilly, 1992), and social integration (O’Reilly, Caldwell, & Barnett, 1989). Within the sports context, Aicher and Sagas’ (2010) investigation of the effect of gender similarity between head coaches and players of Division I women’s basketball, softball, and volleyball teams found a significant increase in teams’ winning percentage when leadership changed from a male to a female head coach. The opposite effect was found when changing from a female to male head coach.

Thus, drawing from extant research and the similarity-attraction paradigm (Byrne, 1971), we expect authentic leadership to have an increased positive effect on PsyCap and team engagement when coach and athlete are of similar race and gender. This increase is expected to occur due to a more positive work climate (see Figure 1). Accordingly, we hypothesize the following:

H5: The effect of authentic leadership on players is moderated by similarity of coach–player race such that authentic leadership has a larger positive effect on group climate when the coach and player are of the same race.

H6: The effect of authentic leadership on followers is moderated by similarity of leader–follower gender such that authentic leadership has a larger positive effect on group climate when the coach and player are of the same gender.

Figure 1. Theoretical model and summary of findings. Significant relationships in the data are represented by a solid line. (Broken lines are nonsignificant.)

Methods

Sample

The population was comprised of Division I men’s and women’s basketball student-athletes. Given the historically low response rates among these groups, all Division I women’s (n = 345) and men’s (n = 346) basketball players were invited to participate. We initially contacted 604 head coaches by e-mail because e-mail addresses for 65 of the men’s coaches and 22 of the
women’s coaches could not be located. A total of 44 coaches responded, but only 15 followed up with player surveys. There were 12 women’s teams, coached by three males (one African American and two White) and nine White females; and three men’s teams, all coached by White males. The coaches had been head coaches for an average of 17.55 years (range: 1–33 years) and had academic progress rate scores between 843 and 996. The final sample consisted of 119 players, representing nine conferences: Southland, Southern, Ivy League, Horizon League, Sun Belt, Big Sky, A-10, Ohio Valley, and the Summit League. The players’ ages ranged from 18 to 23 years, with the majority being 19 and 21. There were 44 of the athletes identified as Black (17 males and 27 females), 60 as White (10 males and 50 females), four Hispanic females, three Asian females, and eight identified as other (one male and seven females).

Data Collection Method

Obtaining responses from NCAA Division I student-athletes poses challenges due to their high profile and guarded nature; thus, to maximize the response rate, we used a small pilot group of head coaches to assist in articulating the research study’s topical salience to coaches and athletes. Based on their feedback, data were collected through paper surveys. All head basketball coaches were sent an e-mail about the study at different times between March and April, dependent on their results in the NCAA and NIT championships. Follow-up e-mails were sent 2 weeks after the initial mailing to those coaches who had not yet responded. Coaches were asked to identify a member of the athletic department staff who would distribute the student-athlete surveys. All of the designated survey distributors were players’ athletic academic advisors or assistant coaches. Upon receiving responses from each coach, questionnaires for the student-athletes, along with a stamped, return addressed envelope, were sent to the designated athletic department contact to distribute to the student-athletes. Standardized instructions and envelopes for each survey were provided. It is unknown as to whether the surveys were completed in a team meeting or privately, but to reduce any coercion or social desirability bias in responses, the instructions recommended that all of the athletes be informed, “the survey is voluntary and they are not required to fill it out. Individual envelopes are provided so that you will not see any of the athletes’ responses or know whether they completed the survey or not.”

Measures

To test the hypothesized relationship between authentic leadership and players’ PsyCap, the 12-item, short version of the Psychological Capital Questionnaire (Luthans et al., 2007) was used. Respondents used a 5-point scale (1 [strongly disagree] to 5 [strongly agree]) to rate their agreement with statements assessing the four components of PsyCap. Sample questions included “I usually take stressful things in stride” and “I always look on the bright side of things.” The scale demonstrated acceptable internal consistency (α = .88).

