Scarred for the rest of my career? Career-long effects of abusive leadership on professional athlete aggression and task performance
Abstract

Based on the contention that leadership has sustained effects on followers even after the leader-follower relationship has ended, we investigated the career-long effects of abusive coach leadership on athlete aggression and task performance. Abusive leadership scores were derived from ratings by two independent raters’ evaluations of coaches’ biographies, and athlete aggression and task performance data were derived from objective sources. Data were obtained from players (N = 693) and coaches (N = 57) involved in the National Basketball Association (NBA) between 2000/2001 and 2005/2006 seasons. Controlling for tenure, salary, team winning percentage and absence due to injuries, multilevel modeling showed that exposure to abusive leadership influenced both the trajectory of psychological aggression and task performance over players’ careers. These findings suggest that the effects of abusive leadership extend far longer than currently acknowledged, thus extending our understanding of the nature and effects of abusive leadership.

Keywords: abusive supervision, leadership, aggression, task performance
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There is widespread agreement that one of the primary functions of leaders is shaping the attitudes and behaviors of their followers. The challenge for leadership, however, is not limited to what is achieved in the present moment while the leader-follower relationship is intact. Instead, an alternative challenge is the long-term and enduring effects of leadership. To some, the most significant test of leadership is what is achieved after the current leader-follower relationship has ended (Barling, 2014).

Despite this, leadership research within the fields of both organizational and sport psychology generally only examine how leadership behaviors affect current followers while the leader-follower relationship is intact, neglecting the possibility that current leaders affect follower performance and behaviors well into the future. This is evident in the way in which leadership research is typically conducted, as virtually all leadership research is either cross-sectional in nature or examines short-term effects; even studies focusing on five-year outcomes of positive leadership remain rare (for an exceptions, see Bartone, Snook, Forsythe, Lewis, & Bullis, 2007; Keller, 2006). This is despite the fact that when asked to identify prior experiences that influenced current work attitudes and behaviors, many people spontaneously mention earlier exposure to good or bad leaders (Barling, 2014). One study that did focus on the effects of prior leadership showed that the benefits of prior experience with an exceptional leader may be most pronounced when faced with suboptimal current leadership (Dragoni, Park, Soltis & Forte-Trammell, 2014).

Against this backdrop is the broad and voluminous evidence showing that early experiences shape the long-term trajectories of people’s values, expectations and behaviors
across most life domains. For example, we know that experiencing abuse or neglect (Currie & Widom, 2010), or parental divorce (Mustonen, Huurre, Haukkala, Kiviruusu, & Aro, 2011) affects children decades later, as does exposure to a high or low quality teacher early in one’s school years (Chetty, Friedman & Rockoff, 2013). Evidence for career long effects of work-related variables have also been found. For example, that commitment to the union at the start of one’s career predicts participation in the union 10 years later (Fullagar, Gallagher, Clark & Carroll, 2004). Similarly, in the context of professional sports, transformational leadership (broadly conceived as behaviours that transcend short-term goals and leader-follower exchanges and focuses on higher order intrinsic needs; Bass & Riggio, 2006), as displayed by Chief Executive Officers of Major League Baseball organizations, predicted positive change over a three-year average in team winning percentages (Resick, Whitman, Weingarden, & Hiller, 2009).

With regard to work experiences, destructive leadership touches most people at some point in their working lives, either directly or vicariously. Not surprisingly therefore, researchers have long been interested in different forms of destructive leadership (e.g., petty tyranny, unethical leadership, laissez-faire) and their consequences. Most recently, attention has focused intensively on abusive supervision. Tepper, Henle, Lambert, Giacalone, and Duffy (2008, p. 721) defined abusive supervision as “sustained forms of nonphysical hostility perpetrated by managers against their subordinates.” Pointing to the abundance of research on abusive supervision, Martinko, Harvey, Brees, and Mackey (2013) identified 82 studies that were conducted between 2000 and 2012. Research on abusive supervision continues (e.g., Hannah et al., 2013; Mawritz, Dust & Resick, 2014), and it is clear that abusive leadership is now recognized as an important form of destructive leadership that, while having a low base-rate has meaningful and widespread negative effects on followers and their organizations (Zellars, Tepper, & Duffy, 2002). In spite of
the pervasive study of abusive leadership within organizational settings, very little research within the field of sport psychology has focused on the ‘dark’ sides of leadership in general, and abusive leadership in particular.

Why is exposure to abusive leadership so important? Reviewing the evidence on the effects of close relationships, Baumeister, Bratslavsky, Finenauer and Vohs (2001) concluded that exposure to negative relationships had consistently stronger—and worse—effects than similar exposure to positive relationships. This is critical: The limited data available suggest that the effects of positive (in this case, transformational) leadership could be identified five years later (Keller, 2006). Thus, the goal of our research is to extend understanding of the effects of abusive leadership by investigating the career-long effects of exposure to abusive leadership across two different outcomes, namely athlete aggression and task performance, in the context of professional sports, namely the National Basketball Associate (NBA).

