AUTHENTIC LEADERSHIP IN SPORT

The Effects of Authentic Leadership on Athletes' Trust, Achievement, and Moral Variables

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Abstract

Objectives

Authentic leadership is a style of leadership which could be promising in sport. However, to date, very little research has examined this leadership style in coaches. The purpose of this research was to investigate the effects of an authentic leadership manipulation on athletes' trust, achievement, and moral outcomes.

Design

Experiment using a 3 x 2 between-participant design.

Methods

129 university athletes ($M_{age} = 19.36$; 76 females) were randomly assigned to either a high, low or neutral authentic leadership condition.

Results

A multivariate analysis of variance indicated that participants in the high authentic leadership condition reported higher trust, commitment, enjoyment, and anticipated guilt for aggression, and lower aggression compared to participants in the low authentic leadership and neutral conditions.

Conclusions

The findings suggest that high authentic leadership could be key to creating more positive environments in sport.

Keywords: Coaching, commitment, cheating, aggression, enjoyment

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The Effects of Authentic Leadership on Athletes' Trust, Achievement, and Moral Variables

Coaches are seen as significant agents within sports environments, as they may affect athletes' psychosocial development (Vella et al., 2013). Whether coaches positively or negatively influence their athletes' development depends on the type of leadership they exhibit (Turnnide & Cote, 2016). Therefore, investigating effective forms of leadership in sport, which are likely to positively influence athletes, is essential. In the last decade, the view of what makes an effective leader has changed from authoritarian leaders to ones who focus on their athletes' development and the formation of relationships with their athletes (Cote & Gilbert, 2009; Vella et al., 2013). Authentic leadership is one such form of leadership and will be the focus of this research.

Authentic Leadership

Authentic leadership involves a genuine leadership style, whereby leaders' behaviors are consistent with their inner values (Walumbwa et al., 2008). It centres around the notions of creating open and trusting relationships with followers, showing concern for their development, involving them in decision making, and acting in an ethical manner (Gardner et al., 2005). Whilst various definitions of authentic leadership have been proposed, in this study, we focus on Walumbwa et al.'s (2008) definition of this construct, in line with previous research in sport (e.g., Bandura et al., 2019; Bandura & Kavussanu, 2018). They define 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). Authentic leadership thus comprises four components: self-awareness, relational transparency, balanced processing, and internalized moral perspective.

Self-awareness refers to how leaders make sense of themselves in terms of being aware of their own strengths, weaknesses, and inner values, and acting in line with these values (Avolio et al., 2004; Walumbwa et al., 2008). One cannot be considered authentic unless they are fully aware of and able to accept themselves (Ilies et al., 2005). Relational transparency pertains to authentic leaders showing their true authentic self to their followers, through being open (Kernis, 2003; Walumbwa et al., 2008). This can include telling the hard truth, admitting when they have made a mistake and displaying emotions in line with their feelings. Balanced processing means taking into account all relevant information, including followers' perspective before making an objective decision (Walumbwa et al., 2008). Authentic leaders demonstrate balanced processing by seeking feedback from their followers in order to better understand their perspective, even if their followers' views oppose their own (Wong & Lashinger, 2013). Finally, internalized moral perspective refers to showing internalized self-regulation through exhibiting moral behaviors, in line with the authentic leaders' high moral standards, rather than being influenced by external pressures. Authentic leaders also express where they stand on controversial issues and ask their followers to also act in line with their inner values (Avolio & Gardner, 2005; Ilies et al., 2005).

Authentic Leadership, Trust, and Achievement Outcomes

According to Avolio et al.'s. (2004) model of authentic leadership, and previous research conducted in sport (e.g., Bandura & Kavussanu, 2018), authentic leaders are expected to promote trust amongst followers. Trust is expected to play an important role in the authentic leadership model, due to the focus authentic leaders place on developing relationships with followers. Trust is defined as the ability to rely on one's leader and believing they have good intentions for the team (Dirks, 2000). Authentic leaders are expected to promote trust because they are considered genuine and credible, inclining athletes to identify with their leader thus creating a trusting relationship (Avolio et al., 2004).