Coaches’ authentic leadership was measured using the 16-item Authentic Leadership Questionnaire (ALQ; Walumbwa et al., 2008), which contains items describing behaviors that leaders could engage in and assesses the extent to which followers perceive their leaders as behaving in these ways. Players rated their coaches using questions such as “My coach understands how specific actions impact others,” “My coach encourages everyone to speak their mind,” and “My coach asks me to take positions that support my core values.” Players used a 5-
point scale (1 [strongly disagree] to 5 [strongly agree]) to rate their agreement with each statement. The scale demonstrated acceptable internal consistency ($\alpha = .92$).

*Positive team climate* was measured with a 5-item scale developed by Avolio and Luthans (2006). Sample items rated on a scale from 1 (strongly disagree) to 5 (strongly agree) included “I am very positive about the overall prospects of my team” and “I can tell people what I really think in my team.” The scale demonstrated acceptable internal consistency ($\alpha = .84$).

Players rated their own *team engagement* with nine items from an engagement scale that assessed cognitive, affective, and behavioral commitment in organizations (Rich et al., 2010). Sample items rated on a scale from 1 (strongly disagree) to 5 (strongly agree) included “I exert my full effort when playing and practicing,” “I devote a lot of energy to basketball,” and “I try my hardest to perform well on the team.” The scale demonstrated acceptable internal consistency ($\alpha = .89$). Finally, to assess the role that demographic similarity plays in authentic leadership outcomes, players were also asked to provide their gender and race. Coach gender and race information were a matter of public record.

**Analytical Strategies**

The measurement qualities of the data and instruments were assessed prior to hypothesis testing. Confirmatory factor analysis (CFA) was conducted to examine the psychometric properties of the measures using maximum likelihood estimation in SPSS Amos 22 (Armonk, NY). As the data in the current study were collected from self-reports, Harman’s single-factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Podsakoff & Organ, 1986) was conducted to diagnose common method variance using both exploratory factor analysis and CFA procedures. The overall fit of measurement models was assessed by means of the following fit indices: standardized root mean square residual and root mean square error of approximation. According to Hu and Bentler (1999), using cutoffs of root mean square error of approximation > .06 in conjunction with standardized root mean square residual > .09 would provide reasonable protection against misspecified models.

Ordinary least squares regression analyses were performed to test H1 and H2. As players’ data were nested (i.e., players within teams) and failed to meet the regression assumption of independence, heteroskedasticity-consistent standard error estimators were employed in all regression analyses to account for nonindependence of observations and guard against potentially biased and inaccurate estimation. In particular, Hayes and Cai’s (2007) “HCREG” macro that offers heteroskedasticity-consistent methods for estimating standard errors in ordinary least squares regression was applied.

To examine the mediation hypothesized in H3 and H4 and the moderated mediation hypothesized in H5 and H6, the “PROCESS” macro for SPSS developed by Hayes (2013) was used. This macro incorporates the product-of-coefficients approach in conjunction with a bootstrapping procedure to directly assess mediation effects. Because the product of regression coefficients may not follow a normal distribution, nonparametric resampling procedures are preferred to parametric ones such as the Sobel test (Hayes, 2009; Preacher & Hayes, 2004, 2008; Shrout & Bolger, 2002). Bias-corrected and accelerated 95% bootstrap confidence
intervals (CIs), based on 2,000 resampled draws, were utilized to evaluate the statistical significance of mediation effects (Preacher & Hayes, 2004, 2008).

Conditional process analysis (Hayes, 2013) was employed to detect the predicted moderated mediation. The index of moderated mediation was assessed to reveal the association between the indirect effect and the moderating effect, as per Hayes (2015). Prior to testing the moderating roles of coach–player racial and gender difference in the model, dummy-coded variables were created for coach–player racial and gender dissimilarity (similar = 0 and different = 1).