Conceptual Background and Hypotheses

Coaches’ Abusive Leadership and Athlete Psychological Aggression

One consistent consequence of abusive leadership is different forms of deviance targeted at one’s own supervisor, peers or the organization (e.g., Tepper, 2007), or one’s family relationships (Carlson, Ferguson, Perrewe, & Whitten, 2011). The question we now ask is why exposure to abusive leadership might affect athlete aggression across their career, and in particular psychological aggression. Drawing upon Schat and Kelloway (2005, p. 191), we define psychological aggression as “behaviors by an individual or individuals within or outside an organization that [are] intended to … psychologically harm a worker or workers and occurs in a work-related context”, and psychological aggression would include behaviors such as
ridiculing, verbal threats, that are intended to degrade and attack an individual’s self-worth by making them feel guilty, upset, or inadequate (Lawrence, Yoon, Langer, & Ro, 2009).

To date, research has pointed to the role of individual factors (e.g., employees’ self-control; Tepper, Duffy & Shaw, 2001), relational factors (e.g., power distance between supervisor and subordinate; Lian, Ferris, & Brown, 2012) and attributional processes (e.g., Burton, Taylor & Barber, 2014) to explain why abusive leadership might be associated with deviant employee behaviors. We suggest that social learning theory (Bandura, 1986) helps to explain (a) under what conditions abusive leadership will result in some form of employee aggression, (b) the nature of any aggressive response, and (c) why career-long effects might exist.

Social Learning Theory

Social learning theory is frequently invoked as a broad explanation with regard to why people behave aggressively following personal or vicarious exposure to abusive leadership (e.g., Kiewitz, et al., 2012; Lian et al., 2012; Mawritz, Mayer, Hoobler, Wayne & Marinova, 2012). Social learning theory emerged in the 1960-70’s, largely as a result of the theorizing of Albert Bandura (1986) and it continues to exert a strong influence (Geen, 2001). Social learning theory suggests that people acquire behaviors through direct experience or by observing others and more specifically to the current study, aggression is learnt the same way as any other complex form of social behavior (Anderson & Bushman, 2002). Social learning consists of the acquisition of responses through observation, and the maintenance of behaviors through reinforcement (Bandura, 1986; Geen, 2001). A closer reading of the original research on which social learning theory was based, however, points to previously-ignored but critical nuances on which our hypotheses rest.
Specifically, social learning theory suggests that individuals who operate in environments where others are rewarded for aggressive behavior are more likely to engage in similar acts themselves (Bandura, 1986). For example, in the initial research on which social learning theory was based, all the children who viewed an aggressive model learned the specific behaviors modeled, but not all necessarily re-enacted the observed behavior (Bandura, Ross & Ross, 1961). This early research went further, and explained the conditions under which the newly-learned behaviors would be performed (or not). To determine whether to perform an aggressive behavior, children need to observe the consequences of aggression for the actors. Therefore in terms of social learning, whether aggressive behaviors are acted out or not will depend on the outcomes that are associated with the observed behavior. Support for this effect in the workplace context derives from Lian et al.’s (2012) recent study. They showed that the relationship between an abusive supervisor and individuals’ interpersonally deviant behaviours, was mediated by the belief that abusive supervision was likely to be rewarded.

As previously stated, the social learning theory of aggression explains the acquisition, performance and maintenance of aggressive behavior through observational learning. Specifically, aggressive responses are acquired through observation and later reproduced through the social reinforcement of the aggressive behavior (Geen, 2001). This is critical for understanding the potential consequences of abusive leadership in the context in which our research is conducted, namely professional basketball coaches and players in the USA (i.e., the NBA). Firing of coaches in the NBA is certainly not uncommon, but when they do occur, the reasons are similar to those involved in the firing of senior executives in traditional organizations, namely correcting poor selection decisions, coaches losing the respect of their team or significant players, organizational politics (Martin, 2013), and coaches not achieving
performance targets. In contrast, any kind of formal discipline or firing of coaches for abusive leadership is rare. This is important in the current context, as players might justifiably assume that at the very least, coaches’ abusive leadership goes unpunished, if not rewarded.

**Abusive Coach Leadership and Career-long Athlete Aggression**

As already noted, most of the research on abusive supervision and leadership to date has been based on cross-sectional research designs (Martinko et al., 2013; Tepper, 2007) as a result of which it is unclear whether any effects are maintained over time. This is an important omission: The potential harm to individuals, peers, employing organizations and even family members would increase if any of the concurrent negative effects of exposure to abusive leadership already identified are maintained over time. Social learning theory might help explain why we should expect long-term negative effects of exposure to abusive leadership. Using Bandura et al.’s (1961, 1963) methodology, Hicks (1965) varied whether the children in his study viewed an adult or a peer model acting aggressively. Exposure to both peer and adult male models was associated with immediate imitation of the modeled aggression. However, Hicks (1965) extended the study, and also showed that only earlier exposure to the adult male model (presumably, an authority figure of high status) predicted the enactment of aggression six months later; in contrast, earlier exposure to a peer model had no long-term effects (Hicks, 1965).

