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The Effects of Authentic Leadership on Athlete Outcomes: An Experimental Study

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Abstract

Authentic leadership is a form of leadership which could be promising in sport. However, to date, very few studies have examined this leadership style in sport and most of them have been cross-sectional. The purpose of this research was to investigate the effects of authentic leadership on a range of athlete outcomes in an experimental setting. To this end, we conducted an experiment, using a 3 condition (high, low, neutral authentic leadership) between-participant design. A total of 129 participants (M_{age} = 19.36; 76 females) were randomly assigned to a high, low, or neutral authentic leadership condition. We manipulated authentic leadership using scripts depicting an imaginary coach and examined the influence of this manipulation on participants' trust, enjoyment, commitment, cheating, aggression, and anticipated guilt for cheating and aggression. A series of ANOVAs indicated that participants in the high authentic leadership condition reported that they would feel greater trust, be more committed, experience greater enjoyment, and be less likely to be aggressive compared to participants in the low and neutral authentic leadership conditions. There were no effects on cheating or anticipated guilt for cheating or aggression. The findings suggest that authentic leadership could promote trust, enjoyment, and commitment, as well as reduce aggression in sport.

Keywords: coaching, commitment, cheating, aggression, enjoyment

The Effects of Authentic Leadership on Athlete Outcomes: An Experimental Study

Coaches are seen as significant leaders within sports environments, as they may affect athletes' development, and this depends on the type of leadership they exhibit (Turnnidge & Côté, 2019; Vella et al., 2013). Until the late 1940s, leadership was studied via trait and behavioral approaches, which considered the behaviors/traits of the leader in isolation of other factors, whereas more recent approaches suggest that effective leaders focus on their athletes' development and the forming of relationships (Côté & Gilbert, 2009). Authentic leadership is one such form of leadership, which has been shown to be positively related to several desirable athlete outcomes (e.g., Bandura et al., 2019; Bandura & Kavussanu, 2018; Malloy & Kavussanu, 2021b) and will be the focus of this research[1].

Authentic Leadership

Authentic leadership is a genuine form of leadership, whereby leaders' behaviors are consistent with their inner values (Walumbwa et al., 2008). Various models and definitions of authentic leadership have been proposed (e.g., Avolio et al., 2004; Gardner et al., 2005; Ilies et al., 2005). In this study, we used Walumbwa et al.'s (2008) definition, which integrated definitions of authentic leadership proposed in previous models. Walumbwa et al. (2008) defined authentic leadership as "a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development" (p. 94).

[1] In this paper we refer to sport coaches as leaders and examine authentic leadership in coaches as perceived by athletes.

Authentic leadership comprises four components: (a) self-awareness, which refers to how leaders make sense of themselves, including an understanding of their strengths, weaknesses, and inner values (Avolio et al., 2004); (b) relational transparency, which pertains to authentic leaders showing their true self to their followers, for example, telling the hard truth and admitting their mistakes (Walumbwa et al., 2008); (c) balanced processing, which means considering all relevant information, including their followers' perspectives, before making an objective decision; and (d) internalized moral perspective, which refers to exhibiting moral behaviors, in line with one's high moral standards, rather than being influenced by external pressures (Walumbwa et al., 2008). These components are interconnected, forming a coherent model. For example, by being aware of their inner self, authentic leaders are able to show their true self to followers, have open discussions with followers, and act in line with their moral values (Walumbwa et al., 2008). All four core components are required for a leader to be considered authentic, with self-awareness providing the foundation for the other components.[2]

Authentic leadership is highly relevant to sport in several ways. Firstly, authentic leaders are concerned with their followers' development and create trusting relationships, through showing self-awareness and relational transparency (Avolio et al., 2004). In fact, authentic leadership is best understood in terms of the interactions and relationships leaders have with followers (Clifton & Schnurr, 2019). This is relevant to sport as coach-athlete relationships are very important (Vella et al., 2014). Furthermore, authentic leadership includes a moral component which makes it highly applicable to sport given that moral behaviors are highly relevant to sport (Kavussanu, 2019; Kavussanu & Al-Yaaribi, 2021).

[2] Authentic leadership shares similarities with other models, such as transformational leadership: both focus on follower development and acting as a role model (Walumbwa et al., 2008). However, the two forms of leadership are conceptually distinct, as demonstrated by empirical studies which have shown authentic leadership to be distinct from transformational leadership and to explain variance in follower variables that are not explained by transformational leadership (Malloy & Kavussanu, 2021a; Walumbwa et al., 2008).

Additionally, authentic coaches may influence athlete outcomes by creating transparent relationships and positive sports environments (e.g., Bandura & Kavussanu, 2018; Bandura et al., 2019; Malloy & Kavussanu, 2021b). It is to these outcomes we now turn.

Authentic Leadership and Athlete Outcomes

Based on the extant literature (i.e., Avolio et al., 2004; Gardner et al., 2005), authentic leadership could lead to several positive outcomes in followers. It could increase athletes' trust, commitment, enjoyment, and decrease aggression and cheating. Preliminary evidence supporting this claim has been provided in some recent studies discussed in this section.