Results

Measurement Evaluations

Although Walumbwa et al.’s (2008) ALQ, Luthans et al.’s (2007) Psychological Capital Questionnaire, and Rich et al.’s (2010) engagement scales each are theoretically described as second-order factors reflected in multiple subdimensions, their empirical use has been inconsistent. These three constructs have been empirically modeled as unidimensional or as higher-order factors (e.g., Alfes, Shantz, Truss, & Soane, 2013; Clapp-Smith et al., 2009; Gill & Caza, 2015; Rego et al., 2012; Rich et al., 2010; Walumbwa et al., 2008). Consistent with theory, the baseline measurement model that was assessed included four subdimensions of authentic leadership loading on a second-order authentic leadership factor, four PsyCap subdimensions loading on a second-order PsyCap factor, and three subdimensions of engagement loading on a second-order engagement factor, with one first-order factor representing positive team climate. This baseline model was contrasted against two alternative models: (a) a four-factor structure, where each of the three multidimensional constructs was modeled as a single unidimensional first-order factor (Model 1 in Table 1) and (b) a single-factor model with all indicators loading on a common latent factor (Model 2).

Table 1. Fit Indices for Alternative Measurement Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Factor Structure</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\Delta \chi^2$</th>
<th>SRMR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>Three second-order factors (AL, PsyCap, and EG) and one first-order factor (TC)</td>
<td>1,437.75</td>
<td>803</td>
<td>-</td>
<td>.09</td>
<td>.08</td>
</tr>
<tr>
<td>Model 1</td>
<td>Four factors (AL, TC, PsyCap, and EG)</td>
<td>1,602.58</td>
<td>813</td>
<td>167.35*</td>
<td>.09</td>
<td>.09</td>
</tr>
<tr>
<td>Model 2</td>
<td>Single factor</td>
<td>2,364.53</td>
<td>819</td>
<td>962.82*</td>
<td>.14</td>
<td>.13</td>
</tr>
</tbody>
</table>

*Note. N = 119. SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; AL = authentic leadership; PsyCap = psychological capital; EG = engagement; TC = positive team climate. *p < .01.

In the initial model, one authentic leadership factor was estimated to have negative error variance, yielding an improper solution. This situation in the ALQ scale has been noted previously (Neider & Schriesheim, 2011). Assessment suggested that the irregularity was due to sample fluctuations, rather than misspecification, and that the error variance in question was not significantly different from zero. As such, consistent with recommended practice (Chen, Bollen, Paxton, Curran, & Kirby, 2001; Dillon, Kumar, & Mulani, 1987), subsequent models constrained that error variance to equal zero. After this adjustment, the baseline model provided a better fit with the data than the four-factor structure. Nonetheless, the fit indices of the baseline model
were close to or slightly above the cutoff values, $\chi^2(803) = 1,437.75$, $p < .001$, standardized root mean square residual = .09, root mean square error of approximation = .08. Given that all of the scales used in this study are well established and the sample size is relatively small for use in CFA tests, the fit of this measurement model was considered acceptable as all other psychometric indicators were good. Specifically, all indicators and subdimensions had factor loadings on the appropriate latent construct that exceeded the .32 threshold recommended by Tabachnick and Fidell (2007). Moreover, as shown in Table 2, the composite reliability values for all constructs exceeded the threshold of .70 (Hair, Black, Babin, & Anderson, 2010), suggesting adequate reliability. The average variance extracted values for all constructs were greater than the recommended cutoff value of .50 (see Table 2), which is indicative of convergent validity (Fornell & Larcker, 1981). According to Fornell and Larcker (1981), discriminant validity can be established if the square root of the average variance extracted value for each construct is greater than its interconstruct correlations. The square roots of the average variance extracted values for all four constructs were greater than their correlations with other constructs (see Table 2), indicating discriminant validity.