Furthermore, through showing relational transparency, authentic leaders show their true self and high moral standards, which results in followers trusting their leader (Gardner et al., 2005; Ilies et al., 2005). The relationship between authentic leadership and trust has been documented in studies of retail clothing employees (Clapp-Smith et al., 2009). Two studies of team sport athletes found that coaches' authentic leadership was positively related to athletes' reported trust (Bandura et al., 2019; Bandura & Kavussanu, 2018).

According to Avolio et al.'s (2008) model, in addition to trust, authentic leaders are also expected to promote greater enjoyment and commitment in their followers. Enjoyment is defined as "a positive affective response to the sport experience that reflects generalised feelings such as pleasure, liking and fun" (Scanlan et al., 1993, p. 6), while sport commitment is defined as 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' achievement and continued sports participation (Scanlan et al., 1993), which tends to decline as age increases (Gratton et al., 2011; Slater & Tiggemann, 2011). Therefore, research into whether authentic leadership can promote these outcomes is important. For the purpose of conciseness, enjoyment and commitment are referred to collectively as achievement variables.

Authentic leaders are expected to promote enjoyment and commitment in their followers through several mechanisms; (a) creating trusting relationships with followers (Gardner et al., 2005); (b) spreading their own positive emotions to their followers in a process known as emotional contagion; and (c) creating supportive team climates, which make followers feel more secure, in a process known as social contagion (Ilies et al., 2005). A few studies have provided empirical support for the relationship between authentic leadership and followers' enjoyment and commitment. For example, authentic leadership was positively correlated with nurses' well-being (Nelson et al., 2014) and positively related to

1 enjoyment and commitment in health care, manufacturing, and service employees (Leroy et
2 al., 2012; Peus et al., 2012). In the sport context, authentic leadership has also been positively
3 associated with athletes' enjoyment and commitment (Bandura & Kavussanu, 2018).
4 However, this research was cross sectional, and cannot establish a causal relationship
5 between authentic leadership and athlete outcomes. The present study will therefore examine
6 the effects of authentic leadership on trust, enjoyment and commitment in an experimental
7 setting.

8 **Authentic Leadership and Moral Outcomes**

9 Walumbwa's et al. (2018) states that in addition to the developmental focus of
10 authentic leadership, which is expected to result in trusting relationships and followers,
11 authentic leadership also contains a moral dimension. Specifically, authentic leaders have a
12 highly developed moral component, which is expected to promote ethical decisions and
13 prosocial behaviors in their followers (Hannah et al., 2011). They have high moral standards
14 and act in line with these moral standards (Gardner et al., 2005; Hannah et al., 2011), thus
15 they serve as moral exemplars to their followers and are likely to create ethical environments,
16 by establishing a norm of what is considered acceptable behavior, thereby promoting
17 prosocial and discouraging antisocial behaviors (Cianci et al., 2014; Hannah et al., 2011). In
18 this study, we will examine authentic leadership in relation to antisocial sport behavior,
19 which is defined as "voluntary behavior intended to harm or disadvantage another" and
20 includes behaviors such as cheating and aggression (Kavussanu & Boardley, 2009, p. 99).

21 Authentic leaders may also influence the level of anticipated guilt followers may feel
22 if they chose to engage in unethical behavior. Guilt is a moral emotion that is experienced
23 from wrongdoing (Baumeister et al., 1994). It is a negative emotion which stops individuals
24 from acting transgressively, so that they can avoid experiencing this emotion (Bandura,
25 1991). As authentic leaders are likely to promote higher moral standards and behaviors in

athletes, it is likely that their athletes would experience greater guilt from engaging in antisocial behaviors, as they see these behaviours as wrong according to their moral standards. There are potential sex differences in anticipated guilt and moral behaviors, with males being more likely to show aggression and experience less guilt than females for acts such as bullying and violence (Haddock & Jimerson, 2017). Therefore, it is important that research examines whether authentic leadership has different effects on guilt and moral behaviors of male and female athletes.