One key outcome authentic leadership has been proposed to influence is trust, defined as the ability to rely on one's leader and believing they have good intentions for the team (Avolio et al., 2004; Dirks, 2000). Authentic leadership should enhance trusting relationships as it is a genuine form of leadership, whereby leaders show their true self and exhibit their high moral standards (Avolio et al., 2004; Gardner et al., 2005). The positive relationship between authentic leadership shown by coaches (as perceived by their athletes) and trust has been empirically confirmed in several cross-sectional studies (Bandura et al., 2019; Bandura & Kavussanu, 2018; Malloy & Kavussanu, 2021a). The relationship between authentic leadership and trust has also been supported in non-sport contexts (e.g., Clapp-Smith et al., 2009).

Authentic leadership could also enhance sport enjoyment and commitment. Sport enjoyment has been defined as "a positive affective response to the sport experience that reflects generalized feelings such as pleasure, liking and fun", while sport commitment is a "psychological construct representing the desire and resolve to continue sport participation" (Scanlan et al., 1993, p. 6). Both enjoyment and commitment are vital in sport as they can influence athletes' continued sports participation, which tends to decline as age increases (Slater & Tiggemann, 2011). Authentic leaders could promote enjoyment and commitment

through creating trusting relationships and supportive team climates with followers and by spreading their own positive emotions (Avolio et al., 2004; Gardner et al., 2005). Authentic leadership of coaches – as perceived by their athletes - has been positively related to athletes' commitment and enjoyment in cross-sectional research (e.g., Bandura & Kavussanu, 2018; Malloy & Kavussanu, 2021a). One limitation of these studies, as well as the studies examining trust, is that they are cross sectional, thus limiting assertions about causal relationships. Experimental research into whether authentic leadership can promote these outcomes is needed.

Although a few studies have examined authentic leadership in sport in relation to trust, enjoyment, and commitment, morally relevant variables have received limited research attention. Authentic leadership could also promote ethical decision making in followers and suppress cheating and aggression (see Hannah et al., 2011). This can be done by authentic leaders: (a) serving as moral exemplars and instilling high moral standards in their followers; and (b) establishing a norm of what is considered acceptable behavior thereby creating ethical team environments (Cianci et al., 2014; Gardner et al., 2005). Indeed, authentic leadership has been positively related to soldiers' prosocial behavior, defined as ethical behavior common in a military setting, for example by demonstrating responsible behavior and considering soldiers' impact on others (Hannah et al., 2011). Such attributes are incompatible with cheating and aggression as both behaviors have negative consequences for others. Exploring the relationship between authentic leadership and cheating and aggression is vital given the importance coaches play in promoting athletes' moral functioning (Laure & Binsinger, 2007).

By instilling high moral standards in their followers, authentic leaders are also likely to increase the guilt individuals may feel if they behaved transgressively. Guilt is a negative moral emotion that is experienced from wrongdoing and anticipated guilt stops individuals

from acting transgressively (Bandura, 1991; Baumeister et al., 1994). Some support for these proposals has been provided by Cianci et al. (2014), who assigned participants to a high, neutral, or low authentic leadership condition using scripts describing an imaginary supervisor; they also manipulated the presence (or absence) of temptation to cheat for a better job opportunity. Compared to those in the low or neutral authentic leadership conditions, participants in the high authentic leadership condition were less likely to make unethical decisions and more likely to feel guilty when the temptation to cheat was present. In conclusion, authentic leaders may suppress followers' cheating and increase the guilt associated with cheating.

Current Investigation

In summary, authentic leadership has been related to several positive outcomes in sport, such as trust, enjoyment, and commitment (e.g., Bandura et al., 2019; Bandura & Kavussanu, 2018; Malloy & Kavussanu, 2021b). However, this research has been cross-sectional, providing limited evidence of causal relationships. Thus, there is a need for experimental research to test causal relationships. In addition, models of authentic leadership (i.e., Gardner et al., 2005) suggest that authentic leaders could deter followers from engaging in unethical behaviors; however, this has received limited attention in sport. Investigating the effects of authentic leadership on such outcomes is important given issues with continued sport participation and transgressive behaviors (Kavussanu, 2019; Slater & Tiggemann, 2011).

The purpose of this study was to examine the effects of authentic leadership on athletes' trust, enjoyment, commitment, and a range of morally relevant variables. In this article, we collectively refer to aggression, cheating, and guilt as morally relevant variables. In line with previous research (Cianci et al., 2014), we utilized an experimental vignette methodology manipulating authentic leadership using scripts depicting an imaginary coach, who did or did not exhibit the attributes of an authentic leader; for the control group we used

a script that was neutral by not referring to authentic leadership behaviors. We hypothesized that, compared to those in the neutral or low authentic leadership conditions, participants in the high authentic leadership condition would anticipate feeling greater trust and enjoyment and would be more committed to playing for the described coach (Bandura & Kavussanu, 2018); report being less likely to cheat and be aggressive; and anticipate feeling more guilt for cheating and aggression (Cianci et al., 2014). We hypothesized the opposite effects for the low authentic leadership condition (Cianci et al., 2014). Throughout the article we refer to the construct of authentic leadership rather than actual leaders and our outcome variables relate to hypothetical situations.

Method

Design

We used a 3 condition (high, low, neutral authentic leadership) between-participant experimental design.