We predict that exposure to abusive leadership, as characterized in the abusive supervision scale (e.g., “ridicules me”, “blames me”, “is rude to me”; Tepper, 2000) will be associated with athletes’ psychological aggression longitudinally because the leaders in our study (coaches within the context of professional basketball) hold great power over their players. Coaches decide who the starting players are and how much playing time they are allocated, all of which have implications. For example with respect to future salary and job security. Coaches
also decide whether to publicly reprimand or humiliate specific players, or whether to retain or trade players. When players are traded, all of these prior factors will influence the status of their future work team and colleagues, their salary and job security, indicating the power coaches have over players. An example of the importance and power of coaches in the NBA is demonstrated by a study of the team outcomes of the tenure (life cycles) of both coaches and owners of NBA teams (Giambatista, 2004): Only the coaches’ life cycles, not the owners, influenced team performance. Therefore, the power the coach holds over consequences of critical importance for the players likely exacerbates the strength and length of any modeling effects. Therefore, we suggest the abusive leadership will be related to athlete psychological aggression. Specifically, we hypothesized that abusive leadership by coaches will be associated with an upward shift in professional basketball players’ psychological aggression across their careers (Hypothesis 1).

In addition to examining whether abusive leadership is associated with an upward shift in players’ aggression over the course of their respective careers, we were also interested in the extent to which abusive leadership results in changes in the trajectories (i.e., changes in slope) in player aggression over time. Although it is conceivable that the effects of abusive leadership might wane over time it is also possible that abusive leadership may set off a chain of events in which athlete aggression that results from abusive leadership is directed at teammates or opposition team members, who in turn retaliate towards the individual, resulting in increasing aggression over time. Although there was no a priori rationale to expect abusive leadership will result in consistent, increasing, or decreasing levels of player psychological aggression over time, we examined changes in the trajectories of the relations between coach abusive leadership and player aggression over time, as an exploratory research question.

**Abusive Coach Leadership and Career-Long Athlete Task Performance**
Overwhelmingly, the research conducted on abusive leadership in organizational settings has focused on its outcomes, and one line of research suggests consistently that abusive leadership is negatively associated with individual performance. Most of the research has investigated contextual performance; whether directly or indirectly, abusive leadership is negatively related to subordinates’ organizational citizenship behaviors and positively associated with different counterproductive behaviors (e.g., Aryee, Chen, Sun, & Debrah, 2007; Xu, Huang, Lam, & Miao, 2012; Zellars et al., 2002). Much less research has focused on the possible relationship between abusive leadership and aspects of task performance. In the research that has been conducted, experiencing abusive supervision has been shown to be negatively associated with supervisory ratings of task performance (Harris, Kacmar, & Zivnuska, 2007; Nandkeolyar, Shaffer, Li., Ekkirala & Bagger, 2014; Xu et al., 2012), and in some cases, with the results of formal performance appraisals (Harris et al., 2007). As important as these findings are, they are all based on cross-sectional data; their significance would be magnified if exposure to abusive leadership exerted longer-term effects on employees’ task performance.

In addition, consistent with the definition of abusive supervision (Tepper, 2000), these studies all make use of subordinates’ perceptions of abusive supervision, leaving open questions about the construct validity of abusive leadership, and the possibility that any conclusions drawn might be threatened by common method variance when using self-reports of subordinates’ ratings of both abusive leadership and their own performance. The validity of ratings of subordinates’ performance might be further contaminated in those instances in which they are obtained from supervisors (e.g., Harris et al., 2007; Nandkeolyar et al., 2014; Neves, 2014; Xu et al., 2012) who subject the same employees to abusive leadership. As a result, we investigated the
effects of abusive leadership on follower (i.e., athlete) task performance using multiple sources of data and different methods of data collection, with no recourse to self-reported data.

To understand why the negative effects of abusive leadership on task performance may persist long after the abusive supervisory relationship ends we again turn to Bandura’s social learning theory. Across a range of contexts, leaders have the potential to empower followers, model effective and ethical behaviors, provide feedback and encouragement others and convey optimism and a belief that employees can meet high expectations (i.e., all through the process of social learning). Indeed, in sport settings, displays of transformational leadership have been found to be related to improvements in athlete motivation and performance (Charbonneau, Barling, & Kelloway, 2001). In the same way, we suggest that displays of abusive leadership may hinder athletes’ efforts towards task performance. Within the organizational psychology literature, some of the behaviors inherent in abusive supervision (Tepper, 2000) are focused on employee performance (e.g., “tells me my thoughts or feelings are stupid”, “tells me I am incompetent”) and would directly target followers’ notions of competence. Support for this emerges from Duffy, Ganster and Pagon’s (2002) study on police officers, which showed that supervisory behaviors identical (e.g., put you down, gave you the silent treatment, spoke bad about you in front of others) or similar (e.g., belittled you, undermined your efforts, talked down to you) to items embedded in Tepper’s (2000) abusive supervision scale, negatively affected followers’ beliefs in their own capabilities. Thus, we hypothesized that abusive coach leadership will be associated with a downward shift in players’ task performance across their careers (Hypothesis 2).

As with our research question concerning the relations between coach leadership and player aggression, we were also interested in whether coach abusive leadership was associated
with changes in trajectories over time (i.e., change in slope) in the relations between abusive coach leadership and athlete task performance. That is, while one would expect athletes to display a downward shift in task performance over time (as per Hypothesis 2), we were also interested in whether the strength of this effect increased or decreased over time, or remained constant. In the absence of any a priori rationale to expect changes in the slope of the relations between abusive leadership and task performance (i.e., whether those effects waned over time or even spiralled upwards), we examined changes in the trajectories between coach leadership and task performance over time as an exploratory research question.