Table 2. CR, AVE, Correlation Matrix, and Descriptive Statistics

<table>
<thead>
<tr>
<th>Constructs</th>
<th>M</th>
<th>SD</th>
<th>CR</th>
<th>AVE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AL</td>
<td>3.69</td>
<td>0.66</td>
<td>.94</td>
<td>.83</td>
<td>.91</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. TC</td>
<td>4.10</td>
<td>0.69</td>
<td>.85</td>
<td>.53</td>
<td>.49**</td>
<td>.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. PsyCap</td>
<td>4.01</td>
<td>0.52</td>
<td>.91</td>
<td>.71</td>
<td>.50**</td>
<td>.71**</td>
<td>.84</td>
<td></td>
</tr>
<tr>
<td>4. EG</td>
<td>4.37</td>
<td>0.57</td>
<td>.93</td>
<td>.81</td>
<td>.25*</td>
<td>.72**</td>
<td>.74**</td>
<td>.90</td>
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</tbody>
</table>

Note. $N = 119$. Square roots of AVE on the diagonal. Correlation matrix was obtained from confirmatory factor analysis results using Amos 22. CR = composite reliability; AVE = average variance extracted; AL = authentic leadership; TC = positive team climate; PsyCap = psychological capital; EG = engagement.

In the diagnosis of common method variance, the exploratory factor analysis results suggested that a common factor accounted for only 29.95% of total variance. Additionally, a single-factor CFA model fitted the data very poorly and significantly worse than the second-order factor model (see Model 2 in Table 2). These results suggested that common method variance was not a severe threat to the current study.

Hypothesis Testing

H1 and H2 posited that authentic leadership would be positively related to PsyCap and engagement, respectively. Table 3 presents the results of regression analyses using heteroskedasticity-consistent standard error estimators. After controlling for the effects of players’ gender and team tenure, authentic leadership was a significant predictor of PsyCap ($b = .34, p < .01$), but not of engagement ($p = .07$). Thus, H1 was supported, but H2 was not.

H3 predicted that the effect of authentic leadership on follower PsyCap would be mediated by positive team climate. The results of mediation analyses suggested a significant indirect effect of authentic leadership on follower PsyCap through positive team climate (indirect effect = .18, standard error [SE] = .05, bias-corrected and accelerated 95% CI = [.09, .31]; see Table 3). Therefore, H3 was supported.
Table 3. Regression Results for Predicting Psychological Capital and Engagement

<table>
<thead>
<tr>
<th></th>
<th>Psychological Capital</th>
<th></th>
<th>Engagement</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step 1</td>
<td>Step 2</td>
<td>Step 1</td>
<td>Step 2</td>
</tr>
<tr>
<td></td>
<td>b</td>
<td>SE (HC)</td>
<td>b</td>
<td>SE (HC)</td>
</tr>
<tr>
<td>Gender</td>
<td>0.08</td>
<td>.10</td>
<td>-0.03</td>
<td>.10</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.01</td>
<td>.05</td>
<td>0.01</td>
<td>.04</td>
</tr>
<tr>
<td>AL</td>
<td>0.34*</td>
<td>.08</td>
<td>0.15</td>
<td>.08</td>
</tr>
<tr>
<td>TC</td>
<td>0.40*</td>
<td>.11</td>
<td>0.54*</td>
<td>.20</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.19</td>
<td>.40</td>
<td>.06</td>
<td>.39</td>
</tr>
<tr>
<td>$F(3, 115)$</td>
<td>8.14*</td>
<td>2.55</td>
<td>15.99*</td>
<td>11.66*</td>
</tr>
</tbody>
</table>

Note. $N = 119$. Gender: female = 0 and male = 1. AL = authentic leadership; TC = positive team climate.

* $p < .01$.

H4 predicted that the effect of authentic leadership on follower engagement would be mediated by positive team climate. Scholars have argued that a significant association between independent and dependent variables should not be a prerequisite for testing mediation (Hayes, 2009; MacKinnon, Fairchild, & Fritz, 2007; Shrout & Bolger, 2002). According to Hayes (2009), the absence of a significant relationship between authentic leadership and follower engagement does not eliminate the possibility of mediation effects of positive team climate. The results of mediation analyses indicated that the indirect effect of authentic leadership on follower engagement was significant through positive team climate (indirect effect $= .25$, $SE = .06$, bias-corrected and accelerated 95% CI $= [.16, .40]$). Thus, the data supported H4.