The effects of authentic leadership on followers' moral behavior and anticipated guilt have been examined in previous research in military and business contexts. In a cross-sectional study, authentic leadership was positively and indirectly related to soldiers' prosocial behavior, through moral courage. Prosocial behavior was operationally defined as ethical behavior that is common in a military setting such as demonstrating responsible behavior, considering soldiers' impact on others and putting the good of the group ahead of their own self-interest (Hannah et al., 2011).

In an experimental study of employees, Cianci et al. (2014) assigned participants to a high, neutral, or low authentic leadership condition, with temptation either present or absent. This was done using scripts depicting a supervisor as demonstrating behaviors indicative of a high or low authentic leader, or no mention of authentic leadership. Participants then received a second script which did or did not expose them to the temptation of a better job opportunity and to have their reputation be unaffected by their poor performance. An interesting interaction between authentic leadership and temptation emerged: Specifically, participants in the high authentic leadership condition were less likely to make unethical decisions in the face of temptation, compared to those in the low or neutral conditions, and were more likely to feel guilty. No effects were found when temptation was absent. Therefore, this study

suggest that authentic leaders may prevent their followers from making unethical decisions and feel more anticipated guilt about making unethical decisions.

Current Investigation

In summary, research has shown that authentic leadership in coaches has been positively associated with trust, enjoyment, and commitment in athletes (e.g., Bandura et al., 2019; Bandura & Kavussanu, 2018). However, previous research on authentic leadership in sport has been cross-sectional. Thus, there is a need for experimental research examining the effects of an authentic leadership manipulation on trust, enjoyment, and commitment of athletes. In addition, despite evidence that authentic leadership could influence moral variables (e.g., Cianci et al., 2014; Hannah et al., 2011), no study has examined the effects of authentic leadership on moral outcomes in sport.

In this research, we aimed to fill this gap in the literature. Our purpose was to examine the effects of an authentic leadership manipulation on athletes' trust, achievement (i.e., enjoyment, commitment), and moral (i.e., cheating, cheating anticipated guilt, aggression, aggression anticipated guilt) outcomes. To this end, we conducted an experiment assigning participants to high, low, or neutral authentic leadership. We hypothesized that, compared to participants in the low authentic leadership or neutral leadership conditions, participants in the high authentic leadership condition, would report: higher trust, enjoyment, and commitment (Bandura & Kavussanu, 2018); less cheating and aggression; and more anticipated guilt for both cheating and aggression (Cianci et al., 2014).

Method

Design

The design of the experiment was a 3 Authentic Leadership Condition (high, low, neutral) x 2 Sex (male, female) between-participant design.

Participants

A total of 129 (76 females, 58.9%) participants took part in the experiment, all of which were students at a British University. A-priori power calculation using G*power showed that for a 3 x 2 between-participant MANOVA, with seven outcomes, in order to detect a small effect size for the difference between conditions (.20), 105 participants were required to reach 80% power, assuming a significance level of .05. The selection criteria for the study were that participants were healthy, over 18 years old and actively competing in sport. At the time of data collection, the participants' average age was 19.36 ($SD = 1.57$), they had an average of 9.36 ($SD = 3.61$) years of experience taking part in their respective sport, and they had played 1 of 25 sports. Most participants took part in football ($n = 34$, 26.4%), athletics ($n = 20$, 16.3%), swimming ($n = 18$, 14.0%), or hockey ($n = 11$, 8.5%).