**Study Context**

We examined the relationship between abusive coach leadership and athlete psychological aggression and task performance across time within the context of the NBA in the United States. Professional sports such as the NBA provide an ideal context for conducting leadership research for several reasons. First, the NBA is governed by standard rules of competition which are rigorously, consistently and publicly enforced. This enables considerable statistical control (Wolfe et al., 2005), increasing confidence in the reliability and validity of any findings. Second, extensive, objective data on the variables of interest, such as individual salary, injuries, player and team performance, are widely available (Pfeffer & Davis-Blake, 1986).

The professional sports context provides opportunities to expand understanding of different aspects of leadership because often-private leadership behaviors are displayed publicly and there are data on individual and team effects that are readily available across multiple years. This offers researchers the opportunity to account for the effects of leadership across the players’ careers. There is previous research that has explored the prospective effects of positive
leadership (e.g., Charbonneau et al., 2001; Resick et al., 2009; Zacharatos, Barling, & Kelloway, 2000), but not negative.

While obtaining reliable and valid indices of aggression and task performance continue to frustrate researchers in traditional workplace organizations, this is not the case within the context of the NBA. In professional basketball, a range of aggressive behaviors are clearly differentiated and punished with increasing severity. Because determinations of whether any of the fouls have occurred are made by highly trained objective observers (i.e., referees), the limitations inherent in relying on self-report data typical of studies of workplace aggression in traditional organizations (Barling, Dupré, & Kelloway, 2009) are avoided in this context.

In addition, performance criteria are clearly defined and publicly available, and more difficult judgements and decisions are often made with input from multiple raters (i.e., multiple referees using video replays). Add to this the fact that an index of “performance efficiency” exists (Berri, Schmidt, & Brook, 2006), which combines separate positive behaviors (e.g., points scored, rebounds, assists, steals) while controlling for negative performance indicators (e.g., free throws missed). This index is accepted throughout the industry, and used in salary negotiations, media reports, and coaching decisions, reflecting its ecological validity.

Method

Sample

We conducted this study using historiometric analyses, a research methodology in which historical, biographical accounts of an individual are collected from archival sources and used to make assessments of the extent to which various attributes characterize that individual. Several previous studies of executive-level business and political leaders have used historiometric
methods (e.g., Deluga, 1997; House, Spangler, & Woycke, 1991; Peterson, Smith, Martorana, & Owens, 2003; Resick et al., 2009; Simonton, 1986).

The current study focused on 57 coaches, who held positions in the NBA for at least one full season across six consecutive seasons between 2000/2001 and 2005/2006. The average tenure of these coaches was 2.39 years. Individuals were only counted once if they coached more than one NBA team (i.e., for the team with which they had the longest tenure).

Two graduate students conducted a comprehensive search for biographical information about each NBA coach from which biographical accounts were created for each of the 57 coaches from the archival sources. The archival sources used were newspaper articles accessed through online databases (e.g., Factiva, ProQuest), articles from general sporting magazines (e.g., Sports Illustrated) and basketball periodicals (e.g. Slam) from the years 2000/2001 to 2005/2006. We identified as many news articles as possible that contained information about the coaches’ leadership behaviors. In addition, we made it a priority to include stories that featured direct comments from the coach and specific descriptions of behaviors and events. Using at least two or more independent sources, 5-10 single-spaced page (approximately 3500 words) coaching biographies were created for each of the 57 coaches.

Once the biographies were created they were reviewed by the first and second authors to independently evaluate the comprehensiveness and usefulness of the information in each biography. This process ensured that all coach biographies contained sufficient information to enable an assessment of coach abusive supervision. In addition, all biographies were reviewed for consistency in terms of length and content, and to ensure the biographies contained non-redundant information.
Player data were acquired from STATS, a leading source of statistical information and analysis of sports leagues in the US. The sample included all 30 NBA teams. Following past research (e.g., Christie & Barling, 2010), we enhanced the reliability of our measures by including only those who played in at least 20 of the 82 games in a given season, which provided 2,280 individual level data points from 693 players across the six years. The average age of the players was 26.88 years (SD = 4.47). The average tenure of players across the 6 years of the study (2000-06) was 5.84 years (SD = 3.97). Players were matched with the coach they had in each year, across the 6 years.

**Procedure**

Leadership ratings of all the coach biographies were conducted independently by two female upper-level psychology undergraduate students. Assessors were provided 4 months (one semester) to complete the ratings of the 57 coach biographies. Before undergoing the training discussed below, the two student raters indicated their familiarity with each of the 57 NBA coaches on a 3-point scale (3 = very familiar; 1 = not at all familiar) to ensure that assessments were not biased due to previous knowledge or preferences. The familiarity for each assessor for all coaches was reported as 1 (i.e., no familiarity with any of the coaches).

