

**Overconfidence and the Collective:  
Expanding Our Understanding of the Social Effects of Overconfidence**

Scott Alan Baker  
Charlottesville, VA

Bachelor of Arts, Indiana University, 1994  
Masters of Science, University of Utah, 1996

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## **ABSTRACT**

Scholars have consistently found that organizations tend to perform poorly when they are led by overconfident leaders. Most existing accounts suggest that this happens because overconfident leaders form judgments and make decisions that often turn out to be unwise and detrimental to organizational performance. In this dissertation, I depart from this dominant perspective and suggest that overconfident leaders can also undermine performance by affecting how their followers think, act, and behave. In Chapter 1, I review the extant literature on overconfidence, outlining how it has primarily been studied and the effects of having overconfident leaders in organizations. In Chapter 2, I conduct four studies to demonstrate that overconfident leaders alter team member behaviors, processes, and performance. Finally, in Chapter 3, I look forward and build upon my results to consider additional research questions that should be considered. My dissertation findings demonstrate that overconfident leaders undermine collective performance not only by making poor or unwise decisions as past research would suggest, but also by inadvertently altering social processes that inhibit its members from functioning effectively. Given the importance of teams in contemporary organizations, understanding how overconfident leaders affect others is essential for managing this commonly occurring phenomenon.

Keywords: overconfidence; team learning; leadership; interaction avoidance

## CHAPTER 1

### EXPLORING THE COLLECTIVE CONSEQUENCES OF OVERCONFIDENCE

Our tendency to be overconfident is generally defined as “inaccurate, overly positive perceptions of one’s abilities or knowledge” (Anderson, Brion, Moore, & Kennedy, 2012: 719). It occurs when an individual’s assessment of his or her own abilities are miscalibrated with reality (Moore & Healy, 2008). Primarily studied to predict individual judgment and decision making, scholars have found that overconfident CEOs, for example, tend to overestimate their investment projects and make suboptimal investment decisions (Malmendier & Tate, 2002). Moreover, a host of other negative outcomes have been linked to overconfidence including business failure (Camerer & Lovallo, 1999), overpaying for business acquisitions (Hayward & Hambrick, 1997), wars (Johnson, 2004), and excessive stock trading (Barber & Odean, 2001). Although past work has explored the consequences of overconfident individuals’ decisions, what remains relatively unknown is the effect of overconfidence on others; that is, the collectives with whom the overconfident individual interacts. Emerging research suggests, for instance, that individuals acting in an overconfident manner are more likely to achieve and maintain status in groups (Anderson et al., 2012; Kennedy, Anderson, & Moore, 2013). Whereas these findings have begun to highlight the interpersonal nature of overconfidence, they still focus on assessing outcomes for the overconfident individual. In this dissertation, I seek to expand on our understanding of overconfidence through focusing on how overconfident individuals can influence the thoughts, feelings, and behaviors of others (i.e., groups and teams).

Exploring the effects that overconfident individuals have on others can lead to important new insights for how this phenomenon is understood and managed in organizations. In what

follows, I provide a review of the overconfidence literature outlining its definitional elements, antecedents, outcomes, and operationalizations. Then, building on emerging research that has demonstrated the social effects of overconfidence, I highlight the need to expand our understanding of overconfidence through focusing on how overconfidence can affect the psychology of collectives (i.e., groups and teams). In particular, I focus on how overconfident individuals can affect the behaviors, processes, and ultimately, the performance of teams.

### **Literature Review: Overconfidence**

#### **Definition**

Overconfidence is situated within a significant body of evidence in cognitive psychology demonstrating individual biases toward self-enhancement and positive illusions. These findings illustrate our tendency to view ourselves, and the world, more positively than warranted when compared to objective reality (see Dunning, Griffin, Milojkovic, & Ross, 1990; Dunning, Heath, & Suls, 2004). Our tendency to be overconfident operates across domains, biasing individuals to be overly optimistic about their own health, overestimate their performance in school and express overconfidence on decisions in the workplace. When individuals exhibit overconfidence, they tend to overestimate their own intelligence, skills and attractiveness (Taylor & Brown, 1994), demonstrate a high degree of certainty in their predictions and knowledge (Lichtenstein & Fischhoff, 1977), and place themselves above others when comparing their performance and abilities (Larrick, Burson, & Soll, 2007; Svenson, 1981). The resulting errors in judgment and decision making influenced by overconfidence often lead to disastrous results and have prompted some researchers to explore why this bias is so prevalent and persistent (Anderson et al., 2012; Haselton, Nettle, & Murray, 2015; Johnson & Fowler, 2011).

An individual can be overconfident in a variety of ways. These variations have resulted in different operationalizations and measurements (Moore & Healy, 2008; Chen, Crossland, & Luo, 2015). Moore and Healy (2008) have clarified these differences through defining three, empirically and conceptually distinct, types of overconfidence that encompass prior efforts in measuring this construct: (1) overestimation, (2) overplacement, and (3) overprecision. These distinctions represent an important contribution because, as their research has demonstrated, an individual's overconfidence can vary depending on how overconfidence is operationalized and measured.

The first type of overconfidence is overestimation. This occurs when an individual overestimates actual performance, knowledge, chance of success, or level of control over future events. For example, if an individual took a test and believed that he answered 80% of the questions correctly when, in reality, he only answered 40% correctly, he has overestimated his performance. Or, an individual can be overconfident by overestimating the level of control she has over future outcomes that are chance-based such as gambling (Fast, Sivanathan, Mayer, & Galinsky, 2012). The majority of overconfidence research, roughly 64%, explores overestimation (Moore & Healy, 2008).

Overplacement is the second type of overconfidence and captures about 5% of the studies (Moore & Healy, 2008). Overplacement refers to an individual's belief that he or she is better than others. This can occur when an individual rates him or herself above the median compared to others on a specific skill or performance on a test. When asking individuals to rate their driving ability as compared to others in the U.S., for example, Svenson (1981) found that 93% of US drivers placed themselves above the median, which is a result that is statistically impossible.

Overplacement is most closely related to a common social bias known as the better than average effect (Larrick et al., 2007); these terms are frequently used synonymously in the literature.

The third type of overconfidence, representing roughly 31% of the studies, is overprecision, which refers to excessive accuracy beliefs individuals have about their own judgments (Moore & Healy, 2008). For example, researchers commonly ask participants to rate their level of confidence in an answer or to provide confidence intervals around an answer such as the length of the Nile River. Results consistently show that individuals are overly confident in the precision of their answers (Klayman, Soll, Gonzalez-Vallejo, & Barlas, 1999; Soll & Klayman, 2004). Considering the importance of good decision making in organizations, demonstrating excessive confidence in the accuracy of a decision can carry significant implications for success and failure.

The outcomes of overconfidence vary based upon the type of overconfidence measured (Moore & Healy, 2008). The areas where overestimation is highest often produce the greatest underplacement (rather than overplacement): When estimating their ability to perform a hard task, such as answering obscure trivia, individuals tend to overestimate their own performance while simultaneously placing themselves below the performance of others (Larrick et al., 2007; Lichtenstein & Fischhoff, 1977). Thus, these two types of overconfidence can be negatively correlated. When overconfidence operationalizations are used interchangeably, the results are often conflicting. As such, it is imperative for overconfidence researchers to clearly specify the type of overconfidence being measured in order to accurately interpret the results.

Overconfidence is distinct from impression management, self-presentation and optimism. Impression management and self-presentation entail conscious efforts to present oneself positively to others (Baumeister, 1982; Goffman, 1959; Leary & Kowalski, 1990) whereas



scholars consider overconfidence a flawed, albeit genuine, perception of an individual's abilities and knowledge (see von Hippel & Trivers, 2011). Dispositional optimism involves having a positive expectation for the future without regard to how an individual can achieve these outcomes (Carver & Scheier, 2014). In contrast, overconfidence assesses an individual's perception of actual abilities and knowledge and does not necessarily entail having positive affect (McGraw, Mellers, & Ritov, 2004). For example, individuals who were overconfident in their free throw shooting ability experienced more negative affect with their actual performance. Thus, when overconfident predictions conflict with reality, the likelihood that an overconfident individual will be dissatisfied differs from an individual who is generally optimistic.

Overconfidence shares similarities with the definitional elements of narcissism and hubris in that both of these constructs capture excessive self-confidence and strong self-beliefs. Narcissism is defined as a "complex of personality traits and processes that involve[s] a grandiose yet fragile sense of self as well as a preoccupation with success and demands for admiration" (Ames, Rose, & Anderson, 2006, p. 441). Scholars define hubris as having exaggerated self-confidence and pride (Hayward & Hambrick, 1997; Hiller & Hambrick, 2005). With both hubris and narcissism, individuals tend to exhibit extreme confidence, feelings of superiority and a desire to lead (Emmons, 1987; Galvin, Waldman, & Balthazard, 2010; Rosenthal & Pittinsky, 2006).