H5 stated that the positive relationship between authentic leadership and positive team climate would be weaker when the coach and player were of different races. Contrary to expectations, the regression results in Table 4 revealed that the interaction term composed of authentic leadership and racial dissimilarity was not a significant predictor of positive team climate, suggesting no significant moderating effect. H5 was not supported. H6 similarly predicted that the relationship between authentic leadership and positive team climate would be weaker when the coach and player were of different genders. The results (see Table 4) revealed a significant moderating effect of gender dissimilarity on positive team climate ($b = .46$, $p < .01$). However, the direction of the moderating effect was positive, rather than the predicted negative direction. Figure 2 illustrates the moderating effect of player–coach gender dissimilarity on positive team climate. The positive relationship between authentic leadership and positive team climate was stronger when the player and coach were of different gender than when they were the same gender. The significant indices of moderated mediation provided support for this moderated mediation (PsyCap: index of moderated mediation $= .19$, boot $SE = .10$, boot 95% CI $= [.03, .42]$; engagement: index of moderated mediation $= .24$, boot $SE = .14$, boot 95% CI $= [.06, .63]$), where the indirect effect of authentic leadership on the two outcome variables through positive team climate is contingent upon gender dissimilarity. The overall findings are summarized graphically in Figure 1.
Table 4. Results of Conditional Process Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>TC</th>
<th>Psychological Capital</th>
<th>Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$b$</td>
<td>$SE$ (HC)</td>
<td>$b$</td>
</tr>
<tr>
<td>Gender</td>
<td>0.24</td>
<td>.14</td>
<td>−0.05</td>
</tr>
<tr>
<td>Team tenure</td>
<td>−0.01</td>
<td>.06</td>
<td>0.01</td>
</tr>
<tr>
<td>RD</td>
<td>0.92</td>
<td>.86</td>
<td>0.16</td>
</tr>
<tr>
<td>GD</td>
<td>−1.81*</td>
<td>.82</td>
<td>1.00</td>
</tr>
<tr>
<td>AL</td>
<td>0.53**</td>
<td>.10</td>
<td>0.21*</td>
</tr>
<tr>
<td>TC</td>
<td></td>
<td></td>
<td>0.41**</td>
</tr>
<tr>
<td>AL × RD</td>
<td>−0.24</td>
<td>.24</td>
<td>−0.06</td>
</tr>
<tr>
<td>AL × GD</td>
<td>0.46*</td>
<td>.20</td>
<td>−0.26</td>
</tr>
</tbody>
</table>

$R^2 = .26$       $R^2 = .42$       $R^2 = .44$

$F(7, 111) = 15.48**$     $F(8, 110) = 8.77**$     $F(8, 110) = 6.65**$

Note. $N = 119$. Gender: female = 0 and male = 1. RD = racial dissimilarity (1 = different coach–player race; 0 = same coach–player race); GD = gender dissimilarity (1 = different gender; 0 = same gender); AL = authentic leadership; TC = positive team climate.

* $p < .05$. ** $p < .01$.

Figure 2. Gender difference as a moderator of the relationship between authentic leadership and positive team climate.

Discussion

The purpose of this research was to test a moderated mediation model, in which positive team climate, as moderated by coach–athlete gender and race similarity, is the key social mechanism by which authentic leaders influence followers’ PsyCap and team engagement. In a sample of men and women’s NCAA Division I basketball players, perceptions of head coaches’ authentic leadership were positively correlated with players’ PsyCap (H1), and this relationship was mediated by positive team climate (H3). Authentic leadership was not found to have an unmediated relationship with players’ engagement (H2), but the data revealed a mediated effect of authentic leadership on players’ engagement through positive team climate (H4). Finally, while exploring the effects of demographic dissimilarity, authentic leadership did not have the predicted larger positive effect on group climate when the coach and player were of the same
race (H5) or gender (H6). However, an unanticipated moderating effect was found for positive team climate when the coach and player were of different gender. Specifically, this study found the effect of authentic leadership on positive team climate to be different for female players who have a male coach compared with a female coach. Female players with male coaches reported a stronger relationship between authentic leadership and positive team climate.