Both raters received eight hours of training in the form of lectures, discussions, assigned readings and practice ratings. The training was delivered by the first and second authors, and was designed to provide the assessors with (a) general knowledge regarding leadership and specifically abusive supervision; (b) assessment-specific knowledge regarding the methodology, biographical materials, and measures; (c) skills in conducting proper assessments; (d) and rater biases such as halo effects, horn effects, and leniency bias. Upon completion of the lecture part of the training, the raters provided a verbal summary of their understanding of abusive
supervision. Thereafter, the two assessors completed four practice biographies of college basketball coaches (that were assembled in the same manner as the NBA coach biographies) in which they were asked to read through each biographical sketch entirely to obtain a thorough understanding of each coach’s leadership behaviors before making any assessment. The first two practice biographies were conducted with the research team and then were discussed as a group to ensure the raters understood the best method for conducting the assessment. The next two practice biographies were completed individually by the raters. After completing the ratings of these biographies individually, the research team again met and had a group discussion, where the raters discussed their ratings for each item.

Raters then completed the 57 coach biographies; they followed the same procedure used to assess the practice biographies, in which they read the biography entirely before making any formal assessment. Midway through this process, a group meeting was held to review the rating process. Assessors had the opportunity to modify their ratings but were not required to do so.

**Measures**

**Abusive Leadership.** Abusive leadership was measured using Tepper’s (2000) 15-item abusive supervision scale, with all items rated on a 5-point Likert response scale (“not at all” to “frequently”). Deviating from Tepper (2000), however, the items did not measure subordinate perceptions, but instead was the two independent raters’ assessments of the coach biographies. Therefore the measure of abusive leadership reflected third party ratings of abusive behaviors reported within the coach biographies. Inter-rater reliability (IRR) was significant ($r (56) = .51, p < .01$), and the average scores across the two raters provided a reliable measure of abusive supervision ($\alpha = .78$).
**Player Performance.** Player task performance was measured based on the formula used by Berri et al. (2006) for player efficiency, and calculated as:

\[
PP = [POINTS_i + REB_i + ASST_i + BLK_i + STL_i - (FGA_i - FGM_i) - (FTA_i - FTM_i) - TURN_i],
\]

where \(PP_i\) refers to player observation \(i\)'s performance, \(POINTS_i\) refers to player observation \(i\)'s total points scored, \(REB_i\) refers to number of rebounds made by player observation \(i\), \(ASST_i\) refers to number of assists made by player observation \(i\), \(BLK_i\) refers to number of blocked shots made by player observation \(i\), \(STL_i\) refers to number of steals made by player observation \(i\), \(FGA_i\) refers to number of field goal attempts made by player observation \(i\), \(FGM_i\) refers to number of field goals made by player observation \(i\), \(FTA_i\) refers to player observation \(i\)'s total free throw attempts, \(FTM_i\) refers to player observation \(i\)'s total free throws made, and \(TURN_i\) refers to total turnovers made by player observation \(i\) (Christie & Barling, 2010). The rating for each player is then adjusted to a per-minute basis so that, for example, substitutes can be compared with starters in playing time debates. Player efficiency scores are widely used within the NBA for decisions related to player recruitment, pay and retention.

**Player Psychological Aggression.** Technical fouls served as a proxy for aggression. In basketball, a technical foul is any infraction of the rules penalized as a foul which does not involve physical contact during the course of play between opposing players on the court, or is a foul by a non-player. The most common technical foul is for unsportsmanlike conduct. Technical fouls are assessed for serious infractions of the rules (e.g., unsportsmanlike conduct, taunting or threatening to hit an opponent, disrespect toward an official, or use of profanity) which do not involve physical contact, and they are only assessed for behaviors that do not directly contribute
to the goal of the player. Technical fouls are also assessed when there is intent to make physical contact but no contact occurs and although technical fouls also include non-aggressive behaviors (e.g., intentionally delaying the game), technical fouls still serve as an appropriate proxy for aggression for several reasons. First, the prototypical technical foul in basketball involves unsportsmanlike conduct, which includes incidents such as yelling at or insulting an official over a call (Berkowitz, 1990). In a study of aggression in basketball, “negative verbalizations to officials” were the most common form of aggressive behavior and were judged by expert players, officials, and the researchers to signal aggressive intent (Kirker, Tenenbaum, & Mattson, 2000). Second, when technical fouls are assessed for non-aggressive reasons, such as delay of game, the rules may call for a warning rather than a technical foul on the first infraction, making it more likely technical fouls reflect aggression (Zitek & Jordan, 2011).

**Results**

Prior to aggregating the ratings of all of the coaches across the two raters, we calculated interrater reliability using $ICC_1$, the proportion of total variance in a measure attributable to group membership and the extent to which raters are interchangeable, and $ICC_2$, the reliability of the group means within a sample (Bliese, 2000; Klein & Kozlowski, 2000). The average $ICC_1$ was .69, and the average $ICC_2$ was .82. The interrater reliability analyses provide sufficient evidence to support the aggregation of ratings across the raters.

**Analytic Strategy**

We cannot assume that the observations in our data are independent for two reasons. First, players are nested within teams and thus may be more similar to their teammates than to players on different teams. Second, our data pools six NBA seasons, meaning that individual players have data spanning their multiple years in professional basketball. Thus, before testing
our hypotheses, we determined the extent to which these dependencies in our data require special consideration by calculating interclass correlations (ICCs) for each of our dependent variables.