Experimental Manipulations

Three scripts were created, one for each experimental condition. The high and low authentic leadership conditions pertained to the four components of authentic leadership (Walumbwa et al., 2008). They were based on Cianci et al. (2014) and adapted to be relevant to sport. As such, the scripts were pilot tested and modified to ensure their suitability and relevance for use in athletes before conducting the actual experiment (Cohen et al., 2005). Specifically, the aim of pilot testing was to develop the material, test the experiment under realistic conditions, and to gather information about how another person would interpret the questions put forward during the experiment (Drever, 1995). The pilot testing occurred in three stages. In the first stage, 10 athletes from team sports were asked to comment about how realistic the cheating and aggression scenarios were, whether the modified scripts were easy to understand, and whether the questionnaire items were appropriate. Next, we used the material developed during the first stage of pilot testing and allocated 12 university athletes into the three experimental conditions to check whether the authentic leadership manipulations would be suitable for the main experiment. The final stage of the pilot testing

involved obtaining feedback from a further nine university sport athletes about the final material, regarding the clarity and level of engagement with the material.

From the pilot testing, the specific cheating and aggression scenarios were selected, and the scripts finalized. Each script, presented in a PowerPoint presentation on individual computers, 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 script stated that the coach manifested behaviors typically displayed by authentic leaders. In the low authentic leadership condition, the script stated that the coach rarely or did not display these behaviors. The neutral leadership script included the general description of the coach and a brief history of sports coaching, with no references to any authentic leadership behaviors. In addition, the coach described in the script was gender neutral. The three scripts are presented in Appendix A as are the cheating and aggression scenarios. In Appendix A, the words which were different between the high and low authentic leadership conditions are presented in italics. The rest of the script was identical in the two conditions. Participants were asked to read the scripts depicting an imaginary coach and then read the scenarios and respond to the questionnaire, as if they were an athlete for the coach described in the script.

Measures

Manipulation check. To assess the effectiveness of the authentic leadership manipulation, 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 complete the measure in relation to the description of the imaginary coach in the presentation they had just read, rather than referring to their own coach. The ALQ consists of 16 items with responses made on a 5-point scale with 1 corresponding to “not at all” and 5 corresponding to “frequently if not always.” Self-

1 awareness was measured with four items (e.g., “shows he/she understands how specific
2 actions impact on players”). Relational transparency was measured with five items (e.g.,
3 “says exactly what he or she means”). Internalized moral perspective was measured by four
4 items (e.g., “makes decisions based on his/her core values”). Balanced processing was
5 measured with three items (e.g., “seeks feedback to improve interactions with players”).
6 Walumbwa et al (2008) found this scale to be reliable as demonstrated by Cronbach alphas of
7 .79 (self-awareness), .72 (relational transparency), .73 (internalised moral perspective), and
8 .76 (balanced processing).

9 **Trust.** Participants’ trust in the imaginary coach was measured using an adapted
10 version of the Trust Questionnaire developed by Dirks (2000). The instructions were adapted,
11 so that the participants were asked “Based on the description of the coach, presented in the
12 script (PowerPoint presentation), please indicate your level of agreement with the following
13 statements”. This scale consists of 9 items, and an example item is “I would trust and respect
14 the coach”. Participants chose an appropriate answer from a 7-point scale, with 1 representing
15 “strongly disagree” and 7 “strongly agree”. Dirks (2000) found this scale to be reliable, as
16 shown by a Cronbach’s alpha of .96.

17 **Enjoyment and commitment.** Enjoyment and commitment were measured using the
18 respective subscales from the Sport commitment model developed by Scanlan et al. (1993).
19 Participants were asked to imagine they played for the coach described in their PowerPoint
20 presentation and rate their enjoyment/commitment towards the coach by selecting the
21 appropriate number. An example item from the enjoyment scale is “would you enjoy playing
22 for this coach” and from the commitment subscale “how dedicated would you be to continue
23 playing for this coach”. Athletes rated their levels of enjoyment using a 5-point Likert scale
24 with 1 corresponding to “not at all” and 5 “very much”. Similarly, athletes rated their levels
25 of commitment to play for the imaginary coach on a 5-point Likert scale with 1

corresponding to “not at all dedicated” and five “very dedicated”. These scales have been shown to have good reliability as demonstrated by Cronbach alphas of .90 for enjoyment and .92 for commitment (Weiss et al., 2010).