Overconfidence is distinct from these two conceptually similar constructs in two important ways. First, overconfidence can vary according to prior experience and task difficulty (Larrick et al 2007; Moore & Healy, 2008) whereas scholars consider narcissism and hubris as relatively stable dispositional personality traits (see Foster, Campbell, & Twinge, 2003; Hiller & Hambrick, 2005). Second, overconfidence only exists in comparison to an external standard of

measurement (see Dunning, Griffin, Milojkovic, & Ross, 1990; Dunning, Heath, & Suls, 2004). Moreover, scholars have demonstrated that narcissists can also be humble (Owens, Wallace, & Waldman, 2015) reflecting the complexity of this personality trait and further demonstrating the conceptual distinctiveness of overconfidence.

In sum, overconfidence is a broad construct consisting of three distinct types (overestimation, overplacement, and overprecision) that measures an individual's genuine beliefs that his or her knowledge and abilities exceed what is supported by reality. In the next section, I explore the range of causes, or antecedents, that lead to overconfidence.

### **Antecedents**

A review of the literature provides evidence of four different types of antecedents leading to overconfidence. I categorize these antecedents as: 1) personality differences; 2) cognitive processes; 3) motivations, and 4) contextual factors. I review each antecedent in turn. Individual differences encompass an individual's self-views, gender, and personality characteristics. Starting with self-views, scholars have argued that relatively stable judgments individuals hold about themselves influence overconfidence (Ehrlinger & Dunning, 2003). For example, Shrauger and Terbovic (1976) found that individuals with higher self-esteem rated their performance higher on a conceptual learning task when compared to individuals with low self-esteem (Shrauger & Terbovic, 1976). Ehrlinger and Dunning (2003) found the chronic self-views that women held about their abilities in science influenced their decisions to enter a science competition even though they performed as well as men on a science quiz. The chronic self-views individuals held about their abilities operated independently of the actual performance itself.

Indeed, as a general trend, scholars have found men to be more overconfident than women (Estes & Hosseini, 1988; Fellner & Maciejovsky, 2007; Niederle & Vesterlund, 2007; Soll & Klayman, 2004). These effects were greatest in more masculine tasks such as financial acumen (Barber & Odean, 200) and mathematics (Jakobsson & Kotsadam, 2013). For example, overconfident beliefs resulted in men trading stocks more frequently and experiencing lower returns when compared to women (Barber & Odean, 2001). In addition, emerging research has highlighted how high levels of testosterone can decrease cognitive reflection, lower activity in the orbitofrontal cortex, and contribute to an individual's overconfidence (Beer, Lombardo, & Bhanji, 2010; Nave, Nadler, Zava, & Camerer, 2017). These findings provide further evidence as to why men are generally more overconfident than women.

Scholars have also found associations between specific personality attributes and overconfidence. Most consistently, scholars have found that narcissism contributes to overconfidence (Campbell, Goodie, & Foster, 2004; Judge, LePine, & Rich, 2006; Macenczak, Campbell, Henley, & Campbell, 2016; Palhus & Williams, 2002). Narcissists demonstrate greater amounts of self-deception and, as a result, these individuals are more likely to have overly positive self-evaluations that exhibit overconfidence (Palhus, 1998). For example, in a comparison of the dark-triads personality traits, Palhus and Williams (2002) found that narcissists exhibited overconfidence in both estimates of their IQ and performance on an over-claiming questionnaire as compared to psychopaths and Machiavellians. In regards to the Big 5 personality attributes, empirical results have been mixed. For example, Schaefer and colleagues (2004) found a significant relationship between extraversion and overconfidence, whereas other scholars have found no relationship between the Big 5 and overconfidence (see Anderson, et al.

2012; Moore & Healy 2008). Moreover, Anderson and colleagues (2012) found no significant relationship between optimism and overconfidence.

Cognitive processes also give rise to errors in judgment that lead to overconfidence. These judgment errors arise from a lack of metacognitive insight, information deficits, and the cognitive processes we use to update our confidence beliefs amidst asymmetric information about the self and others. Metacognitive insight, the ability to distinguish error from accuracy, results in an inaccurate view of one's own performance (Ehrlinger, Johnson, Banner, Dunning, & Kruger, 2008; Kruger & Dunning, 1999). Said differently, some individuals lack the necessary expertise to assess their own performance and this same lack of expertise prevents them from gaining insight into their own errors. For example, if John lacks the skills of grammar, he may also lack the skills to notice errors of grammar. This cognitive process is described as the double curse of incompetence and often results in the incompetent overestimating their skills and abilities (Kruger & Dunning, 1999).

Competent individuals also lack needed information and often receive incomplete feedback about their actions resulting in inaccurate judgments (Dunning, et al., 2004). *Unknown errors of omission* occur when individuals are simply not aware of the range of information or solutions that are available to solving a particular problem or making an effective judgment. They possess the skills allowing them to critique their performance, but simply lack knowledge of the range of possible solutions leading them to an inflated view of their performance. Moreover, incomplete feedback can also lead to overconfident views (Dunning et al., 2004). This incompleteness can arise from feedback delays or a disconnect between what specific behaviors caused particular outcomes.

Moore and Healy (2008) proposed a theory of overconfidence that describes how we update our confidence estimates through a Bayesian process after we experience a task. They explain how these confidence estimates are dependent both upon the difficulty of the task and our performance expectations. Information availability is a central element in their theory. Information about individual performance is imperfect but is better than the performance information we have of others' performance. As we update our beliefs, the interaction between the task and our expectations can lead to over- and underconfidence. For example, when individuals perform at a high level they tend to engage in overplacement (i.e., they think they are better than others) while simultaneously underestimating their own performance. When performance is low, however, individuals tend to overestimate their own performance and engage in underplacement (i.e., they think they are worse than others). In sum, this research indicates our cognitive abilities to make accurate performance assessments and predictions is limited and can lead to overconfidence errors.

Motivations can also act as important antecedents of overconfidence. For example, scholars have argued that individuals are driven to hold overly positive views of themselves because it provides them with psychological benefits such as improved self-esteem (Alicke, 1985; Dunning, Leuenberger, & Sherman, 1995). In addition, Anderson and colleagues (2012) tested a status-enhancement theory of overconfidence and found that the desire for status increased overconfidence. This overconfidence led to a set of behaviors (i.e., talking more than others; speaking with a confident, factual tone; and, providing relevant information) which group members were more likely to perceive as cues for competence thus leading to higher status. Amidst these motivational accounts, however, recent evidence urges caution on the effects that motivation can have on an individual's overconfidence. Logg and colleagues (2018) found that

when the standards of evaluation are not specific and objective, such as vague personality traits, individuals created idiosyncratic definitions that led to overconfidence. However, when standards were objective and specific, motivation did not influence overconfidence. Whereas motivation appears to be an important antecedent in some research, contextual factors and study design appear to moderate the effect that motivations can have on overconfidence.

Finally, emerging work on overconfidence suggests that context matters. The social context provides structures, feedback, and learning that can influence overconfidence. For example, Forbes (2005) found that contextual influences, such as the presence of external investors, was negatively related to overconfidence in entrepreneurs and overconfidence increased as decision-making comprehensiveness increased. Hayward and Hambrick (1997) have argued that positive media portrayals of organizations can lead to CEO hubris, which has been conceptualized similarly to overconfidence. Hilary and Menzly (2006) demonstrated that analysts who had prior success were more overconfident in their ability to forecast future earnings. Experiencing power led to overconfident decision making and monetary losses (Fast et al., 2012). Interestingly, even the type of mindset individuals are taught can contribute to their overconfidence (Ehrlinger, Mitchum, & Dweck, 2016): Individuals taught an entity, or fixed theory of intelligence, tend to avoid negative information and difficult problems which, in turn, can lead to a higher demonstration of overconfidence. Taken together, these findings suggest the varied and important role the social context can play in shaping an individual's overconfidence.

In summary, although past scholars have emphasized the role of individual attributes as the primary antecedents of overconfidence, the field is beginning to uncover other drivers of this phenomenon. The growing knowledge of how contextual influences can act to influence others' overconfidence presents an especially promising avenue for theory development. Next, I provide

a review of the empirical outcomes documented to occur as a result of overconfidence, and then outline the ways in which scholars have operationalized overconfidence.

## **Outcomes**

The outcomes experienced by individuals from their overconfidence can be captured across five broad themes. Overconfident individuals: 1) overestimate their abilities and likelihood of success; 2) ignore information; 3) take greater risks; 4) experience less enjoyment from their achievements, and somewhat contrarily; 5) experience greater motivational and social benefits than others. As these themes suggest, the vast majority of empirical outcomes at the individual level are negative. However, some scholars have argued that overconfidence can confer tangible benefits. I begin with a review of the negative outcomes, and conclude with evidence pointing toward the potential benefits of overconfidence.

First, overconfident individuals overestimate their abilities and likelihood of success leading to sub-optimal judgments and performance failures. Camerer and Lovallo (1999) provided one explanation for the high rate of business failures from their findings demonstrating how overconfidence led to excessive entry into competitive markets. Through the use of experimental games, the authors demonstrated that, when the outcomes were based upon an individuals' skill, participants overestimated their chance of success, entered into competitive games too often, and subsequently failed at a high rate. In addition, scholars have found that hubristic CEOs have tended to overestimate their ability to manage the firms they wanted to acquire and eventually overpaid for them leading to greater shareholder losses (Hayward & Hambrick, 1997); complementarily, overconfident CEOs systematically overestimated the return from their corporate investment projects (Malmendier & Tate, 2005). Scholars have also demonstrated that, when someone was highly confident and overestimated their performance,

they believed they did not need to try as hard and performed worse (Stone, 1994). For example, the person who is overconfident about his ability to deliver a presentation does not believe he needs to prepare and subsequently performs worse.