Participants

A total of 129 (76 females, 58.9%) participants were recruited using purposeful sampling; at the time of data collection, all participants were sport science students at a British University, and all were amateur athletes competing at a regional level[3]. The selection criteria were that participants were healthy, over 18 years old, and actively competing in a sport with a coach and had trained in a team environment to ensure they could relate to the sport-specific scenarios and outcomes used (Aguinis & Bradley, 2014). At the time of data collection, their average age was 19.36 (*SD* = 1.57), they had an average of 9.36 (*SD* = 3.61) years of sport experience, and they participated in 1 of 25 sports (e.g., football, *n* = 34, 26.4%; swimming, *n* = 18, 14.0%; hockey *n* = 11, 8.5%). A-priori power calculation using G*power showed that for a one-way ANOVA with 3 conditions, 99 participants were

[3] Regional level refers to athletes who compete against other teams/athletes in a particular area of the UK.

required to reach 80% power to detect a medium effect size for the global effect, assuming a significance level of .007 (to account for the Bonferroni correction). With 129 participants, we had 80% power to detect a small-to-medium effect size $f^2 = .28$ at $p = .007$.

Experimental Manipulations

We utilized an experimental vignette methodology using scripts describing a coach with certain characteristics. This methodology has several strengths: (a) it can enhance experimental realism, allowing for the systematic manipulation of independent variables in a controlled environment, improving internal and external validity (Aguinis & Bradley, 2014; Evans et al., 2015); (b) it ensures consistency in data gathering and interpretation of experimental stimuli (Evans et al., 2015); (c) it is appropriate when asking participants how they would respond to sensitive topics, such as making ethical decisions, by using hypothetical scenarios to reduce social desirability and observer effects (Aguinis & Bradley, 2014); and (d) it can be used to examine judgment and decision making (Evans et al., 2015).

In line with the experimental vignette methodology, we developed three scripts, one for each experimental condition. We adapted the scripts based on Cianci et al. (2014) to ensure they were relevant to sport by using a carefully constructed description of a coach (Hughes & Huby, 2004) and we pilot tested them to ensure their suitability and relevance before conducting the experiment (Cohen et al., 2005). Pilot testing is important for experimental vignette studies to ensure: (a) that the scripts are realistic enough to enhance the participants' level of immersion thereby enhancing external validity by using real-world situations, which participants are likely to encounter; and (b) that the number and length of vignettes are appropriate (Aguinis & Bradley, 2014).

The pilot testing occurred in three stages. First, 10 athletes commented on how realistic and easy the scripts were to understand using a questionnaire (e.g., "how easy were the scripts to understand" and "is it clear what you have to do"). Based on the results, we

changed the wording of the questions and scripts to reiterate that the questions referred to the coach described in the scripts rather than their real coach, and we described the coach as gender neutral using non-binary pronouns. Second, 12 university athletes were allocated into the three experimental conditions to check whether the authentic leadership manipulations were suitable. This stage revealed that the manipulation was successful (i.e., those in the high authentic leadership condition reported high levels of authentic leadership for the described coach). Finally, a further nine athletes were asked for feedback about the final material, regarding clarity of scripts and their engagement. This stage showed the scripts to be clear and participants reported high engagement with the scripts.

Each of the three scripts used in the experiment were presented in a PowerPoint presentation on a computer, referred to an imaginary coach, and started with the general description: “this coach, like most typical coaches, is mostly concerned with the team meeting targets and rewards athletes for showing personal progress”. In the high authentic leadership condition, the coach was described as manifesting high authentic leadership using key words such as “frequently” before referring to specific authentic leadership behaviors. In the low authentic leadership condition, we used key words such as “rarely” or “does not display” before the description of authentic leadership behaviors. The neutral leadership script included the general description of the coach and a brief history of sports coaching and no references to authentic leadership. The rest of the script was identical in the two conditions. All three scripts have been included in Appendix A. Words which were different between the high and low authentic leadership conditions are shown in italics.

Measures

Manipulation check. To examine the effectiveness of the authentic leadership manipulations, participants’ perceptions of the imaginary coach as an authentic leader, were measured using the Authentic Leadership Questionnaire (ALQ, Walumbwa et al., 2008).

Participants were asked to think about the imaginary coach described in the presentation they had just viewed, rather than their own coach and indicate the degree to which the statements that followed fitted the described coach's coaching style. The ALQ consists of 16 items measuring the four components of authentic leadership: self-awareness was measured with four items (e.g., "shows he/she understands how specific actions impact players"); relational transparency was measured with five items (e.g., "says exactly what he or she means"); internalized moral perspective was measured with four items (e.g., "makes decisions based on his/her core values"); and balanced processing was measured with three items (e.g., "seeks feedback to improve interactions with players"). Responses were made on a 5-point scale with 1 corresponding to "*not at all*" and 5 corresponding to "*frequently if not always*". Using an adult sample of athletes, Bandura et al. (2019) found this scale to be reliable, as shown by a Cronbach alpha of $\alpha = .85$, and with good factorial validity. In this study, Cronbach's alpha of the entire scale was $\alpha = .98$. We used the average of the items for authentic leadership in the analysis. The same procedure was followed for all variables.

Trust. Participants' trust in the imaginary coach was measured using an adapted version of the Trust Questionnaire developed by Dirks (2000). The participants were asked "based on the description of the coach, presented in the script (i.e., PowerPoint presentation), please indicate your level of agreement with the following statements". This scale consists of 9 items, and an example item is "I would trust and respect the coach". Participants chose an appropriate answer from a 7-point scale, with 1 representing "*strongly disagree*" and 7 "*strongly agree*". This scale was found to be reliable as shown by a Cronbach alpha of .96 and with high factorial validity, as demonstrated by a factor analysis conducted on an adult sample (Dirks, 2000). In this study, the Cronbach's alpha for trust was $\alpha = .97$.