Cheating and aggression. Cheating and aggression were assessed by questions that followed two scenarios adapted from previous research (Kavussanu & Roberts, 2001). 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. Participants were asked how “likely” and “tempted” they would be to engage in each of the described behaviors. Responses were made on a 7-point scale, with 1 corresponding to “not at all (likely/tempted)” and 7 “very (likely/tempted)”.

We conducted a factor analysis, using principle-axis factor extraction, on the likelihood and temptation items pertaining to the cheating and aggression scenarios (i.e., the four items). 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, whilst 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 averaged 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 the sake of conciseness. The Cronbach alpha for the computed cheating score was .79, while the alpha score for the computed aggression score was .87.

Anticipated Guilt. Participants were also asked how guilty they anticipated they would feel if they chose to engage in the cheating and aggression acts described in the two 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 guilt variables, one for cheating and one for the aggression. We chose to include guilt as a separate measure as it is a unique moral emotion (Baumeister et al., 1994) and as such was used as a separate variable in Cianci et al. (2014).

Procedure

After receiving approval from the university ethical committee, the three scripts and questionnaire items were pilot tested. Participants for the main experiment were then recruited via email and university advertisement. The study purposes and confidentiality were explained to respondents and informed consent was obtained, prior to starting the experiment. Participants were randomly allocated to either a high or low authentic, or neutral leadership condition and were tested in a computer cluster, with groups of 5 to 15. Each participant was assigned to one computer, with an empty space between adjacent participants to ensure each participant focused on their own condition. Participants were told to assume the role of an athlete and then read the script describing a coach presented in the PowerPoint presentation. The presentation took around 5 minutes to complete. Next, participants completed an online questionnaire that included the measures described above. The questionnaire took around 10-15 minutes to complete. The researchers were present during all data collection sessions to answer any questions. At the end of the experiment the participants were provided with a copy of a debriefing statement and thanked for their time.

Data Analysis

Preliminary data analysis was conducted to examine whether there were any missing data and to calculate the Cronbach alphas for the different scales. Descriptive statistics were

then computed. This Preliminary data analysis and the main analysis was run using the Statistical Program for Social Sciences (SPSS, v. 26). For the main analysis, we firstly conducted an ANOVA to examine whether the manipulation of authentic leadership was effective, comparing responses to the authentic leadership measure across the 3 conditions. For the main analysis, we used a 3 Condition (high, low, neutral authentic leadership) x 2 Sex (male, female) MANOVA to examine the effects of the authentic leadership manipulation on the outcome variables.

Results

Alpha Coefficients, Descriptive Statistics, and Zero-Order Correlations

There was no missing data. In addition, the Shapiro-Wilk test and visual inspection of the histograms, Q-Q plots, and boxplots revealed the data to be normally distributed. The Cronbach alpha scores of authentic leadership (.98), trust (.97), enjoyment (.98) and commitment (.93) were considered excellent, as suggested by George and Mallery (2003). Table 1 displays the descriptive statistics. Participants reported moderate levels of authentic leadership, trust, enjoyment, and commitment, low levels of cheating and aggression and high levels of anticipated guilt for both cheating and aggression.

Manipulation Check

The manipulation check, via the one-way ANOVA, revealed a significant effect of the different conditions on authentic leadership, $F(2, 123) = 317.32, p < .001, \eta_p^2 = .84$. Tukey HSD (post-hoc) tests revealed that athletes in the high authentic condition rated the imaginary coach as high in authentic leadership and reported significantly higher authentic leadership ($M = 4.34, SD = .08$) than the neutral ($M = 3.51, SD = .80$) and low authentic leadership ($M = 1.56, SD = .80$) conditions, thus providing evidence that the manipulation was successful.