Second, overconfident individuals resist receiving and acting upon new information, leading to errors and reduced learning. Overconfident individuals are more likely to deny their potential flaws (Yukl, 2002) and show little insight of their deficiencies relative to peers (Ehrlinger et al., 2008). Overconfident individuals also overweigh the value of their private information and are less likely to listen to advice from others (Bernardo & Welch, 2001; Gino & Moore, 2007). The outcomes of these behaviors can be demonstrated in results showing how overconfident CEOs are less responsive to corrective feedback in their organizations (Chen et al., 2015). For example, in one study, overconfident CEOs were more likely to attribute decision making failures to external factors and bad luck rather than on internal factors or their own incompetence (Chen et al., 2015). Thus, overconfident individuals were more likely to ignore corrective feedback, continue to make the same mistakes, and incorporate less corrective feedback into future decisions.

Third, overconfident individuals are generally insensitive to, and take greater, risks. These risks can range from frequent stock trading to decisions about business entry, incentive schemes, and product introductions. Overconfident investors (predominantly male) held riskier stock portfolios and underperformed as compared to less confident (primarily female) investors (Barber and Odean, 2001). In competitive experiments, overconfident students entered into riskier contracts and preferred riskier incentive schemes because they believed they could beat the odds (Camerer & Lovallo, 1999). In the tech industry, overconfident managers led to the introduction of riskier products (Simon & Houghton, 2003). As a whole, these findings point to



important ways in which overconfident individuals can contribute to decreased performance in organizations.

Fourth, the consequences of being overconfident can extend to our emotional states. Overconfident individuals experience decreased affective enjoyment from their performance outcomes (McGraw, Mellers, & Ritov, 2004). Studying recreational basketball players shooting shots, McGraw and colleagues (2004) found that, as overconfidence in shot making ability increased, the pleasure they experienced with their shot making outcomes decreased. In a second study, the authors showed that players who were better calibrated in their assessments from a debiasing exercise expressed greater pleasure from the task they completed. This research highlights how expectations arising from overconfident predictions can influence our emotional well-being.

Finally, amidst the past findings of negative individual outcomes, evolutionary psychologists have argued that overconfidence provides social benefits. Haselton and colleagues (2015) posited that some cognitive biases viewed as flaws from one perspective can be understood as adaptations from another. This logic provides an evolutionary reason for the existence of an apparent design flaw. If this design flaw served to help humans solve problems that contributed to their overall fitness, then it is not a flaw, it is a positive feature. Viewed from this perspective, overconfidence is seen as a design feature providing motivational benefits through ambition and persistence that might outweigh other costly decisions and failures. Similarly, Johnson and Fowler (2011) argued that overconfidence can be beneficial on average because it increases resolve, persistence, ambition, or the credibility of one's bluffing. They developed an evolutionary model demonstrating how these features can increase net payoffs in competition or conflict over the course of history demonstrating that overconfidence might have

been favored by natural selection. Lending further support to these evolutionary arguments, Anderson and colleagues (2012) found that overconfidence resulted in higher status because group members perceived these individuals as more competent.

In sum, a significant amount of empirical evidence has demonstrated clear costs associated with overconfidence along with some benefits. However, these empirical findings predominantly inform individual-level outcomes (e.g., greater risk taking, insensitivity to feedback, and higher status) rather than the effects that collectives could experience as a result of interacting with overconfident individuals.

### **Overconfidence Operationalizations**

Scholar have studied overconfidence using four different operationalizations: 1) operational indices; 2) social comparison; 3) self-insight, and; 4) componential analysis. I review each approach in turn. Scholars that operationalize overconfidence using operational indices typically compare an individual's actual knowledge or ability against an objective, verifiable standard (Anderson, et al., 2012; Moore & Healy, 2008). For example, Moore and Cain (2007) employed quizzes and asked participants to estimate how many questions they answered correctly. Overestimation, a form of overconfidence, was then calculated by comparing an individual's estimated performance against his or her actual performance.

A second method for operationalizing overconfidence utilizes a social comparison approach. Using this method, an individual has overly positive self-views if they rate themselves higher in comparison to how they rate others (Kwan, John, Kenny, Bond, & Robbins, 2004; Taylor & Brown, 1988). For example, Svenson (1981) used this method when asking US drivers to rate their driving ability in comparison to other drivers. Scholars have widely criticized this

approach because it fails to distinguish individuals that are justifiably above average from individuals with inaccurate self-views (Anderson, et al., 2012; Kwan, et al., 2004).

A self-insight approach represents a third method for operationalizing overconfidence. Here, researchers compare an individual's self-assessment with others' (e.g., peers, direct reports, supervisor, etc.) assessment of the focal individual (Fleenor, et al., 2010; Kwan, et al., 2004). Using this method, an individual has overly positive self-views when they overestimate their knowledge or abilities in comparison to others' ratings of them. Scholars have commonly used this approach for measuring the self-other agreement between leaders and their followers (see Fleenor, et al., 2010). Consistent with the social comparison approach, this method has also received criticism in that it fails to account for individual biases in how we perceive our interpersonal relationships (Kwan, et al., 2004). For example, as a rater, I might have a bias to be more critical on my self-assessments than the assessments of others. These biases confound the ability to determine an accurate perception of an individual's ability using multi-rater feedback.

A final approach used in operationalizing overconfidence, developed by Kenny and La Voie (1984) and expanded to include a self-enhancement index (Kwan, et al., 2004), utilizes componential analysis. This method overcomes the challenges of the self-insight approach by decomposing the perceiver, target, and relationship effects that exist when measuring interpersonal perceptions. For example, an individual might have a tendency to rate all group members highly in comparison with other group members. Social relations modeling accounts for this positive variance when determining a final measure such as an individual's extraversion.

In sum, scholars have used four different methods to operationalize overconfidence. Operational indices represent the most effective method for determining an individual's actual overconfidence. However, in the realm of interpersonal perceptions, such as leadership where

objective standards do not exist, the use of a self-insight or componential approach is necessary for determining social perceptions of overconfidence.

### **Expanding our Understanding of the Collective Consequences of Overconfidence**

A review of the overconfidence definitions, antecedents, outcomes, and operationalizations demonstrates how scholars have primarily studied this phenomenon as an individual difference, with relatively stable properties, resulting in predominantly suboptimal outcomes for the overconfident individual. Emerging research, however, has begun to investigate how individual overconfidence has broader collective consequences within two important contexts, groups and teams. I review this research in the next section highlighting what scholars have learned, and identify important areas that require further investigation. I then outline how I plan to build on these findings to further explore the collective consequences of overconfidence in Chapter 2. I close by summarizing the additional, future directions this line of inquiry can follow to broaden our understanding of how overconfidence can affect collective outcomes.

#### **Overconfidence in Groups**

Recent research investigating the collective consequences of overconfidence has found that overconfidence confers social benefits to individuals (Anderson, et al., 2012; Kennedy, et al., 2013). Group members were more likely to perceive overconfident individuals as competent and subsequently afforded them higher status in groups (Anderson, et al., 2012). This was because in social situations, they behaved in ways that made them appear competent in the eyes of others (e.g., assertive, self-assured). Furthermore, the authors demonstrated that a desire for status promoted overconfidence.

This status enhancement theory of overconfidence, however, did not test the possible consequences of having one's overconfidence revealed to others (Kennedy, et al. 2013). For

example, if Jane's overconfidence remains hidden to her peers, and she gains status as a result of this overconfidence, will she be punished when others learn of her overconfidence? A series of studies by Kennedy and colleagues (2013) addressed this question and demonstrated that group members did not punish overconfident individuals once this knowledge was revealed to others. Not only were they not punished, the overconfident individuals continued to be viewed as socially skilled.

As a result of these benefits, overconfidence can increase the likelihood of gaining and maintaining status in an organization and does not appear to incur social costs. An important implication of this work is that the individuals who rise in the hierarchy are likely to have a miscalibrated sense of their abilities and might avoid social punishment. This result further increases the need to understand the potential collective consequences from other groups and teams interacting with overconfident leaders. Whereas these findings investigate how overconfidence interacts within groups, it continues to emphasize the effects for the overconfident individual, not the collectives with whom they interact. In Chapter 2, I propose exploring how overconfident team leaders affect the behaviors and processes of team members. I will then build on these findings to determine if and how overconfident leaders affect a team's performance.

### **Overconfidence in Teams**

Several scholars have begun to study the relationship between overconfident leaders and their teams. Thus far, scholars have primarily employed a self-insight approach, using ratings from team leaders and team members to calculate overestimation – a type of overconfidence (see Aarons, Ehrhart, Farahnak, Sklar, & Horowitz, 2017; Benlian, 2014; Gibson, Cooper, & Conger, 2009) – and its subsequent effects on team performance. Results thus far are mixed, and fail to

provide clear evidence of both how, and if, leader overconfidence affects team behaviors, processes, and performance.