Enjoyment and commitment. Enjoyment and commitment were measured using the respective subscales from the Sport commitment model (Scanlan et al., 1993). Participants

were asked to imagine they were coached for the coach described in their PowerPoint presentation and rate their expected levels of enjoyment/commitment. An example item from the enjoyment scale is "would you enjoy playing for this coach" and from the commitment scale "how dedicated would you be to continue playing for this coach". Athletes rated their levels of enjoyment using a 5-point Likert scale with 1 corresponding to "*not at all*" and 5 to "*very much*". Similarly, athletes rated their levels of commitment to play for the imaginary coach on a 5-point Likert scale with 1 corresponding to "*not at all dedicated*" and 5 to "*very dedicated*". These scales have been shown to have very good levels of reliability (for enjoyment: $\alpha = .95$; and for commitment: $\alpha = 88$; Bandura & Kavussanu, 2018). In this study Cronbach's alpha for these subscales were .98 for enjoyment and .93 for commitment.

Cheating and aggression. Cheating and aggression were measured with questions that followed two scenarios adapted from previous research (Kavussanu & Roberts, 2001). The scenarios were pilot tested prior to the experiment by asking participants in the first stage of pilot testing "what would be a realistic hypothetical cheating/aggression scenario from your sport experience?" The first scenario described faking an injury and assessed cheating, and the second scenario described the act of intentionally fouling another player and assessed aggression. The two scenarios are presented in Appendix B. Participants were asked "how likely is it that you would fake an injury/deliberately foul the opponent" and "how tempted would you be to deliberately fake an injury/foul the opponent". Responses were made on a 7-point scale, with 1 relating to "*not at all* (*likely/tempted*)" and 7 "*very* (*likely/tempted)*".

We conducted an exploratory factor analysis, using principle-axis factor extraction, on the likelihood and temptation items pertaining to the cheating and aggression scenarios (i.e., two items from each measure). Through inspection of the scree plots, the four items showed a 2-factor structure with 57.18% of variance explained (VE) by factor 1 and 28.89% VE by factor 2. The pattern matrix revealed that likelihood (Eigenvalue = .96) and temptation

(Eigenvalue = .93) for cheating loaded onto factor 1, while likelihood (Eigenvalue = .93) and temptation (Eigenvalue = .89) for aggression loaded onto factor 2. In addition, the cheating likelihood and temptation items for scenario 1 were highly correlated with each other (r = .66**), as were the aggression likelihood and temptation for scenario 2 (r = .78**). Therefore, the mean of likelihood and temptation for each scenario were used to create the variables cheating and aggression. Although we measured likelihood and temptation to engage in cheating and aggression, in this paper, we use the terms cheating and aggression to refer to these variables, for conciseness. The Cronbach's alphas were .79 and .87 respectively for the cheating and aggression scores.

Anticipated guilt. Following each scenario, participants were asked how guilty they anticipated they would feel if they chose to engage in the cheating and aggression acts described in the scenarios. Responses were made on a 7-point scale, with 1 corresponding to "*not at all guilty*" and 7 "*very guilty*". Therefore, there were two anticipated guilt variables, one for cheating and one for aggression. In line with Cianci et al. (2014), we included guilt as a separate measure, as it is a unique moral emotion (Baumeister et al., 1994).

Procedure

After receiving approval from the university's Ethics committee, the three scripts and the questionnaires were pilot tested. Participants for the main experiment were then recruited via email and university advertisement. Prior to starting the experiment, the study purposes and confidentiality were explained to participants, who were tested in a computer cluster, in groups of 5 to 15. One of the three presentations was randomly loaded onto alternate computers to ensure balance between the conditions. Participants randomly entered the room one by one and sat down at a random computer, which contained the presentation, with an empty space between adjacent participants to ensure each participant focused on their own

condition. The starting screen of the presentations for the three conditions was the same, so participants were not aware in which condition they were going to participate.

Participants were told to assume the role of an athlete who was coached by the coach described in the script presented in the PowerPoint presentation. Once they finished viewing the presentation, which took around 5 minutes to complete, they completed an online questionnaire, which included the measures described above and took around 10-15 minutes to complete. The questionnaire was presented directly after the experimental manipulations, as timing is an important aspect of experimental vignette studies (Hughes & Huby, 2004). The researchers were present during all data collection sessions. At the end of the experiment, the participants were given a copy of a debriefing statement and were thanked for their time.

Data Analysis

Preliminary data analysis was firstly conducted to examine whether there were any missing data and to calculate the Cronbach's alphas for each scale. All analyses were run using the Statistical Program for Social Sciences (SPSS, v. 26). We conducted a series of univariate ANOVAs comparing responses across the 3 conditions to examine: (a) whether the manipulation of authentic leadership was effective, comparing responses to the authentic leadership measure across the 3 conditions; and (b) the effects of the three experimental conditions on the outcomes. The outcomes for which there was a significant difference between conditions were followed up by Tukey HSD post-hoc tests. We used the Bonferroni correction to reduce the Type 1 error from conducting multiple tests, thereby reducing the *p* value from .05 to .007.

Results

Preliminary Analysis

There were no missing data. In addition, the Shapiro-Wilk test and visual inspection of the histograms, Q-Q plots, and boxplots revealed that all scores were normally distributed.