Authentic Leadership and PsyCap

Athletic pursuits in highly competitive environments can be very daunting and stressful. Heightened PsyCap is therefore important as athletes strive to overcome obstacles and succeed on the field or court (Ratten, 2015). As noted previously, the four components of PsyCap—self-efficacy, optimism, hope, and resilience (Youssef & Luthans, 2007)—contribute to a willingness to pursue endeavors and can affect performance outcomes (Larson & Luthans, 2006; Luthans et al., 2007; Walumbwa et al., 2008). Athletes in this study reported fairly high PsyCap levels ($M = 4.02, SD = 0.53$), and consistent with extant research (e.g., Caza et al., 2010; Rego et al., 2012; Story et al., 2013), a significant positive relationship was found between perceptions of coaches’ authentic leadership and players’ PsyCap. Authentic leaders appear to be able to contribute to players’ PsyCap development.

Moreover, similar to Nelson et al. (2014) and Woolley et al. (2011), the results of this study found that positive team climate mediated the relationship between authentic leadership and PsyCap. Hence, it is the team climate, created as a result of authentic behaviors, that is the primary impetus impacting players’ PsyCap qualities, such as sense of optimism about succeeding, self-confidence, and resilience in dealing with stress or difficulties. Authentic leaders contribute to more positive environments, and those positive environments build student-athletes’ psychological resources.

Authentic Leadership and Team Engagement

An athlete’s level of engagement plays a significant role in determining performance outcomes, and authentic leaders have been found to promote increased follower engagement (Banks et al., 2016). Athletes in the study reported a high level of engagement ($M = 4.37, SD = 0.57$), but using the conventional standards of statistical significance (i.e., $\alpha = .05$), support was not found when testing the direct relationship between authentic leadership and team engagement. It is possible that the lack of statistical significance is due to the limited sample size (15 teams with an average number of 7.9 players per team) and the fact that standard errors were adjusted to account for nonindependence in the responses. In contrast, using a one-tailed test to reflect our directional hypothesis (i.e., $\alpha = .10$) would result in statistical significance but would also increase the possibility of a type I error. Future research should therefore examine this relationship to better understand the effect of authentic leadership on player engagement.

The need for further study in this area is highlighted by the support found for H4. The results of mediation analyses indicated that authentic leadership had a significant indirect effect on player engagement through positive team climate. That is, authentic leadership was a significant predictor of team climate, and team climate was a significant predictor of player engagement. It, therefore, seems that, similar to the work-based findings, there is an important relationship in
sport contexts between authentic leadership and player engagement. This fact suggests the value of further investigation.

Role of Gender in Positive Team Climate

This study additionally found moderation effects based on gender. As shown in the results and Figure 2, the slope of the relationship between authentic leadership and positive climate is larger for male coaches than it is for female coaches. Female basketball players’ perceptions of team climate were more strongly influenced by authentic leadership when their coach was male. That is, among female athletes, a male coaches’ authentic leadership had a larger positive effect on team climate (and subsequently PsyCap) than did a female coaches’ authentic leadership. This finding reinforces the importance of considering gender when studying authentic leadership.

Woolley et al. (2011) also found a significant, but slightly different, gender effect in authentic leaders’ ability to develop a positive work climate. The results of their study revealed that male authentic leaders had a slightly less positive effect on climate for female followers compared with male followers. Those researchers advanced three possible explanations of how gender might influence the effects of authentic leadership: (a) that the values between male leaders and female followers might have been incongruent, (b) that “female and male followers may have slightly different needs and expectations with regard to authentic leaders and positive work climates,” or (c) that “the theoretical definition of authentic leadership may be inherently masculine in nature, causing some value incongruence for female followers, regardless of the gender of their leader” (p. 445).