For example, in a study of IT help desk teams, Benlian (2014) found that when leaders and their team members agreed on the leader's service leadership, team performance outcomes were higher. His results also suggested teams with overestimating leaders had lower team performance, but this result was not statistically significant. Moreover, Benlian (2014) did not explore how team members responded to an overestimating team leader, he simply looked at team performance. In another study of 38 mental health teams, Aarons and colleagues (2017) found that leaders who overestimated their transformational leadership had teams with more defensive cultures (Aarons, et al., 2017). This suggests that overestimating leaders can lead to worse team outcomes, but they did not measure actual team performance. And finally, Gibson and colleagues (2009) explored how leader and team member agreement/disagreement in the areas of team goal accomplishment and constructive conflict affected team performance. They found that greater disagreement between team members and leaders led to worse team performance. However, they also found that overestimating leaders had teams with slightly higher team performance. Whereas these results appear to contradict Benlian (2014) – that overestimating leaders diminish team outcomes – it is important to note that they were measuring team processes and not estimates of leadership ability.

Taken together, these findings represent a promising start for increasing our understanding of the collective consequences of overconfidence. Yet, much remains unknown. First, it remains unclear how interacting with an overconfident leader affects others (e.g., team members). For example, do team members behave differently? Are team processes affected? Second, it remains unclear if, and how, overconfident leaders diminish team outcomes. For

example, do judgment errors from an overconfident leader diminish team performance regardless of how the team behaves? Or, does the team itself perform worse in the presence of an overconfident leader thus contributing to lower performance outcomes?

### **Preview of Chapters 2 and 3**

This dissertation attempts to explore such collective consequences, and their mechanisms, through understanding how overconfident individuals affect the behaviors, and ultimately, performance of others. More specifically, this research seeks to answer the following research question: How does the overconfidence displayed by a leader influence the collective (e.g., groups and teams)? Exploring the collective consequences that overconfident leaders have on others can lead to important new insights for how we understand and manage this pervasive phenomenon in our organizational lives.

Teams represent a promising context for exploring this question. Teams are interdependent groups of individuals with clear boundaries and an identity that share responsibility for producing a set of outcomes (Cohen & Bailey, 1997; Hackman, 1987). Organizations are increasingly providing teams with more responsibility (Yukl, 2002) and organization's see teams as important to their success (Cohen & Bailey, 1997). Most teams have a leader that significantly affects team performance through structuring the team, defining goals, and securing the resources necessary for the team to succeed (Zaccaro, Rittman, & Marks, 2002). Leaders also emerge informally to influence team motivation, direction, and processes. (Day, Gronn, & Salas, 2004; Morgeson, et al., 2010; Pearce, 2004). Consistent with formal leaders, informal team leaders also influence team performance (Ensley, Hmieleski, & Pearce, 2004; Sivasubramaniam, Murry, Avolio, & Jung, 2002). Thus, a team provides a good context for understanding how the behaviors and judgments of overconfident leaders can affect others

through their attempts to collaborate, make decisions, learn, and influence performance outcomes.

Accordingly, in Chapter 2, I propose that overconfident leaders are likely to affect team member behaviors, processes, and performance outcomes. For example, when an overconfident leader misjudges risks (Camerer & Lovallo, 1999; Simon & Houghton, 2003), sets unattainable goals (Malmendier & Tate, 2005), or fails to develop a plan (Shipman & Mumford, 2011), the team's collective outcomes are likely to suffer. Thus, in Study 1, I first look for a relationship between overconfident leaders and team performance. Then, in Studies 2 and 3, I focus on how team members respond to overconfident leaders. Here, I seek to identify how overconfident leaders affect team member behaviors and processes. Finally, Study 4 fully tests my theoretical model positing that team members seek to avoid overconfident leaders and these avoidance behaviors decrease team learning behaviors and subsequent performance outcomes.

In Chapter 3, I build on the empirical results that emerged from Chapter 2, and outline several promising future directions. A few of these areas include a broader exploration into how best to operationalize leader overconfidence, understanding if, and how, overconfident leaders affect team goal setting, and mapping out how overconfident leaders interact with their social network.

To close, the goal of my dissertation is to begin to answer the following question: How does the overconfidence displayed by a leader influence the collective (e.g., groups and teams)? My studies in Chapter 2 explore this question through focusing on specific team member behaviors (avoidance) and processes (learning), but many additional, fruitful, areas remain to be studied. In addition, considering the effects that overconfident individuals have on collectives has both significant theoretical, and practical, implications. Theoretically, recognizing that



overconfidence from an individual leader affects the psychology of others can shift how we study this phenomenon. Practically speaking, developing a better understanding of the negative, and potentially positive, implications for teams arising from overconfident leaders is essential for increasing organizational effectiveness. This dissertation begins this journey.

## **CHAPTER 2:**

### **HOW TEAM LEARNING AND PERFORMANCE SUFFERS FROM AVOIDING OVERCONFIDENT LEADERS**

In his now infamous January 14, 2015 press conference Rex Ryan, the new coach of the Buffalo Bills American football team, predicted that he would “end the Bill’s 15-year playoff drought and lead the league in defense” (Hunter, 2016). Ultimately, Ryan’s belief in his abilities far exceeded reality: He and his team failed to achieve either of these bold predictions. Moreover, “the Bills’ defense got considerably worse after Ryan took over” (Battista, 2016). Ryan is an example of what scholars consider overconfidence (e.g., Anderson, Brion, Moore, & Kennedy, 2012; Meikle, Tenney, & Moore, 2016; Moore & Healy, 2008). Given an extensive body of work showing that overconfidence can negatively affect leader effectiveness (Atwater, Ostroff, Yammarino, & Fleenor, 1998; Ostroff, Atwater, & Feinberg, 2004; Van Velsor, Taylor, & Leslie, 1993), his overconfidence is likely to have hindered his own ability to coach effectively.

Indeed, the dominant narrative in the literature is that overconfident leaders undermine organizational performance by making unwise and risky executive decisions (see for a review, Meikle et al., 2016; van Zant & Moore, 2013). For example, past research has found that overconfident CEOs tend to make suboptimal investments because they systematically overestimate the returns of their investments (Malmendier & Tate, 2005). And, in another study of 394 large, publicly traded U.S. companies, overconfident CEOs were 65% more likely to make a value-destroying acquisition (Malmendier & Tate, 2008). These explanations tend to use a cognitive lens that emphasizes the detrimental impact of overconfidence on judgment and decision-making (e.g., Barber & Odean, 2001; Camerer & Lovallo, 1999; Chen et al., 2015;

Simon & Houghton, 2003).

What remains less clear is whether there are other viable mechanisms by which overconfident leaders undermine organizational outcomes. For example, it is possible that overconfident leaders create poor organizational outcomes not only by making bad executive decisions, but also by inadvertently affecting the thoughts, feelings, and behaviors of individuals with whom they regularly work. In other words, there is still a black box that exists between overconfident leaders and the poor outcomes they create, above and beyond explanations that focus on their flawed judgment and risk-taking. Inside that black box, I argue, are the individuals who work with the overconfident leader.

In this paper, my goal is to open up this black box by testing a previously unexplored mechanism in this literature. Specifically, I suggest that overconfident leaders can also undermine organizational performance by negatively affecting the behaviors and processes of their team, a relationship that is relatively understudied. By using a social-psychological lens, my theoretical account elevates the impact of overconfident leaders on *social* processes, showing that overconfident leaders can undermine performance by altering the attitudes, feelings, and behaviors of the individuals in their team.

In what follows, I develop and test a theory of how overconfident leaders affect team performance. In developing my theory, I integrate research on the behavioral characteristics of overconfident individuals (Anderson et al., 2012; Chen, Crossland, & Luo, 2015), emotion as feedback system theory (Baumeister, Vohs, DeWall, & Zhang, 2007), and team learning behaviors (Edmondson, 1999; 2002). Consistent with previous scholars, I conceptualize leadership as a mutual influence process (Bedeian & Hunt, 2006; Collinson, 2005; DeRue & Ashford, 2010; Gronn, 2002; Parry, 1998; Uhl-Bien, Marion, & McKelvey, 2007). The

leadership process can occur irrespective of one's position in the hierarchy and exists as a state of being that individuals can enter into regardless of their formal role (Quinn, 1996).

I propose that an overconfident leader's behavior, which includes speaking first and often (Anderson et al., 2012), a resistance to feedback, and externalizing failures (Chen et al., 2015) will disrupt both team interactions and learning over time, causing the team to perform less effectively. I argue that interacting with overconfident leaders will trigger negative emotions and produce avoidance behaviors from team members. As interaction avoidance increases from team members, the team's ability to learn from each other will be impaired. I conceptualize team learning "as an ongoing process of reflection and action, characterized by asking questions, seeking feedback, experimenting, reflecting on results, and discussing errors or unexpected outcomes of actions" (Edmondson, 1999: 353). It is a specific team capability linked to team performance outcomes and outputs such as services or processes that are perceived as valuable and of high quality (Hackman, 2002; Wageman, Hackman, & Lehman, 2005). Taken together, I suggest that overconfident leaders will generate greater interaction avoidance from team members leading to fewer team learning behaviors and ultimately lead to worse team performance.