The Cronbach's alphas (presented in the measures section) were considered acceptable to excellent, as suggested by George and Mallery (2003; above .90 is excellent, above .80 is good, and above .70 is acceptable). Descriptive statistics were then computed. Table 1 displays the descriptive statistics as a function of condition.

Manipulation Check

A one-way ANOVA revealed a significant condition effect for authentic leadership, $F(2, 123) = 317.32$, $p < .001$, $\eta_p^2 = .84$. Tukey HSD post-hoc tests showed that participants in the high authentic leadership condition reported significantly higher authentic leadership ($M = 4.34$, $SD = .44$, $p < .001$) than those in the neutral ($M = 3.51$, $SD = .57$, $p < .001$) and low authentic leadership conditions ($M = 1.56$, $SD = .55$, $p < .001$), confirming a successful manipulation. There was a large effect size (ES) for the difference in authentic leadership between the high and neutral conditions (Cohen's $d = 1.63$, 95% CI = 1.20, 2.32), as indicated in Cohen 1992 (small ES = .20, medium ES = .50, large ES = .80). The high authentic leadership condition also had a large difference from the low (Cohen's $d = 5.64$, 95% CI = 4.69, 6.60) condition. The difference between the low and neutral authentic leadership conditions was very large (Cohen's $d = 3.50$, 95% CI = 2.81, 4.52).

Main Analysis

Prior to the ANOVAs, a series of Levene's tests were conducted to test for the assumption of equality of variances. These were found to be nonsignificant for: trust ($F(2,123) = 1.80$, $p = .170$), enjoyment ($F(2,123) = .94$, $p = .40$), commitment ($F(2,123) = .871$, $p = .42$) cheating ($F(2,123) = 2.58$, $p = .80$) guilt for cheating ($F(2,123) = 1.32$, $p = .27$), and guilt for aggression ($F(2,123) = 2.12$, $p = .12$); thus the assumption of homogeneity of variances was met for these variables. However, the Levene's test indicated unequal variances ($F(2,123) = .18$, $p = .00$) for aggression, therefore, we used the Brown-Forsyth F statistic for aggression.

A series of one-way ANOVAs (3 condition: high, low, neutral authentic leadership) using the Bonferroni correction, showed significant main effects for trust, enjoyment, commitment, and aggression. The results of these analyses are presented in Table 1 and Figure 1. The Tukey HSD post-hoc tests revealed that athletes in the high authentic leadership condition expected to experience significantly higher trust, enjoyment, and commitment, if they competed for the imaginary coach, compared to those in the low and neutral authentic leadership conditions. They also reported that they would be less likely to display aggression compared to those in the low and neutral authentic leadership conditions. Authentic leadership did not have a significant effect on cheating or anticipated guilt for cheating. Conversely, athletes in the low authentic leadership condition reported that they expected to experience significantly lower trust, enjoyment, and commitment, if they competed for the imaginary coach, compared to those in the high authentic leadership and neutral conditions. Finally, the post-hoc tests revealed that those in the low authentic leadership condition reported that they would be more likely to display aggression compared to the participants in the high authentic leadership condition.

The effect sizes for the difference in trust (Cohen's d = 5.39, 95% CI = 4.48, 6.30), enjoyment (Cohen's d = 4.36, 95% CI = 3.59, 5.14), and commitment (Cohen's d = 4.72, 95% CI = 3.90, 5.54) between the high and low authentic leadership conditions were very large. The difference in trust (Cohen's d = 1.18, 95% CI = 0.72, 1.63), enjoyment (Cohen's d = .43, 95% CI = 0.10, 0.76), and commitment (Cohen's d = 1.16, 95% CI = 0.70, 1.61) between the high and the neutral conditions were large. Finally, the differences in aggression between the high and low (Cohen's d = .50, 95% CI = 0.40, 0.90) and neutral condition (Cohen's d = .70, 95% CI = 0.27, 1.137) were medium.

Discussion

Research examining authentic leadership in sport has shown that this form of leadership is positively related to trust, enjoyment, and commitment (e.g., Bandura et al., 2019; Bandura & Kavussanu, 2018; Malloy & Kavussanu, 2021b). However, these studies have been cross-sectional and cannot establish causal relationships. Furthermore, authentic leadership has received limited attention in relation to morally relevant variables in sport. In this research, we investigated the effects of authentic leadership on trust, enjoyment, commitment, and morally relevant variables using an experimental vignette methodology commonly used in leadership studies (e.g., Cianci et al., 2014; Goodwin et al., 2000). Our findings refer to the construct of authentic leadership rather than to actual coaches and our participants responded to hypothetical experiences in sport. Furthermore, we measured likelihood and temptation to engage in cheating and aggression. These aspects of our study should be taken into consideration when interpreting our results.

Impact of authentic Leadership on Athlete Outcomes

In line with our hypothesis, participants in the high authentic leadership condition expected to experience higher trust, enjoyment, and commitment compared to participants in the low and neutral conditions. These findings are in line with assertions that trust is expected to result from the genuine nature of authentic leadership (Walumbwa et al., 2008) and that authentic leadership may lead to enjoyment and commitment by emphasizing trusting relationships (Gardner et al., 2005). They are also in line with previous literature showing that authentic leadership was positively correlated with trust in managers among retail employees (Clapp-Smith et al., 2009) and trust in coaches among athletes (Bandura & Kavussanu, 2018). Our research is the first experiment in sport to provide evidence for a causal relationship between authentic leadership and trust, enjoyment, and commitment.