The results show that team membership explains very little of the variation in player performance (ICC = .001) and workplace aggression: technical fouls (ICC = .01). However, a players’ behaviors are correlated across seasons in the league; i.e., players tend to show some consistency in their performance and workplace aggression over their careers (performance ICC = .70; technical fouls = .56). Even though there was some consistency in player outcomes, there was enough variation within players’ between seasons, permitting tests of within-player change.

As a result, we used multilevel linear modelling (MLM; using the software MPlus Version 6) for our hypothesis tests to account for the hierarchical nature of the data derived from players (level-2) being nested across seasons (level-1) in the league. Using MLM for repeated measures allows the computation of basic regression, while simultaneously accounting for the clustered nature of the data (players across multiple time periods), thus permitting changes within individuals to be modelled over multiple periods of time. The results of the analysis show the impact of one variable on another within one subject across time, summarized across all subjects.

We first ensured the data were appropriate for multilevel analyses. The assumptions of MLM for repeated measures are that the random components are assumed to have a normal distribution with a mean of zero and therefore all predictor variables were mean centered before analyses. The second assumption is that the dependent variable is assumed to be normally distributed and therefore technical fouls was log transformed before analyses due to its positive skew. The null models for each of the dependent variables are shown in Model 1 of Tables 2 and 3.
We followed Singer and Willett’s (2003) methods for modelling change over time, with time represented directly as a variable. In our study, tenure in the league (i.e., the variable “linear slope” in Tables 2 and 3), centered on a player’s rookie year, is the time variable. As recommended, we first considered the functional form of change in our dependent variables across players’ tenures in the league and found significant linear and quadratic trends (the variable “quadratic slope” represents a player’s tenure in the league squared). These results show that performance and aggressive behaviors generally rise early in players’ careers and then fall more rapidly as tenure increases, and all hypothesis tests accounted for this underlying form of players’ average career trajectories by testing how abusive leadership influences this baseline pattern.

Our analyses were conducted by fitting three models. First, Model 2 (Tables 2 and 3) tests whether abusive leadership influences, on average, the elevation of players’ outcome trajectories over their careers (e.g., does having an abusive coach shift a player’s performance and aggression trajectory upwards or downwards?). To do so, Model 2 extends Model 1 by including the time variables, and the time-varying predictors, namely, the control and abusive leadership variables which were grand mean centered (Hypotheses 1 and 2).

To test our exploratory hypotheses, we then examined Models 3 and 4, which tested whether, on average, abusive leadership influences the slopes of players’ career trajectories (e.g., does having an abusive coach lead to progressively worse performance across one’s career?) in terms of their linear (i.e., the instantaneous rate of change) and quadratic (i.e., the curvature of the slope; Singer & Willett, 2003) components. Model 3 adds an interaction between abusive leadership and the linear slope to Model 2, while Model 4 builds on Model 3 by adding an interaction between abusive leadership and the quadratic slope.
Finally, causal inferences are enhanced if plausible rival hypotheses can be discounted. Thus, performance measures were adjusted in all analyses for salary and team winning percentage because of the possibility that being on a winning or losing team may influence individual performance (Bloom, 1999). Absences were controlled in all analyses as illnesses and injuries may impede performance (Berri & Krautmann, 2006), and abusive leadership is associated with work withdrawal intentions (Tepper et al., 2009).

**Hypothesis Tests**

Descriptive statistics and intercorrelations of all study variables appear in Table 1.

Hypothesis 1 was supported as abusive leadership was related to the trajectories of players’ psychological aggression (technical fouls: $\gamma = .107, p < .01$; Model 2, Table 2). Figure 1 shows the results of Model 2 for technical fouls by plotting the trajectories for players who consistently experience high vs low levels of abusive leadership, showing that on average abusive leadership is associated with an upward shift in players’ trajectories of psychological aggression over their careers. However, in terms of the exploratory question, no significant relationships emerged between abusive leadership and increasing levels of psychological aggression (see Table 2) in terms of both linear ($\gamma = .012$, $ns$; Model 3) and quadratic ($\gamma = -.001$, $ns$; Model 4) slopes.

Our second hypothesis concerned the relationship between abusive leadership and task performance trajectories (see Table 3). Hypothesis 2 was supported as abusive leadership predicted a lowering of the trajectory of task performance ($\gamma = -1.033, p < .05$; Model 2). That is, there was a downward shift in players’ performance trajectories when their coaches displayed abusive leadership. Model 2 plots the prototypical trajectories for players who consistently experience high vs. low levels of abusive leadership (see Figure 2), showing that on average,
abusive leadership shifts players’ performance trajectories downward throughout their careers. Finally, in terms of the exploratory question regarding change in slope of performance, the results revealed that abusive leadership was not related to either the linear ($\gamma = .008, \text{ns};$ Model 3) or quadratic ($\gamma = .025, \text{ns};$ Model 4) change in the slope of the average player’s performance trajectory. That is, there was no change in the slope of the relations between abusive leadership and athlete task performance over time.

**Discussion**

Our goal in this research was to understand the career-long effects of abusive coach leadership on two different player outcomes, namely athlete psychological aggression and task performance. Our findings point to the importance of going beyond the current, or static effects of leadership in general, and abusive leadership in particular, and understanding the long-term effects of current leaders, and the lingering effects of former leaders on athlete aggression and task performance.