My results make three contributions. First, I expand our understanding of the social consequences of overconfidence to include effects on team interactions, processes, and performance. Thus, my research changes our thinking about the effects of overconfidence beyond individual judgments to the alteration of collective behaviors and effectiveness. Second, I contribute to the literature on team learning by demonstrating a specific learning-related challenge encountered by teams in the field – how overconfident leaders affect the learning processes of teams. And third, I add to the emotion as feedback system literature with

longitudinal, field data demonstrating how individual affective experiences resulting from interacting with overconfident leaders can shape the interactions of one's team.

In the following sections, I begin by clarifying the construct validity of overconfidence. I then theorize how and why overconfident leaders can negatively influence team performance through interaction avoidance and team learning behaviors. Across two field studies, one critical incident study and one quasi-experimental study, utilizing samples of working adults and MBA students, I find consistent results that support my theory and hypotheses.

## **THEORY AND HYPOTHESES**

### **Overconfidence: Definitional Clarity**

Scholars define overconfidence as having overly positive beliefs that exceed a measurable reality (Anderson et al., 2012; Meikle et al., 2016; Moore & Healy, 2008). Overconfidence can manifest in at least three different ways (Moore & Healy, 2008; Chen, et al., 2015). The first form is called overestimation, or having an exaggerated sense of one's ability, relative to an objective operational criterion (Moore & Healy, 2008). For example, if an individual took a test and believed that he answered 80% of the questions correctly when, in reality, he only answered 40% correctly, he has overestimated his performance. The second form is called overprecision, or having an excessive faith in knowing the truth. For example, if a student adamantly believes that the Amazon river is exactly 2,000 miles long, then he is being overly precise. And finally, individuals can exhibit overplacement, or having an exaggerated belief that they are better than others. For example, an individual might think that he is the top performer in his class, when in fact, he is at the bottom percentile.

Overconfidence shares some conceptual overlap with other constructs like narcissism (i.e., the extent to which individuals hold a grandiose view of themselves; Ames, Rose, &

Anderson, 2006), self-esteem (i.e., the extent to which individuals hold themselves to a high regard; Rosenberg, 1965), and optimism (i.e., the extent to which individuals hold generalized favorable expectancies in the future; Carver, Scheir, & Segerstrom, 1994). Overconfidence and these related constructs all tap into positivity of self-views, which capture how favorably or unfavorably individuals see their abilities (Humberg, Nestler, & Back, 2018). However, the key difference is that overconfidence necessitates a comparison of self-views to an objective standard (Moore & Schatz, 2017). For example, an individual who thinks she is good at math is not necessarily overconfident if reality indicates that she is, in fact, good at math. However, she would be overconfident if her self-view exceeded her actual ability.

Overconfidence is also distinct from impression management and self-presentation. Impression management and self-presentation entail deliberate efforts to present oneself positively to others (Baumeister, 1982; Goffman, 1959; Leary & Kowalski, 1990) whereas scholars consider overconfidence as a flawed, albeit genuine, self-perception (von Hippel & Trivers, 2011) which can vary according to prior experience and task difficulty (Larrick et al 2007; Moore & Healy, 2008).

### **The Effect of Overconfident Leaders on Team Outcomes**

Teams are a suitable context for studying the effects of overconfident leaders on social processes because they are interdependent groups of individuals with clear boundaries, an identity, that share responsibility for producing a set of outcomes (Cohen & Bailey, 1997; Hackman, 1987). Team members have ongoing interactions with one another as they coordinate to set goals, develop plans, make decisions, and engage in task execution. Throughout these interactions, leaders have elevated status and therefore are in a unique position to affect their followers' thoughts, feelings, and actions. Team members, on the other hand, have opportunities

to observe a leader's confidence, competence, and actual performance.

Some research has examined how overconfident leaders affect team performance. For example, Benlian (2014) found that teams with overconfident leaders tend to perform more poorly compared to teams with appropriately calibrated leaders. Notably, Benlian (2014) did not provide empirical evidence as to why this is the case. Recent research has attempted to answer this question by investigating how overconfident leaders affects team processes. For example, Aarons and colleagues (2017) found that teams with overconfident leaders tend to have more negative cultures than teams with appropriately calibrated leaders. However, their research is unclear whether overconfident leaders create negative cultures, or whether overconfident individuals have a greater propensity to join teams with negative cultures. Therefore, although some research seems to suggest that overconfident leaders undermine team performance, the reason why this is the case has not been properly answered.

### **Why Overconfident Leaders Undermine Team Performance**

To answer this question, it is helpful first to understand how overconfident individuals behave in social groups. In social settings, overconfident individuals tend to come across to others as though they are actually competent. For example, in social situations, overconfident individuals tend to speak first, use a confident and factual vocal tone, and talk more than others (Anderson et al., 2012). At limited acquaintance, individuals can find these qualities to be generally admirable. Indeed, individuals tend to grant status to overconfident individuals because they see those individuals as though they are actually competent (Anderson et al., 2012; Kennedy, Anderson, & Moore, 2013; Tenney, Meikle, Hunsaker, Moore, & Anderson, 2018).

Although overconfident individuals might initially be perceived positively, over time they might be evaluated less favorably once group members have the opportunity to observe

those individuals in more detail (Leckelt, Kfner, Nestler, & Back, 2015; Ong, Roberts, Arthur, Woodman, & Akehurst, 2016). For example, a leader might confidently claim she knows how to perform a type of financial analysis but team members might observe that this does not seem to be the case.

When group members discover that their leaders are not as competent as they were initially expected to be, team members might find the experience of working with an overconfident leader to be frustrating, for at least three reasons. First, individuals generally dislike expressions of confidence from individuals that seem to lack credibility (Tenney et al., 2018). Second, individuals might feel that their leader is undeserving, given that individuals generally want to see that status in groups is proportional to their expertise. Third, overconfident leaders have a propensity to resist feedback (Chen et al., 2015; Yammarino & Atwater, 1997), externalize failures (Bernardo & Welch, 2001; Chen et al., 2015; Gino & Moore, 2007), and deny their flaws (Ehrlinger et al., 2008; Yukl, 2002). As a result, group members might see their leader as somebody who lacks self-insight and is unreceptive to input (e.g., Grant et al., 2011).

### **How Members Might Respond to Overconfident Leaders**

Interacting with an overconfident leader who seems to lack credibility, receptiveness, and self-insight might elicit frustration and anger among team members (Krehbiel & Cropanzano, 2000; Weiss, Suckhow, & Cropanzano, 1999). Drawing on emotion as feedback system theory (Baumeister et al., 2007), I argue that these negative emotions are likely to trigger avoidance behaviors (Tooby & Cosmides, 2008).

Emotion as feedback system theory states that affective experiences shape individuals' cognitive processes, which in turn, serve as input into their decision and behavior regulation processes (Baumeister et al., 2007). Specifically, this theory posits that the emotions we



experience from a prior event can shape how we make sense of that experience and relate it to our motivations and values. Prior negative emotional experiences, for example, are likely to affect future behavior because individuals begin to choose future behaviors “based on anticipated emotional outcomes” (Baumeister et al., 2007: 196). For instance, Nifadkar and colleagues (2012) found that when new employees interacted with verbally aggressive supervisors, they felt a variety of negative emotions, which in turn, predicted how much they sought to avoid their supervisors in the future, how motivated they felt to do their jobs, and how willing they were to act on the company’s behalf.

Similarly, I posit that the negative emotions that team members might feel from having an overconfident leader will undermine their motivation to interact with that leader. This hypothesis is consistent with observations made by previous scholars, who have found that individuals tend to avoid working with miscalibrated individuals (Tenney et al., 2018; see also Anderson, Ames, & Gosling, 2008; Anderson, Srivastava, Beer, Spataro, & Chatman, 2006). For example, Tenney and colleagues (2018) found that when confident individuals made a verbal claim that turned out to be wholly untrue, observers felt disinclined to select those confident individuals as collaborators.

### **Avoidance Behaviors Undermine Team Learning and Performance**

In a team context where there is a high degree of interdependence, avoidance can take several forms. For example, team members might choose not to attend team meetings or planning sessions in which their leader might be present (Farrell, 1983). Or, if they choose to attend such meetings, they might arrive late, plan to leave early, or keep their engagement at a minimum to shorten their interaction with their leader as much as possible (e.g., Ashforth & Lee, 1990).

These behaviors are likely to disrupt the process of team learning (Argote, Gruenfeld, & Naquin, 2001; Edmondson, 1999). When team members are not present (Farrell, 1983) or when team members are not fully engaged, teams have restricted access to the range and diversity of ideas available for team learning (Van der Vegt & Bunderson, 2005). As a result, teams will be unable to fully leverage and combine the expertise that resides in each individual member (Thomas-Hunt, Ogden, & Neale, 2003). Avoidance and disengagement also undermines team performance, because these motivational states make it difficult for individual members to be motivated to generate new knowledge and ideas (Gibson & Vermeulen, 2003; Lau & Murnighan, 2005; Van der Vegt & Bunderson, 2005).