Taken together with previous literature (e.g., Bandura & Kavussanu, 2018; Clapp-Smith et al., 2009; Malloy & Kavussanu, 2021b), our results suggest that when a coach

manifests attributes of an authentic leader, such as telling the hard truth, regularly seeking feedback, and speaking to their athletes honestly, then trust in the coach, enjoyment and commitment to continue competing for this type of coach are likely to be enhanced. In contrast, a coach manifesting attributes of a non-authentic leader, such as rarely telling their athletes the truth, displaying actions inconsistent with their moral beliefs, and not considering everyone's opinions could potentially diminish trust, enjoyment, and commitment, as demonstrated by the significant difference between the conditions. The higher reported enjoyment and commitment in the high authentic leadership condition, compared to the other two conditions, is a significant finding as these variables play an important role in continued sports participation, which is vital given the drop in sports participation with age (Scanlan et al., 1993).

In line with our hypothesis, participants in the high authentic leadership condition reported that they would be less likely to act aggressively, compared to the low and neutral conditions. It seems that when a coach has the attributes of an authentic leader their athletes may be less likely to act aggressively toward other players by committing fouls. This is in line with previous research in non-sport contexts. For example, Cianci et al. (2014) found that participants in a high authentic leadership condition were less likely to make an unethical decision, compared to those in a neutral and low authentic leadership conditions. These findings may be due to authentic leadership containing a moral component (Walumbwa et al., 2008). The impact of authentic leadership on intended aggression is a significant finding as aggression is common in sport (Donahue et al., 2009).

This is the first study to employ an experimental vignette design to investigate the effect of authentic leadership on morally relevant variables in athletes. The use of an experimental vignette design enabled us to manipulate authentic leadership using scripts and randomly assign participants to conditions to make a comparison between the conditions. The

significant difference in aggression between the conditions is an important finding demonstrating that authentic leadership could inhibit aggression in sport. Participants in the low authentic leadership condition reported higher intended aggression suggesting that a non-authentic coach may increase aggression in athletes. The use of an experimental vignette methodology enhances our confidence in our results as by using carefully constructed scenarios which enhanced the experimental realism and control over the independent variable, consequently enhancing the internal and external validity of the research (Aguinis & Bradley, 2014).

Contrary to our hypothesis, participants in the high authentic leadership condition did not differ from those in the other two conditions in cheating, guilt arising from potential cheating, or guilt arising from potential aggression. These null findings are in line with the findings of a laboratory-based study, showing that a brief authentic leadership intervention did not influence cheating (Braun & Hornuf, 2015). It is worth noting that the act of faking an injury described in the cheating scenario is viewed as acceptable in some sports (e.g., soccer, basketball, and American football). Thus, this behavior may not have been perceived as severe as the aggressive act of deliberately fouling an opponent, which could result in physical harm. Due to acceptability of the act of faking an injury and the lower severity of this behavior (compared to aggression) the participants' likelihood to cheat might have been more difficult to be influenced by authentic leadership, as this behavior may not be perceived as going against participants' moral values. This could also explain the null effect on anticipated guilt. However, as this is the first study to examine the effects of authentic leadership on anticipated guilt for cheating and aggression, more research is needed to better understand the role of authentic leadership on this variable.

Although our study has provided support for the importance of being an authentic coach, it is worth noting some criticisms of the authentic leadership construct. First, it has

been suggested that authentic leadership focuses only on the positive side of leadership and positive consequences (Alvesson & Einola, 2019). However, in this paper we investigated both the positive and negative sides of authentic leadership on both desirable and undesirable outcomes. Secondly, it has been suggested that current measurement tools of authentic leadership are weak (e.g., Alvesson & Einola, 2019; Iszatt-White et al., 2021), however numerous studies have provided support for the reliability of the ALQ which has been used extensively (e.g., Cianci et al., 2014; Hannah et al., 2011). Finally, most of these criticisms regarding authentic leadership are within business and organizational settings (e.g., Alvesson & Einola, 2019) and some of these criticisms may not be relevant to sport.

In summary, participants in the high authentic leadership condition reported that they would experience more trust, commitment, and enjoyment, and be less likely to aggress toward their opponent by fouling them, compared to the low and neutral conditions. In contrast, those in the low authentic leadership condition reported lower levels of these variables and higher intended aggression compared to the high and neutral authentic leadership conditions. These results suggest that when a coach manifests attributes of an authentic leader, athletes may experience several desirable outcomes.

Practical Implications

Our experiment showed that participants who viewed a presentation containing a script of the imaginary coach described as a high authentic leader, reported that they would experience more trust, enjoyment, and commitment, and would be less likely to aggress by deliberately fouling and risk injuring an opponent. Our findings are important because coaches are particularly vital in influencing athletes' development (Vella et al., 2013). In order to promote trust, enjoyment, and commitment, coaches should be encouraged to show high authentic leadership by being open with their athletes, include their athletes in decision making, display moral behaviors, seek feedback from their athletes, admit when they make

mistakes, and speak honestly. The results of our study therefore have great value to the sports coaching literature by demonstrating that if a coach learns how to demonstrate attributes of an authentic leader this could have a positive impact on their athletes.