Support emerged for predictions regarding abusive leadership and athlete aggression. Abusive leadership was consistently associated with increased psychological aggression (i.e., technical fouls) over the course of the players’ career (Hypothesis 1). With regard to task performance, abusive leadership significantly predicted lower task performance across players’ careers (measured by the player efficiency score; Hypothesis 2). In terms of our exploratory questions about increasing or decreasing levels of psychological aggression and task performance, no support emerged (i.e., there was no change in the shape of the slope).

**Abusive Coach Leadership and Athlete Aggression**

Consistent with social learning theory predictions that the specific behavior modelled would be enacted in an observer’s behavior, we hypothesized that abusive leadership would be
associated with higher manifestations of psychological aggression (viz. technical fouls) across the players’ career, because abusive leadership involves non-physical behaviors enacted by the coach. Support for this emerged, as abusive leadership predicted psychological aggression, namely, technical fouls, committed by players (see Figure 1). Specifically, abusive leadership experienced at some point within the 6 years of the study shifted the players’ trajectory of psychological aggression upward across their career.

This is consistent with previous findings from organizational psychology showing that abusive leadership influences work-related aggression. However, the present findings extends this finding by demonstrating that there are long-term effects of abusive leadership on aggression across a player’s career. Finding that the effects of abusive leadership extend beyond immediate effects is consistent with Hicks’ (1965) earlier study showing that modeling effects are maintained for six months when the model is an authority figure. Players’ coaches could be considered authority figures who would have considerable power over the course of their careers. Intriguing longer-term effects may have existed in the previous research, but they were not investigated.

**Abusive Coach Leadership and Athlete Task Performance**

Consistent with prior research from organizational settings, abusive coach leadership was negatively associated with task performance across players’ career (Hypothesis 2). Specifically, experiencing abusive leadership at any point across the 6 years of the study shifted the trajectory of player performance downward (see Figure 2). By moving beyond static relationships and demonstrating career-long performance effects, this finding extends inferences about abusive leadership from prior research. Giving added importance to this finding, the task performance measure was derived from objective performance data (rather than supervisor ratings that typify
prior research), and the measure of task performance (i.e., player efficiency) is routinely used within the industry for major personnel decisions (e.g., hiring, salary, renewal). Moreover, ratings of abusive supervision were generated by trained raters, avoiding potential attributional biases (e.g., Burton et al., 2014) associated with assessments of abusive supervision made by the abused individuals.

**Strengths of the Current Study**

A particular strength of our findings is that they are derived from external, rather than self-reported data, allowing for greater confidence in the conclusions. First, most prior research on abusive leadership has been based on employee or victim reports of the abusive behaviors, leaving concerns about the construct validity of subordinate perceptions of abusive supervision unanswered. Specifically, Tepper’s original (2000) definition stated that abusive supervision reflected employees’ perceptions of the abusive behavior, and the assumption is that perceptions are sufficient to capture abusive behavior (Martinko et al., 2013). Martinko et al. (2013) questioned in a recent review whether perceptions of abusive supervision are sufficient given the role of other factors (e.g., subordinate personality), and suggest that abusive supervision could also be assessed objectively (Martinko et al., 2013). Our findings suggest that conclusions about the effects of abusive leadership may not depend on subordinate reports. Thus, the definition of abusive leadership and supervision might be expanded such that it is not limited to victim perceptions; this would allay concerns that abusive leadership is trivialized by its reliance on perceptions of abuse, rather than reflect verifiable occurrences of abusive supervision.

Second, unlike much of the research in which aspects of task performance are obtained from leader- and self-reports, the player efficiency score was derived from official data collected by the NBA, thus avoiding interpretative problems associated with outcome data collected by
leaders who might have been the source of the abuse. Use of the player efficiency score also ensures the ecological validity of the findings relating to task performance, as the player efficiency score is widely accepted in the NBA (e.g., in setting salary disputes, trade value). Last, data for psychological and physical aggression were obtained from calls made by professional referees who are carefully selected and continuously evaluated, thus lending greater credibility to the data.

**Limitations and Directions for Future Research**

Several factors might limit the generalizability and inferences that can be drawn from this study, the first of which pertain to the use of historiometric analyses. Assessments of the coaches’ leadership behaviors were based on historical accounts of how these leaders behaved, not from personal responses of the coaches or players. Thus, the biographies likely include some degree of interpretation by the writers of the articles from which the biographies were created, which may be biased and could affect the quality of the assessments. To counteract this, each of the biographies contained at least two different articles or excerpts written by different authors. In addition, the raters were trained how to base their ratings on the extent to which each item on the leadership questionnaire reflected the description of the coach’s behavior across the entire coaching biographies. Moreover, the assessors indicated a low level of familiarity with the coaches and the use of multiple assessors for each coach also minimizes the possible impact of biases from any one assessor. However, the potential for ratings to have been influenced by subjective interpretations, social construction, or attributions of behavior by the raters cannot be excluded, and future research should examine these relationships using primary source data.