Collective learning is critical for team performance (Ancona & Caldwell, 1992; Edmondson, 1999; Michael, 1973; Schein, 1993; Sitkin, 1992; Van der Vegt & Bunderson, 2005). When team members are able to share their unique expertise to each other, they are able to execute and innovate more effectively (Edmondson et al. 2007). For example, when team members are able to leverage the individual talents of their team members, they are quicker to discover potential errors and failures (Michael, 1973; Schein, 1993; Sitkin, 1992) and they are also better at coming up with creative ideas (Henderson & Clark, 1990). Thus, if an overconfident leader affects the social processes in teams in the way I describe, then the end result should be lower team performance. That is, when leaders are overconfident, team members might feel demotivated to interact with their leader, which in turn, would negatively impact the ability of teams to learn from each other, ultimately resulting in lower performance. Formally, I offer the following five hypotheses:

*Hypothesis 1. Overconfident leaders will be negatively associated with team performance.*

*Hypothesis 2. Team members will seek to avoid their leader to the extent that they see their leader as overconfident.*

*Hypothesis 3. Team member avoidance will negatively affect team learning.*

*Hypothesis 4. Team learning will be positively associated with team performance.*

*Hypothesis 5. Overconfident leaders decrease team performance through a two-stage indirect effect of increased interaction avoidance and decreased team learning behaviors.*

### **Overview of Empirical Studies**

I tested my hypotheses across four separate studies using working adults (Studies 1 – 3) and first year MBA students (Study 4) assigned to student teams. In Study 1, I used field data from a total of 1,230 individuals nested within 157 intact teams, and data from 1,143 external stakeholders to test the hypothesis that overconfident leaders undermine team performance (H1). Then, in Studies 2 to 4, I sought to examine why this is the case, using a diverse set of methodologies. In Study 2, I conducted a qualitative critical incident study among working professionals to gain a rich understanding of what employees experience when they have to work with an overconfident leader. In Study 3, I conducted a quasi-experimental study to test the hypothesis that team members seek to avoid their team leader when they perceive their leader as overconfident. Finally, in Study 4, I tested my full theoretical model using a longitudinal study of 291 individuals nested within 55, first-year MBA student teams, examining whether overconfident leaders diminish team performance by increasing avoidance behaviors and decreasing team learning behaviors.

### **Study 1**

The goal of Study 1 was to test my first hypothesis that teams perform poorly when their

leaders are overconfident. However, one issue that pervades the overconfidence literature is how to appropriately measure overconfidence. Many scholars believe that overconfidence is not necessarily a global trait: Individuals can be overconfident in some domains (e.g., intelligence) and simultaneously be underconfident in others (e.g., attractiveness; see Moore & Schatz, 2017). Given the myriad number of domains, there are therefore endless ways of measuring overconfidence.

One way of approaching this issue is to focus on a domain that seems relevant to the question at hand. In team contexts where there are real stakes involved (Staw, 2016), team members are particularly sensitive to the quality of leadership: Is the leader capable of leading the team, and does he or she lead the team well? Past research suggests that teams tend to perform poorly when leaders and team members diverge on their opinions about the quality of leadership in their team. Therefore, in this first study, I followed previous paradigms (Aarons et al., 2017; Benlian, 2014) and focus on the domain of *leadership ability*. Specifically, I gathered field data from 157 intact teams and had leaders tell me whether they think they are a good leader. Then, I contacted their followers and asked those followers whether they viewed their leader as a good leader. Finally, to measure team performance, I contacted external stakeholders and had them evaluate how well those teams were performing.

### **Sample and Procedure**

I gathered field data in partnership with a consulting firm specializing in team and leadership development. Over a three-year period, I collected cross-sectional data from a total of 1,230 individuals nested within 157 distinct teams representing 15 different organizations of various sizes across the United States in the industries of financial services, travel and leisure, public utilities, technology, telecommunications, health care, public schools, and other small not-

for-profit organizations. The average team size was 7.8 individuals (SD = 3.3), and the average number of stakeholders (internal and external customers) providing feedback on each team was 7.3 (SD = 7.8). These teams were intact because they had clearly defined boundaries and worked interdependently to achieve collective outcomes.

## **Measures**

**Self-ratings by the leader.** My partner consulting firm developed a set of 14 leadership statements using transformational leadership as a guide (Podsakoff, MacKenzie, Moorman, & Fetter, 1990; see Appendix A). The scale was reliable ( $\alpha = .79$ ). Example scale items were, “I make my team members feel valued and respected” and “I am very transparent on issues and decisions that impact the team”. As indicated in the Appendix, some items were accompanied by a 7-point Likert Scale (1 = *Strongly Disagree*, 7 = *Strongly Agree*), while other items were accompanied by a 5-point scale (1 = *Almost Never*, 5 = *Almost Always*). For ease of analysis and interpretation, I normalized the scales so that all responses made by leaders were on a 5-point scale.

**Evaluations of leadership by team members.** My partner consulting firm contacted all the members of each team and had them rate their team leader using the same exact set of 14 leadership statements (e.g., “Our leader makes me feel valued and respected”; “Our leader is transparent on issues and decisions that impact the team.”) The response rate was 95% and the scale was also reliable ( $\alpha = .91$ ). I also normalized the scales so that all ratings made by team members were on a 5-point scale.

**Team performance.** My partner consulting firm asked both team leaders and team members to nominate external stakeholders who could provide a reasonable assessment of the team’s performance. The consulting firm emphasized that external stakeholders must 1) “be a

customer of the results your team produces,” 2) “have the ability to influence your team’s reputation, resources, and development,” and 3) “be in a position to provide your team with valuable feedback based upon their knowledge and experience.” In total, 1,486 nominations were made.

The partner consulting firm contacted all nominated stakeholders, of which 1,143 responded (77%). These stakeholders received a link to an online questionnaire. They were asked to evaluate the team’s performance using two items developed from Hackman’s (1987) criteria for team effectiveness (see Appendix A) as well as three items that the consulting firm added because they were important to the external stakeholders. These attributes included goal alignment, communication, relationships, team results, and overall team ranking. Example items included: “This team’s goals are aligned with my expectations,” “This team achieves high quality results in a timely manner,” “Compared to other teams, this team ranks (scale ranging from below to above average)”. All items were measured on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), and showed internal consistency ( $\alpha = .89$ ).

**Control variables**<sup>1</sup>. Because gender (Schein, 2001) and team size (Brewer & Kramer, 1986) can influence follower perceptions of leadership, I ran robustness tests in which the gender of the leader and the team size were entered as control variables. These variables did not affect the results in a significant way in any of the models. Thus, for the sake of parsimony, I report the results without leader gender and team size as control variables below. Results from the robust models are available upon request.

### **Preliminary Analysis**

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<sup>1</sup> The ability to collect additional controls was not available due to the constraints placed upon me by the partner consulting organization’s need to limit the length of the survey instrument.

To justify data aggregation, I calculated within-group agreement indexes ( $r_{wg}$ ) (James, Demaree & Wolf, 1984) and intraclass correlation coefficients (ICC) (Bliese, 2000). The aggregation results demonstrated satisfactory within-group agreement for both the leadership team rating ( $mean\ r_{wg} = .80$ ), and team outcomes ( $mean\ r_{wg} = .81$ ). I then calculated ICC values using one-way analysis of variance. The results demonstrated significant ICC(1)s for both variables: for leadership team rating [ $F = 3.44, p < .001; ICC(1) = .28, ICC(2) = .71$ ]; for team outcomes [ $F = 3.7, p < .001; ICC(1) = .28, ICC(2) = .73$ ]. Significant ICC(1) values demonstrated greater variation between leaders than within the set of ratings of a given leader and their team.

## Main Results

Means, standard deviations, and correlation coefficients for all measures used in Study 1 are reported in Table 1.

----Insert Table 1 about here----

To test Hypothesis 1, I utilized response surface methodology (Edwards, 2002; Edwards & Parry, 1993; Shanock, Baran, Gentry, Pattison, & Heggstad, 2010), which is the recommended statistical strategy for analyzing questions pertaining to congruence and incongruence (Edwards, 1994). Before running any of my models, I followed recommendations to center leader self-ratings (X) and team ratings (Y) around the midpoint (Edwards, 1994; Shannock et al., 2010). After doing so, I regressed the outcome variable (team performance) on five terms:  $b_1$  leadership (self-rating),  $b_2$  leadership (team rating),  $b_3$  leadership<sup>2</sup> (self-rating),  $b_4$  leadership (self-rating) X leadership (team rating),  $b_5$  leadership<sup>2</sup> (team rating). This regression is represented in the equation below:

$$Z = b_0 + b_1X + b_2Y + b_3X^2 + b_4(XY) + b_5Y^2 + eZ$$

Support for Hypothesis 1 requires that the slope of the incongruence line be both negative and significant. As shown in Table 2, the slope along the incongruence line ( $X = -Y$ ) was negative and statistically significant (slope [ $b_1 - b_2$ ] =  $-01.36, p = .002$ ). Thus, Hypothesis 1 was supported. As can be seen in Figure 1, team performance is low when leaders overestimate their leadership ability (i.e., when their view of their leadership ability far exceeds what their members actually believe).