The results of this study help us to consider the findings and speculations of Woolley et al. (2011). In our sample, female coaches’ authentic leadership benefits positive climate, but not as much as male coaches’ authentic leadership does—at least among female athletes. Woolley et al.’s (2011) first possible explanation would suggest that the values between female coaches and female athletes might have been incongruent, or at least less congruent than those between male coaches and female athletes. This option seems the least plausible; it is not obvious why female coaches should have less compatible values with female players in general. Our data, therefore, seem to argue against Woolley et al.’s (2011) first explanation; however, the other two explanations seem relevant and consistent with previous findings about gender.

Woolley et al.’s (2011) second possible explanation was that the gender effect arose from follower expectations. In the case of the current study, this explanation would imply that female athletes’ expectations are better satisfied by male coaches. This possibility seems plausible. As others have noted, basketball and athletic coaching are both gender-typed as masculine (Harrison & Lynch, 2005; Kalin & Waldron, 2015), giving male coaches a perceptual advantage. Consistent with this possibility, researchers have found that some female athletes prefer to be coached by men (Frey, Czech, Kent, & Johnson, 2006; Kalin & Waldron, 2015; Parkhouse & Williams, 1986) and perceive them as more knowledgeable and skilled than female coaches (Frey et al., 2006; Parkhouse & Williams, 1986). Similarly, organizational research has revealed the related finding that female followers may hold female leaders to higher standards than they do male leaders (Hurst, Leberman, & Edwards, 2017). If female followers believe that male
coaches are more effective, and they are more demanding of female coaches, it is not surprising that female athletes perceive female coaches’ leadership as making a smaller contribution.

Woolley et al.’s (2011) third possible explanation is closely related and concerns the fact that authentic leadership, as defined in the literature and the ALQ measure, may be inherently masculine, which would disadvantage female coaches being perceived as effective when enacting those behaviors. Hopkins and O’Neil (2015) noted that authentic leadership is challenging for women for three interrelated reasons: (a) a “think manager—think male” mindset that disadvantages women for displaying agentic behaviors associated with male-defined leadership, (b) organizations are gendered, and (c) followers’ reaction to masculine-defined authentic behaviors. In a masculine-defined sports context, these three factors can place female coaches in a double-bind; a female coach may not be perceived as authentic if she is not behaving according to gender norms and stereotypes (Hopkins & O’Neil, 2015; Liu, Cutcher, & Grant, 2015), but if she does so, she subsequently may have a harder time being accepted for enacting the agentic behaviors that define authentic leadership and contribute to team climate and PsyCap.

The current findings with regard to the moderating role of gender help to refine and advance previous work. On the basis of the results in this study, it seems that Woolley et al.’s (2011) first explanation, of value congruence, may not be as important as the other two, which involve followers’ gender expectations and leaders’ gendered behavior. However, more investigation is required to confirm these findings. It is also noteworthy, although sadly not surprising, that the current literature has a lack of data on female leaders, and particularly female leaders with male followers. Woolley et al. (2011) reported on male and female followers of male leaders; the current study reports on male and female followers of male leaders, and on female followers of female leaders. However, data from male followers of female leaders represent a continuing gap in our knowledge on this topic.

Finally, the data did not support the prediction of moderating effects associated with racial dissimilarity. This finding may reflect a simple lack of data, as only one coach in the sample was not White. As a result, although the sample has reasonable representation from non-White players who have racially dissimilar coaches, there is very little data from White players with non-White coaches. Thus, the current study cannot distinguish between two different conclusions: (a) there is an effect from having a racially dissimilar coach, but there was too little diversity in this sample to detect it or (b) racial similarity does not moderate the effect of authentic leadership. Further investigation is warranted, in conjunction with investigating the intersectional effects of gender and race on authentic leadership outcomes.