Study Limitations and Future Research Directions

Despite our interesting findings, our study is not without limitations. Firstly, our guilt measures consisted of only one item each. While this is a common approach in scenario-based studies (e.g., Cianci et al., 2014; Ring & Kavussanu, 2018), it does not allow for assessment of internal consistency for this measure. Future research should use a multi-item measure of guilt. Secondly, in line with Cianci et al. (2014), we manipulated authentic leadership with a script of a coach as a natural next step to cross-sectional research. However, this approach may produce different results to an intervention with real coaches as with a real coach the participants would have a relationship with their coach which may enhance follower outcomes (Avolio et al., 2004). Finally, the scripts and scenarios may have been interpreted differently depending on the athletes understanding or sport experience as some of our participants had individual sport as their primary sport. However, as all participants were sports science students, who typically take part in a variety of sports, they would have been able to relate the scenarios to their general sport experiences. Future research should be conducted in a real-world setting, using a field experiment, in which coaches could be taught how to be authentic leaders and the effects of this could be observed on the outcomes, to enhance confidence in the casual relationships in a real-world setting.

Conclusion

Our findings extend the current literature on authentic leadership in sport. They show that authentic leadership could promote the trust, enjoyment, and commitment that athletes would expect to experience if they competed for an authentic coach. In addition, they show that athletes may be less likely to act aggressively. The study has made a significant

contribution to the literature by being the first experiment in sport to demonstrate the effects of authentic leadership on a range of outcomes. Our findings suggest that authentic leadership may be beneficial in coaches creating positive sports environments. This is particularly relevant given the decline in sports participation with age and the prevalence of cheating and aggression in some sports. Thus, promoting authentic leadership in coaches may help to address these issues.

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Table 1

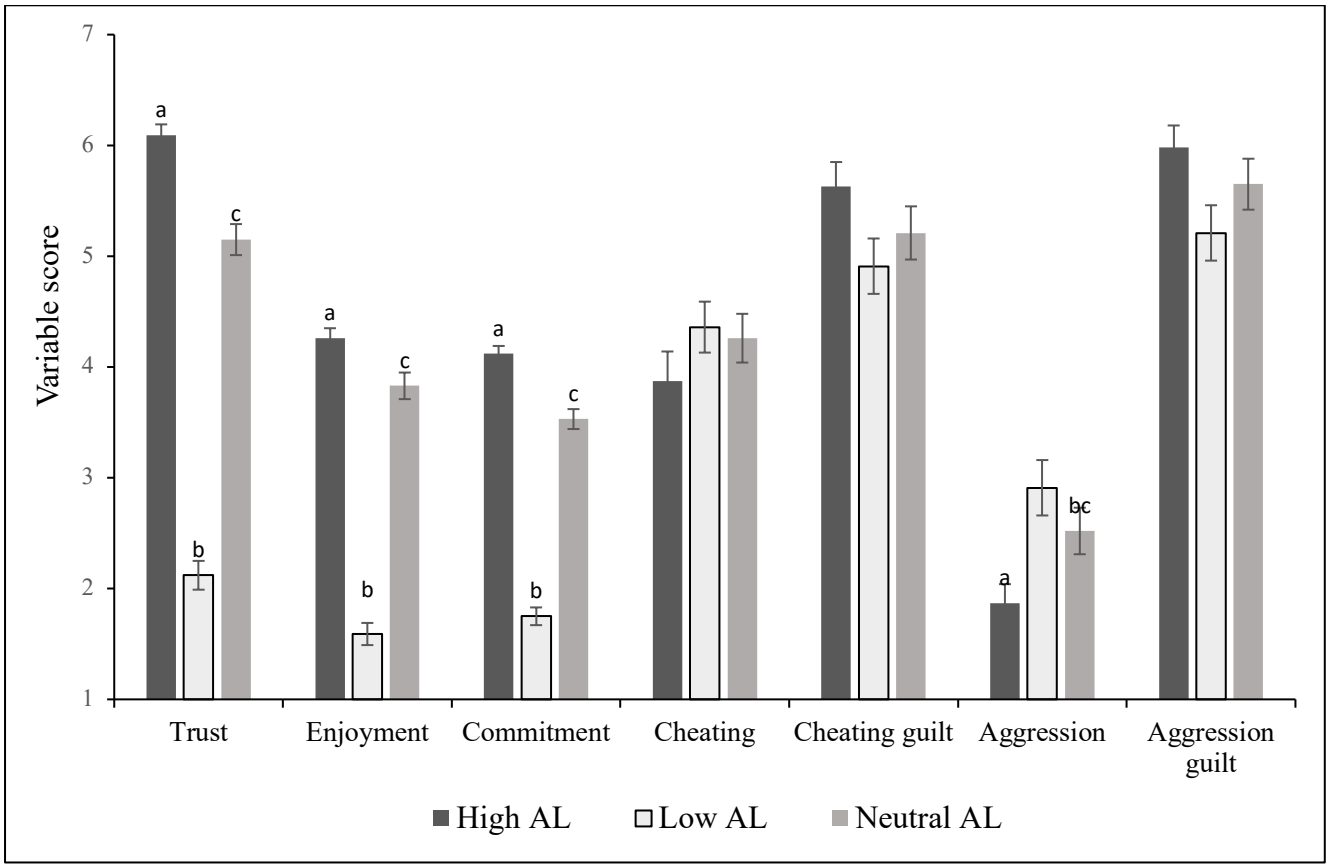
ANOVA Results for All Variables as a Function of Experimental Condition