----Insert Table 2, and Figure 1 about here----

### **Study 1 Discussion**

Study 1 found that teams perform poorly when leaders are overconfident about their leadership ability. Specifically, I found that teams tended to do poorly when team leaders hold overly positive views of their leadership ability, beyond what their members actually believe. This study has at least two contributions: It provided an externally valid test of H1, using a sample of 157 intact teams across a diverse set of organizations, hierarchical levels, and team functions, as well as a robust sample of external stakeholders. Additionally, it documents a previously unexplored possibility that may help illuminate why firms tend to suffer when led by overconfident leaders. Specifically, this study suggests that when firms are led by overconfident leaders, they suffer not only because those leaders make risky and unwise executive decisions (e.g., suboptimal investments), but also because overconfident leaders affect how team members perform.

Although Study 1 offers a robust field test, it also has three important limitations. First, I gathered the leader and team outcomes data simultaneously giving rise to problems with common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Second, because I was not responsible for developing the survey items, the scales used for measuring leadership and



team performance, although internally consistent and face-valid, were not from previously validated scales. Third, the study did not address why team performance suffers when leaders are overconfident. I sought to address each of these limitations in the next three studies.

## **Study 2**

The goal of Study 2 was to understand why team performance suffers when leaders are overconfident. To achieve this goal, I recruited working adults and asked them what it is like to work with an overconfident leader. To gain a deep understanding of their subjective experiences, I employed the critical incident technique (CIT; Chell, 1998; Flanagan, 1954). I then systematically coded my participants' responses, which allowed me to gain a rich understanding of how individuals in teams respond to—and cope with—an overconfident leader.

### **Sample**

To accomplish my study goals, I sought to obtain a sample of working adults who have experience working in a team. To meet this goal, I recruited participants from Amazon Mechanical Turk (Buhrmester, Kwang, & Gosling, 2011) for a survey on workplace experiences. I made my survey available to only individuals who were employed and had a U.S Bachelor's degree. A total of 110 Mturkers completed my survey. The average age was 35 years and 50% were female, 79% were white, 9% African-American, 6% Asian, and 6% Hispanic. On average, they had 8.75 years of work experience. Participants were paid \$2 for participating.

### **Procedure**

After consenting to participate, participants read the following prompt:

*Sometimes team leaders can be overconfident in their abilities relative to others, or believe that they are better than others at something, even when they are not. For example, sometimes leaders believe they have the highest financial acumen on the team, even though they rank in the middle of the team in terms of their ability. Or, the leader might believe they are better at managing team performance than is objectively justified.*

I asked participants if they had experienced being a member of a team in which the team leader was overconfident. 18% of participants answered “no” and were automatically redirected to the end of the survey. The remaining participants (82%) indicated yes and were allowed to continue. On the next page of the survey, they were invited to think back to a time when they saw their team leader demonstrating overconfidence in his or her abilities. I then asked participants to write about that experience in an open-ended textbox. Specifically, I asked them to 1) describe the situation as vividly as they could; (2) describe as precisely as possible how their team responded to their leader’s overconfidence (3) reflect whether this incident positively contributed to their team’s overall effectiveness and performance (and if so, why); and (4) reflect whether this incident negatively contributed to their team’s overall effectiveness and performance (and if so, why). The presentation of the last two questions were randomized to reduce demand characteristics.

### **Preliminary Analysis**

I first sought to verify whether my participants followed my instructions. Eight participants did not write anything, and 20 participants wrote responses that were either too short or too vague to code (e.g., “The leader wanted to implement strict new rules”). I excluded these responses in my analysis, leaving a final sample of 82 participants. One participant provided two incidents; I counted only the first incident that he described.

To analyze these 82 separate incidents, I first coded each incident for the gender of the leader described by the participants. 66 % of the leaders were male, 20 % were female, and in 13 % of the cases the gender was unknown. Second, I developed categorical indicators to capture the type of overconfidence described by the participants (i.e., overestimation, overprecision, or overplacement). Third, I developed categorical codes to classify whether or not the incident had

an overall positive, negative, or neutral impact on the team's performance. Finally, I created categorical codes to capture the respondent's account of how the team responded to their overconfident leader (e.g., ignored the leader, developed a workaround).

I then trained two independent raters with no knowledge of the purpose of the study to ensure the validity of my coding scheme. I measured the level of inter-rater agreement using Cohen's kappa (1988). Inter-rater agreement was generally high (type of overconfidence = .65, effect of leader overconfidence on performance = .62, responses to overconfidence = .93). I resolved coding disagreements in a follow-up discussion amongst the coding team. Finally, I identified natural groupings and merged codes that seemed to share a high degree of conceptual overlap (Locke, 2001; Strauss & Corbin, 1998).

## **Main Results**

**Type of overconfidence.** The most common type of overconfidence described by participants was overestimation—when a leader had an exaggerated sense of her or his abilities, beyond what reality can justify. This occurred in 73% of the descriptions. I note all quotations with individual identifiers [in brackets] throughout the findings and in Table 3. For example:

*The leader thought that he understood the various aspects of the technology a lot better than he actually did. As a result, he promised the client something that isn't technically feasible and if it were would be extremely insecure. [8]*

Overprecision was described in 18% of the responses and generally referred to the excessive confidence or certainty of a leader. For example:

*On my work team for online booksales my boss (owner) was sure that a recent book bulk buy would sell. He was sure that he had a buyer so he had us read and catalog most of the new collection. [74]*

Finally, only 8% of the descriptions described overplacement. These narratives tended to reference incidents when the leader displayed an exaggerated sense that he or she is better than

others. For example:

*He thought that he was seriously the best thing since sliced bread and that he could do no wrong. In fact, he was a terrible manager. Not one employee at the store liked him or wanted to work at the same time that he was working. [10]*

**Team responses to leader overconfidence.** The themes that emerged from my analysis aggregated into two primary categories: withdrawing from the leader and coping with the leader. Table 3 provides representative quotations from team members supporting the second-order themes I identified throughout my analysis.

----Insert Table 3 about here----

**Withdrawing responses.** These behavioral responses captured 37% of total team behaviors. One way that individuals withdrew was to disengage from the situation, as evidenced by the following quotes:

*We basically shut down and didn't do anything. It sounds bad, but we didn't do anything. [3]*

*The team withdrew. Everyone went on their own and did their assigned duties. No one went beyond their assignments, no one tried to improve on anything or preemptively fix potential issues. It was a depressing team to work in. [9]*

Ignoring the leader was another common response from team members as we see below:

*We tried to ignore him as much as possible. We didn't want to interact with him because he was always so sure of himself and making awful jokes that only he would laugh at. The morale around the shop definitely suffered. [10]*

Finally, team members also withdrew by passively complying with the leader's requests:

*The team had not much say in the decisions as the team leader was not open to our ideas. we felt it was unfair but since he was overconfident about his abilities, and him being senior in the organization, it left us with no choice but to follow his directions. [38]*

**Coping responses.** These responses captured 44% of the total team behaviors in which team members report coping with their leader's overconfidence through gossiping about the

leader, working around the leader, demonstrating negative emotions or confronting the leader.

Gossiping outside of the leader's presence, making fun of him or her, and withholding

information was a frequent occurrence as detailed in the example below:

*We were baffled, for the most part, and talked about her/complained behind her back. Even people who were generally so nice and sweet. There was some effort to at least note that the decisions should have been made as a group, and in one case we had to create a vote to undo a decision she'd made. Other than that, we just didn't tell her a lot of the things we were doing. [53]*

Working around the leader was another coping strategy. Often, this occurred when there was a consensus among members that they did not want their team to fail, as narrated below:

*We did our best at the time to relegate duties amongst ourselves which were quite different than what she had done. For example, I was better at crunching numbers and my fellow co-worker was better at handling the marketing / language part of the assignment. She had not taken the trouble to assign tasks to us based on our strengths. So we did that in order to make sure all of us delivered our best efforts. [64]*

Finally, some respondents indicated that their team directly confronted the leader about his or her overconfidence:

*We fought back! We kept saying that yes, we want to be a one plus school, but we had to be realistic. It would take years to change our ratings. We did what we could and continue to improve. [35]*

**Overall team performance effect.** Most participants (78%) indicated that their team's performance suffered when their leader was overconfident. (*"Yes, it was definitely negative. The team had communication issues. In the end our score suffered because of the incident."* [5]).

Interestingly, a smaller group of participants (12%) believed that having an overconfident leader created a *positive* effect on their team's performance. In these instances, this occurred because they believed that their leader's overconfidence made the team more cohesive (*"If anything, it made our team stronger because we had to put aside any differences we had in order to get the work done because our team leader was going to be of no help. [81]"*). Finally, a small group of

participants (10%) were ambivalent: They described their leader as having both positive and negative effects on their team performance.