Conclusions

As noted in the Introduction, numerous ethical quandaries in amateur and professional sports warrant the inclusion of leadership theories that include ethical components (Burton & Welty Peachey, 2013; DeSensi, 2014). Moreover, sport teams are an attractive context, both empirically and theoretically, for studying authentic leadership as the setting provides an active and important role for the leader (i.e., coach). The testing of the theoretical predictions with this population is very appropriate as sport is an important context for social scientific study by virtue
of it being a microcosm of society (Eitzen, 2001), and one that is particularly useful for the study of management and organizational phenomena (Keidel, 1987; Wolfe et al., 2005).

Overall, our findings indicate the positive impact that leaders’ authentic leadership behaviors have on followers’ PsyCap and engagement, as well as the critical role that climate and gender have in influencing outcomes. This study advances authentic leadership theory by (a) supporting theoretical predictions about the effects of authentic leadership in a sports context, (b) identifying a significant mechanism by which authentic leaders affect followers’ PsyCap and engagement, and (c) highlighting the role of gender and gendered expectations on authentic leadership outcomes.

The theoretical contributions of this study go beyond simply testing authentic leadership theory in a sports context. The masculine and highly interactive nature of many sports teams can provide an informative contrast to more traditional organizational settings. For example, on sports teams, the followers (athletes) have close and frequent interaction with even the most senior leaders (coaches). It could be that findings from contexts in which the leader and followers interact infrequently do not generalize to those in which they do. For example, prior findings in traditional business organizations indicated that work climate partially mediated the effect of authentic leadership on PsyCap (Woolley et al., 2011); whereas, the current findings were of complete mediation. Differences of this sort may reveal important boundary conditions that will increase our understanding of authentic leadership, climate, sport, and traditional organizations. Future research should explore the effect of authentic leadership in other sport (e.g., professional sports) and nonsport contexts, with varying levels of leader–follower interaction, to test the veracity of this argument.

The idea of authentic leadership has caught the attention of many practitioners as well. By investigating the social-psychological mechanisms of authentic leadership, our research study provides guidance for professional training components that should be included in leadership development efforts. PsyCap has been demonstrated to be open to development (Luthans et al., 2006; Luthans, Avey, & Patera, 2008); and given consistent support in management research, should likely be included as a component of sport leadership training, as should the authentic leadership that fosters it, in order to assist leaders and followers in gaining confidence, clarity about their role, self-awareness, and establishing quality relationships (Avolio, 2005; Fusco, O’Riordan, & Palmer, 2015).

At the same time, the findings also highlight the importance of approaching such training in a gender neutral or sensitive fashion so as to avoid undermining the effectiveness of the development process. As Eagly (2005) surmised, it would “be bad advice to exhort women and other outsiders to merely be themselves and express their heartfelt values. Training should explore the legitimacy deficit that goes with the territory for people who gain leadership roles that are nontraditional for members of their group” (p. 470).

Limitations and Future Research

Limitations and areas in need of future research were noted throughout the Discussion; but we also suggest the need for research that explores team performance. Given our small sample size,
we unfortunately could not explore the effects of authentic leadership on team performance. Most authentic leadership studies use subjective measures of performance. These subjective measures are vulnerable to rater errors and other perceptual biases, thus reducing the validity of these performance measures. Investigations of sport teams provide a context for collecting objective performance data (e.g., academic progress rate, team win/loss records) that can easily be linked to leaders’ behaviors. Future research should therefore capitalize on the availability of these data to explore the effect of authentic leadership on objective performance outcomes. In doing so, research could also advance this study’s findings by exploring the effects of followers’ PsyCap not only as an outcome variable, but also as an explanatory variable between authentic leadership and various performance outcomes.

The findings of the current study also suggest that authentic leadership outcomes vary according to the gender of the leader and followers and the gender norms of the environment. In this study, gender differences in team climate were found when a female, compared with a male, coached female players. As noted previously, we were not able to test the effects of authentic leadership when a female coached males. Therefore, an exploration of the effects of authentic leadership in diverse environments (e.g., feminine gender norms, female leaders of male followers) is warranted.

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