In terms of our explanations of the links between the coaches’ behaviors and the player outcomes, we assume that the behavior of an abusive coach would be seen by all players in the
team. However, some members of the team would have personally experienced the abusive behavior and witnessed it directed at others, and others only witnessed or heard about it. Future research should investigate the differential effects of personal and vicarious experience of abusive supervision. Social learning theory (Bandura, 1978) would suggest that personal experiences of abusive supervision would have greater effects than vicarious experiences because of its greater experiential basis. Also, previous research suggests that individuals are not targeted randomly for abuse by their leaders (Ogunfowora, 2013). Instead, low performing employees (Tepper, Moss, & Duffy, 2011) and employees’ who engage in counterproductive behaviors (Lian et al., 2012) are more likely to experience abusive leadership. Therefore, it is critical for future research to (a) differentiate between the outcomes of the personal and vicarious experience of abusive leadership, and (b) focus greater attention on these “trickle-up effects” in understanding the antecedents of abusive leadership.

Our hypotheses regarding the effects of abusive leadership on task performance were informed by prior research within organizational settings, as well as the tenets of social learning theory (Bandura, 1986). Nevertheless, the results do not provide any evidence surrounding potential mechanisms that might explain the process(es) through which abusive leadership contributes to elevated player aggression and reductions in performance over time. For example, although coach abusive leadership might well influence athlete aggression via modeling effects or social identification, we were precluded from examining direct modeling and/or social identification due to the absence of available data (from the archival source). Similarly, in terms of explaining the effects of abusive supervision on athlete performance, cognitive resource allocation models (e.g., Kahneman, 1973) suggest that individuals have limited attentional resources and that abusive leadership affects performance by taking limited cognitive resources
away from on task-performance, and depletes these resources (Kanfer & Ackerman, 1989). Again, due to the archival data collected in this study we were precluded from examining whether psychological factors such as the depletion of cognitive resources (Kanfer & Ackerman, 1989) or reductions in self-efficacy (cf. Bandura, 1986) acted as explanatory mediators of the examined relationships. Future research should examine the potential mechanisms that explain how abusive leadership relates to athlete aggression and task performance over time.

Last, all coaches and players in the current study were male, thus limiting the generalizability of the findings. Additional research on both male and female coaches’ abusive leadership is made even more urgent because most research examining gender and leadership has focused on positive aspects of leadership behaviors (e.g., Paustian-Underdahl, Walker & Woehr, 2014), and males may be more likely to engage in negative forms of leadership (Eagly & Johnson, 1990; Eagly, Johannesen-Schmitt & van Engen, 2003). Indeed, research that examines potential moderating effects of coach (and athlete) gender would appear particularly warranted.

**Conclusion**

We set out to explore the career-long effects of abusive coach leadership on athlete aggression and task performance. Our results support the notion that abusive leadership negatively impacts the trajectory of athlete aggression and task performance over one’s career. These findings gain added importance as all data for abusive leadership, task performance and aggression were derived from external reports. Future research on abusive leadership in sport settings is clearly needed to further disentangle the effects of abusive leadership on athlete aggression and task performance.
References


Footnotes

1 We use the terms “abusive supervision” and “abusive leadership” interchangeably given that the initial intent was to cover both supervision and leadership under the umbrella term “abusive supervision” (Tepper, 2000).

2 We calculated the average tenure of NBA coaches, as of February 1, 2014, as 2.39 years. However, these data are upwardly inflated by one coach (Gregg Popovich) who has been with the same team for since the 1996/1997 season. Excluding his data, the average coach tenure is 1.17 years.

3 All biographies can be obtained at www.

4 The total number of teams in the league varied slightly across years.
Table 1.  
*Means, Standard Deviations and Correlations*

<table>
<thead>
<tr>
<th>Study Variables</th>
<th>Mean</th>
<th>SD</th>
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<th>3</th>
<th>4</th>
<th>5</th>
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<td>.12**</td>
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<td>.48**</td>
<td>.08**</td>
<td>.14**</td>
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<td>.09**</td>
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*Note.* N= 2,280 observations. **p <.01; *p <.05.*
### Table 2.
Player Technical Fouls Models 1-4

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<tr>
<th>Variable</th>
<th>Model 1 (Null Model)</th>
<th>Model 2 (Hypothesis test)</th>
<th>Model 3 (Exploratory test)</th>
<th>Model 4 (Exploratory test)</th>
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<td>SE</td>
<td>( \gamma )</td>
<td>SE</td>
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*Note. ** \( p < .01 \); * \( p < .05 \)
Table 3.
Player Efficiency Models 1-4

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Note. **p < .01; *p < .05
Figure 1. The figure shows the results of Model 2 for abusive supervision and technical fouls. Plotted are the prototypical trajectories for players that consistently experience high levels of abusive coaching and players who consistently experience low levels of abusive coaching. This figure shows that on average, abusive coaching is associated with an upward shift in players’ trajectories of technical fouls over their careers.
Figure 2. The figure shows the results of Model 2 for abusive supervision and player efficiency. Plotted are the prototypical trajectories for players consistently experience high levels of abusive coaching and players who consistently experience low levels of abusive coaching. This figure demonstrates that on average, abusive supervision shifts players’ performance trajectories downward throughout their career.