Variable	Authentic Leadership Condition							
	High		Low		Neutral			
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*(1, 127)	*p*
Trust	6.09_{a}	0.63	2.12_{b}	0.83	5.15_{c}	0.94	281.42	.000*
Enjoyment	4.26_{a}	0.56	1.59_{b}	0.66	3.84_{c}	0.76	201.35	.000*
Commitment	4.12_{a}	0.45	1.75_{b}	0.55	3.52_{c}	0.58	235.37	.000*
Cheating	2.53	1.36	3.20	1.75	3.10	1.58	2.32	.103
Guilt for cheating	5.30	1.67	4.65	1.90	5.16	1.77	2.98	.054
Aggression	1.87_{a}	1.13	2.91_{bc}	1.63	2.52_{bc}	1.45	6.04	.003*
Guilt for aggression	5.97	1.32	5.21	1.64	5.65	1.48	2.89	.049

Note. In each row, means with different subscripts are significantly different from each other; means with the same subscript do not differ significantly from each other.
Bonferroni correction used to adjust for multiple comparisons, new *p* value = .007 and significant results are noted with *.
Possible range of scores: authentic leadership, enjoyment, commitment = 1-5; trust, cheating, guilt for cheating, aggression, guilt for aggression = 1-7.

Figure 1

Outcomes as a Function of Experimental Condition



Note. This figure shows differences among the three experimental conditions on our outcomes.

AL = authentic leadership.

For each variable, means with different subscripts are significantly different from each other; means with the same subscript do not differ significantly from each other.

is significantly different from the neutral condition.

For trust, enjoyment, and commitment, $p = .000$, for aggression, $p = .003$.

Appendix A

Experimental Manipulations

High Authentic Leadership

Your coach, like most typical managers, is mostly concerned with the team meeting targets and rewards athletes for showing personal progress. However, this coach *is also capable* of telling you the hard truth. This coach *regularly* seeks feedback from you, in order to develop a strong interaction between the two of you. Furthermore, they *show they understand* how their specific actions may impact you and the other athletes. This coach *accurately* describes their own capabilities, strengths and weaknesses. They *speak to you honestly* and *admit* when they have made a mistake. They *encourage* everyone on the team to speak their mind and they *frequently* display their own true emotions. They display actions *consistent* with their moral beliefs and as a result they *make decisions based on their core val*ues and ask that you do the same. They *make difficult decisions* based on a high standard of ethical conduct. They *take in*to account everyone's opinions, even if they challenge their position. Finally, they *analyze* all relevant information before coming to a conclusion and *know* when it is time to re-evaluate their position.

Low Authentic Leadership

Your coach, like most typical managers, is mostly concerned with the team meeting targets and rewards athletes for showing personal progress. However, this coach is *rarely* capable of telling you the hard truth. This coach also *rarely* asks for your feedback, in order to improve the interactions between the two of you. They *rarely* show they understand how their specific actions may impact you and the other players. They *inaccurately* describe their own capabilities, strengths and weaknesses. They *do not* speak to you honestly and *do not* admit when they have made a mistake. They *rarely* show they understand how their specific actions may impact you and the other players. They *inaccurately* describe their own

capabilities, strengths and weaknesses. They *do not* speak to you honestly and *do not* admit when they have made a mistake. They *rarely* encourage everyone on the team to speak their mind and they *infrequently* display their own true emotions. They display actions *inconsistent* with their moral beliefs, *do not* make decisions based on their core values and *do not* ask that you do the same. They *do not* make difficult decisions based on a high standard of ethical conduct. They *do not* take into account everyone's opinions, even if they challenge their position. Finally, they *do not* analyze all relevant information before coming to a conclusion and *do not* know when it is time to re-evaluate their position.

Neutral Leadership

Sports coaching in Britain began in the 18th century, within athletics and boxing. Trainers at this time approached their sport as both a science and an art, and great importance was placed on judgment. However, the social divide in Britain during the 18th century was reflected in the relationships between athletes and coaches. At this time, other countries began to use coaches in high schools and universities; consequently, they experienced greater sporting success than Britain. When other countries began experiencing more sporting success, due to their enthusiasm for sports coaching, Britain in the post war era, began to have a more positive attitude towards sports coaching. The rise of the Soviet Union's sporting success in the 1950s, was another key influence in the British government’s support for sports science and coaching. This call for change came via a report from the University of Birmingham called "Britain in the world of sport". By the 1960s science and coaching were interlinked. In the 1980s coaches felt threatened by the emergence of sports scientists, however the two groups now work in partnership in the 21st century. This history has shaped sports coaching today. Consequently, the coach you are asked to imagine you play for is like most typical coaches. They are mostly concerned with the team meeting targets and reward athletes for showing personal progress.

Appendix B

Cheating and Aggression Scenarios

Cheating

You are in the final minute of a match with your team leading by one goal. You and an opposing player are running after the ball. You make contact with the opposing player, though he/she manages to take possession of the ball and heads toward your goal. The only way to stop him/her from attempting a shot on goal is to fake an injury, hoping the officials will temporarily stop play.

Aggression

During a match you are marking an opponent who is getting the better of you. When the referee is not looking you have the opportunity to deliberately foul an opponent and risk injuring your opponent.