Main Data Analysis

A 3 Condition (high, low, neutral authentic leadership) x 2 Sex (male, female)

MANOVA was used to examine the effects of Condition and Sex on the athlete outcomes.

The MANOVA showed a significant multivariate Condition main effect (Wilks Lambda = .104, $F(16, 232) = 30.45, p < .05$) and a significant Sex main effect (Wilks Lambda = 0.81, $F(8, 116) = 3.52, p < .05$), but no significant interaction between Condition and Sex. Thus, the effects of authentic leadership did not vary as a function of participants' sex. The results of follow up univariate ANOVAs are presented in Table 1.

As can be seen in Table 1, there was a significant condition main effect on trust, enjoyment, commitment, aggression, and anticipated guilt for acting aggressively. Tukey HSD (post-hoc) tests revealed that athletes in the high authentic leadership condition reported significantly higher trust, enjoyment and commitment, compared to the low authentic leadership and neutral condition. Furthermore, athletes in the high authentic condition reported less aggression and higher guilt, compared to the low authentic leadership and neutral condition. There was a Sex effect, with males reporting higher cheating ($M = 3.03, SD = .22$) than females ($M = 2.88, SD = .18$), and lower anticipated guilt for cheating ($M = 5.10, SD = .20$) compared to females ($M = 6.00, SD = .16$). Similarly, males ($M = 2.73, SD = .19$) scored more highly than females ($M = 2.23, SD = .16$) for aggression and had less anticipated guilt for aggression ($M = 5.08, SD = .16$) compared to females ($M = 5.98, SD = .16$).

Figure 1 displays the mean of each variable as a function of the 3 conditions. It can be seen that participants in the high authentic leadership condition indicated high levels of trust, enjoyment, commitment, anticipated guilt for aggression, and low aggression. The Condition main effect was not found to have a significant effect on cheating or anticipated guilt of cheating. Participants in the low authentic leadership condition indicated low levels of these variables, apart from aggression in which they scored highly. Finally, participants in the neutral condition indicated moderate levels of the study variables. The mean difference in

effect sizes of the authentic leadership variable between the high authentic leadership and the low condition was significant (Cohen's $d = -5.59$, $n = 84$, 95% CI = -6.54, -4.64) and demonstrated a medium effect size (Cohen, 1988). The mean differences in the authentic leadership effect sizes between the high authentic leadership and the neutral condition were also significant (Cohen's $d = -1.66$, $n = 84$, 95% CI = -2.15, -1.16), although this effect size is considered small. Finally, the differences in the authentic leadership effect sizes between the low authentic leadership and neutral condition were also significant and considered a medium effect size (Cohen's $d = 3.50$, $n = 84$, 95% CI = 2.82, -4.18).

Discussion

To date, a limited amount of research has been carried out on authentic leadership in sport (e.g., Bandura et al., 2019; Bandura & Kavussanu, 2018; Houchin, 2011). However, this research has been cross sectional. The purpose of this research was to examine whether an authentic leadership manipulation influences trust and a range of achievement and moral outcomes in athletes. To this end, we conducted an experiment, in which participants were presented with the description of a high, low, or neutral authentic leader and examined the impact of this on their reported trust, enjoyment, commitment, cheating, aggression, and anticipated guilt for cheating and aggression. At the outset, it should be acknowledged that even though manipulating leadership with a script (e.g., Cianci et al., 2014) is a common method in research for examining the effects of leadership on outcomes, our findings refer to the concept of authentic leadership rather than to actual authentic leaders. Similarly, our athletes responded with hypothetical rather than actual experiences in sport.

Authentic Leadership, Trust, and Achievement Variables

In line with our hypothesis, participants who read the script depicting an imaginary coach who was described as having high authentic leadership reported higher trust, enjoyment, and commitment compared to the low and neutral conditions. Our findings are in

line with previous literature. For example, authentic leadership was positively correlated with trust in managers in a sample of retail employees (Clapp-Smith et al., 2009) and positively related to trust in athletes (Bandura & Kavussanu, 2018). Taken together with past research, our results suggest that high authentic leadership may result in athletes reporting higher levels of trust, enjoyment, and commitment compared to low authentic leadership.

This is the first experiment to provide evidence to support the view that high authentic leadership is positively related to trust, enjoyment and commitment in athletes. It has been suggested that trust results from authentic leaders being genuine (Walumbwa et al., 2008). Moreover, authentic leaders are likely to promote higher enjoyment and commitment in followers by creating supportive relationships and team climates which help followers to feel more secure and content (Gardner et al., 2005; Ilies et al., 2005). Although we did not examine these mechanisms in our experiment, we did find support for the relationship between high authentic leadership and trust, enjoyment, and commitment. We also found that athletes in the low authentic leadership condition reported lower trust, enjoyment and commitment compared to both the high and neutral conditions. This provides initial evidence to suggest that low levels of authentic leadership, such as not telling athletes the truth, displaying actions consistent with their moral beliefs, considering everyone's opinions or accurately describing their own strengths and weaknesses could potentially diminish athletes' trust, enjoyment and commitment.

Authentic Leadership and Moral Outcomes

Participants in the high authentic leadership condition reported lower likelihood to display aggression in a hypothetical situation, whereas those in the low authentic leadership condition reported higher likelihood to be aggressive compared to the high authentic leadership and neutral condition. Our findings are in line with the literature which suggests authentic leadership could lower antisocial behaviors in athletes (Hannah et al., 2014). Whilst

we did not directly measure the mechanisms behind this relationship, the literature suggests authentic leadership may do this by showing relational transparency, being open, and displaying balanced processing when faced with moral dilemma. Specifically, authentic leadership contains a moral component which suggests authentic leaders regularly display actions consistent with their moral beliefs, make decisions based on their high moral standards and take into account everyone's opinions, even if they challenge their own position.

As hypothesized participants in the high authentic leadership condition reported that they would feel more anticipated guilt if they were to act aggressively, than the low authentic leadership condition. This finding is in line with the literature which suggests that authentic leadership may promote high moral standards in followers which results in greater guilt for choosing to engage in antisocial behaviors, as these behaviours go against their moral values (Bandura, 1991; Hannah et al., 2014). Our results are also in line with previous research (Cianci et al., 2014), who found that participants in a high authentic leadership condition were less likely to make an unethical decision, and more likely to feel guilty about making an unethical decision, compared to those in a low authentic leadership condition, in the face of temptation. Taken together with previous literature, our findings suggest that high authentic leadership may reduce likelihood of aggression and intensify guilt in athletes, with respect to engaging in aggression. The inhibiting effects of authentic leadership on guilt is an important finding, because anticipated guilt has been inversely and consistently linked to antisocial behavior in sport (e.g., Kavussanu, 2019; Kavussanu et al., 2015). Thus, a leadership style which intensifies feelings of guilt for acting aggressively is likely to discourage aggression in sport.

Contrary to our hypothesis, participants in the high authentic leadership condition did not differ from those in the other two conditions in cheating or anticipated guilt from

cheating. The null findings in our experiment are in line with the findings of a laboratory-based study, which found that a short authentic leadership intervention did not have an effect on the extent to which participants cheated (Braun & Hornuf, 2015). In addition, the cheating scenario related to faking an injury – a behavior that is common and viewed as acceptable in some sports (e.g., soccer). Furthermore, faking an injury does not necessarily have directly harmful consequences to another person. Whereas the aggression scenario referred to intentionally injuring an opponent, which does have direct consequences for the other player, in terms of causing physical harm. Therefore, this behavior may not have been perceived as severe as the aggression scenario. Consequently, the participants likelihood to engage in cheating could have possibly been unaffected by the authentic leadership manipulation as it may not have been against the athletes' moral values and therefore their scores for cheating or the anticipated guilt from cheating would not have been effected.

Practical Implications

Our experiment showed that a manipulation of authentic leadership had an effect on athletes' trust, achievement, and moral outcomes. Our findings are important because coaches are particularly vital in influencing athletes' development and moral behaviors. High authentic leadership was related to higher trust, enjoyment, and commitment of athletes, and discouraged aggression. Therefore, coaches could be encouraged to regularly demonstrate high authentic leadership as presented in Appendix A, such as telling the hard truth, seeking feedback from their athletes, speaking to their athletes honestly, making decisions based on their core values and analysing all relevant information before coming to a conclusion.

Limitations and Future Research Directions

Despite some interesting findings revealed in this experiment, our research has some limitations. First, like all experiments conducted in a lab setting, this research has high internal but low external validity. We manipulated authentic leadership with a script of a

coach in line with Cianci et al. (2014). Future research should be conducted in a real world setting, in which athletes of a high, low, and neutral leader (as indicated by screening questionnaires) are compared against one another on the outcome variables to enhance confidence in the casual relationships between the variables measured in this study. Second, our anticipated guilt measures, consisted of only one item each, thus it was not possible to assess their internal consistency. Future research should employ multi-item measures of guilt. Finally, future research should develop and administer an authentic leadership intervention in coaches and examine its effects on the outcomes investigated in this research.

Conclusion

Our findings extend the current literature on authentic leadership in sport. They show that high authentic leadership can promote higher reported trust, enjoyment, and commitment in athletes as well as reduce their likelihood of aggression and increase the guilt they would anticipate feeling if they were to act aggressively. The study has made a significant contribution to the literature by extending previous cross-sectional studies in sport, by being the first experiment to demonstrate the effects of authentic leadership on these variables. The results suggest it may be beneficial for coaches to display more authentic leadership within their coaching practice, to help create more positive and moral sports environments.

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1 Endnote

2 We would like to thank the undergraduate students who helped with recruitment and data
3 collection and to the ESRC for supporting the study.

Table 1*ANOVA Results for Each Variable as a Function of Experimental Condition (n = 129)*

Variable	Experimental Condition						$F(9, 118)$	η_p^2
	High AL		Low AL		Neutral			
	M	SD	M	SD	M	SD		
Trust	6.09 ^a	.63	2.12 ^a	.83	5.15 ^a	.94	280.41**	.82
Enjoyment	4.26 ^a	.56	1.59 ^a	.66	3.84 ^a	.76	201.39**	.76
Commitment	4.12 ^a	.45	1.75 ^a	.55	3.52 ^a	.58	233.24**	.79
Cheating	2.53	1.36	3.20	1.75	3.10	1.58	2.31	.04
Anticipated Guilt - Cheating	5.30	1.67	4.65	1.90	5.16	1.77	2.84	.04
Aggression	1.87 ^a	1.13	2.91 ^{ab}	1.63	2.52 ^{ab}	1.45	6.12*	.09
Anticipated Guilt -Aggression	5.97 ^a	1.32	5.21 ^{ab}	1.64	5.65 ^{ab}	1.48	2.93*	.05

Note. AL = Authentic Leadership. In each row, means with the same superscript differ significantly from each other.

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

Figure 1

Mean of each Variable as a Function of Experimental Condition

Note. This figure shows differences among the three experimental conditions on our outcomes displayed in the Y axis.

** = high AL is significantly different from both low AL and neutral conditions; * = low AL is significantly different from the neutral condition.

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 values* and ask that you do the same. They *make difficult decisions* based on a high standard of ethical conduct. *They take into account* everyone's opinions, even if they challenge their position. Finally, *they analyse* 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* analyse 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.

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.