## **Study 2 Discussion**

Study 2 reveals at least four important findings. First, when asked to spontaneously generate examples of a leader behaving overconfidently, participants most frequently described instances of overestimation. This suggests that team members most often recognize overconfidence when leaders display an exaggerated sense of their ability, beyond what reality can justify. Second, I found that having an overconfident leader was a negative experience for a large majority of participants, who described their experiences as “depressing” or “unfair.” Third, I found that when leaders were overconfident, it affected the dynamics of teams in a substantial way. Most team members reported behaving negatively in response to an overconfident leader: They shut down, withdrew, gossiped, and ignored their leader. Although there were some cases in which team members had a proactive response when they had an overconfident leader, I found that this was the exception and that the predominant response was to avoid and withdraw from the leader altogether. It is interesting to note that these types of behavioral responses are consistent with the effects found from verbally aggressive (Nifadkar, Tsui, & Ashforth, 2012) and abusive (Tepper, 2000) supervisors. Finally, I found that most participants recalled that their team performed sub-optimally when they had an overconfident leader. This finding is consistent with the results of Study 1 and provides additional support for H1.

Overall, these findings provide preliminary support for my theoretical model and generate rich insights into individuals’ experiences when they work in teams with an overconfident leader. It is easy to see from the excerpts that there are substantial hardships when

team members have to work with an overconfident leader and that such hardships can affect how the team functions. For example, some participants indicated that their team had to work extra hard to keep their team functioning; others indicated that they sought to confront the leader about the situation. Individuals also reported that their teams spent a substantial amount of time gossiping negatively about their leader, and that when their team leader was present, engagement was minimal. In sum, these excerpts support my view that organizations suffer when leaders are overconfident, not only because those leaders make risky and unwise executive judgments as previous research would suggest, but also because leader overconfidence undermines social processes in teams which in turn inhibits those teams from working effectively.

One question that arises is whether the participants in this study were reacting negatively to an *overconfident leader* (i.e., someone with an overly positive perception of himself, beyond what reality can justify), a *truly incompetent leader* (i.e., someone who is, in fact, incapable of doing his job), or both. The way I designed this study does not allow me to answer this question, creating some degree of interpretational ambiguity. Study 3 seeks to resolve this limitation and aims to provide more definitive evidence that individuals feel disinclined to interact with *overconfident* leaders.

### **Study 3**

In Study 3, I recruited working adults and conducted a quasi-experimental study in which I manipulated confidence and competence simultaneously. I expected that when leaders display confidence that exceeds their actual competence, team members would feel disinclined to interact with that leader, as I posit in Hypothesis 2.

### **Sample**

To accomplish my study goals, I again sought to obtain a sample of working adults. To meet this goal, I recruited participants from Amazon Mechanical Turk for a study on workplace experiences. I made my survey available only to individuals who were employed. A total of 275 Mturkers completed my survey. The average age was 36 years and 58% were male, 61% were white, 9% African-American, 26% Asian, 1% Native American, and 1% Other. Participants were paid \$1 for participating.

### **Design and Procedure**

----Insert Table 4 about here----

Study 3 used a 2 (Confidence: high vs. low) X 2 (Competence: high vs. low) between-subjects design (see Table 4). After consenting to participate, participants were randomly assigned to one of four conditions. In the *high-confidence/high-competence* condition, participants were first asked whether they had been a member of a team where their leader was both highly confident and highly competent. To reduce ambiguity, I clarified these terms to my participants: “By this, we mean somebody who was truly knowledgeable, skilled, and smart, and was very confident in their abilities.” If they answered “yes”, the next page of the survey asked participants to describe what that experience was like. If they answered “no”, participants were automatically redirected to the end of the survey and thanked for their time.

The procedure was the same for the three other conditions. In the *high-confidence/low-competence* condition, participants were first asked whether they had been a member of a team where their leader was highly confident but not very competent. In the *low-confidence/high-competence* condition, participants were first asked whether they had been a member of a team where their leader was not very competent but highly confident. In the *low-confidence/low-competence* condition, participants were first asked whether they had been a member of a team



where their leader was neither competent nor confident. Participants who indicated yes were asked on the next page of the survey to describe their experiences, whereas those who indicated “no” were redirected to the end of the survey.

After writing their narratives, participants answered my quantitative measure of interaction avoidance, using a three-item measure ( $\alpha = .94$ ) adapted from Nifadkar and colleagues (2012): (1) “I didn’t speak with this leader unless absolutely necessary”, (2) “I avoided initiating contact with this leader”, (3) “As far as possible, I didn’t ask for help or information from this leader” (1 = *strongly disagree*, 7 = *strongly agree*).

## Results

40 participants did not have experience working with the type of leader described in their assigned condition ( $n_{\text{high confidence/high competence}} = 11$ ,  $n_{\text{high confidence/low competence}} = 5$ ,  $n_{\text{low confidence/high competence}} = 15$ ,  $n_{\text{low confidence/low competence}} = 10$ ). A chi-square test indicated that this did not significantly vary by condition, ( $\chi^2 = 4.95$ ,  $df = 3$ ,  $p = .18$ ). Furthermore, I excluded one participant who failed to complete the open-ended questions and dependent variable. Thus, my final sample included 234 participants. Overall, 51% of the leaders identified by participants were male, 18% were female, and 32% were unknown. A chi-square test indicated that the gender of the leader did not significantly vary by condition, ( $\chi^2 = 3.65$ ,  $df = 6$ ,  $p = .72$ ).

To test Hypothesis 2, I regressed interaction avoidance on competence (contrast-coded: -1 = low, +1 = high), confidence (contrast-coded: -1 = low, +1 = high), and their interaction (Aiken & West, 1991). There was a significant main effect for competence,  $b = -.91$ ,  $t(230) = -8.54$ ,  $p < .001$ , but not confidence,  $b = .04$ ,  $t(230) = .34$ ,  $p = .73$ . This indicates that participants, in general, tended to avoid leaders who were not very competent. More importantly, as predicted, there was a significant interaction between confidence and competence,  $b = -.26$ ,  $t(230) = 1.41$ ,

$p = .01$ . Figure 2 depicts this interaction. As can be seen in Figure 2, when employees believed that their leader was *competent*, they approached highly confident ( $M = 2.69, SD = 1.69$ ) and less confident leaders similarly ( $M = 3.14, SD = 1.65$ ),  $b = -.45, t(230) = 1.45, p = .15$ . However, when employees believed that their leader was *not competent*, employees were significantly more likely to avoid their leader when their leader demonstrated high ( $M = 5.03, SD = 1.62$ ) versus low levels of confidence ( $M = 4.43, SD = 1.54$ ),  $b = .59, t(230) = 2.04, p = .04$ . In other words, employees tended to avoid their leader when their leader showed confidence that exceeded his or her actual competence, providing support for Hypothesis 2. In fact, a planned contrast (high confidence/low competence = +3, all other conditions = -1) revealed that individuals were most motivated to avoid an overconfident leader compared to all other types of leaders,  $b = .39, t(232) = 6.13, p < .001$ . Furthermore, I found that all these effects remained robust, even when I controlled for the participant's age, gender, ethnic status as well as the gender of the leader described by the participants.<sup>2</sup>

----Insert Figure 2 about here----

## Discussion

Study 3 revealed several findings. First, I found that individuals reported avoiding leaders who were generally not very competent. More importantly, I found, as predicted, that employees also tended to avoid their leader when their leader showed confidence that exceeded his or her actual competence, supporting Hypothesis 2. In fact, they reported avoiding this type of leader the most. Although these results are correlational and based on a method that is susceptible to

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<sup>2</sup> When I controlled for the participant's age, gender, ethnic status, and the leader's gender, the Competence x Confidence interaction remained robust,  $b = -.25, t(226) = -2.39, p = .02$ , and the simple effect of confidence in the low-competence condition also continued to remain robust,  $b = .58, t(226) = 2.00, p = .047$ . Furthermore, the planned contrast comparing the overconfident condition (i.e., the high confidence/low competence condition) to the three other conditions was also robust, even after controlling for the participant's gender, age, and ethnic status,  $b = .40, t(228) = 6.29, p < .001$ .

retrospective recall biases (Sedgwick, 2014), they nevertheless are consistent with my qualitative study and provide additional evidence that individuals seek to avoid working with an overconfident leader.

#### **Study 4**

Thus far, I now have consistent but preliminary evidence suggesting that team members dislike interacting with overconfident leaders (Studies 2 and 3); that they are particularly motivated to avoid these types of leaders (Study 3); and that when leaders are overconfident, they affect the dynamics of team members in a substantial way (Studies 2 and 3), which ultimately causes teams to perform poorly (Studies 1, 2, and 3). In Study 4, I sought to test these relationships simultaneously, as described in my theoretical model. Specifically, I test the idea that when leaders are overconfident, team members might feel demotivated to interact with their leader, which in turn, would negatively impact the ability of teams to learn from each other, ultimately resulting in lower performance. I test this full theoretical model using a longitudinal study of 291 individuals nested within 55, first-year MBA student teams.

#### **Sample and Procedure**

I employed a longitudinal survey design collecting data over the course of an 8-week quarter in three waves from 291 individuals nested within 55 first year MBA student teams at a mid-Atlantic university. I employed a multi-phase survey design coupled with the randomization of questions to reduce common method bias (Podsakoff et al., 2003). The average age of participants was 28 years, and 39% were female, 55% were white, 6% African-American, 8% Asian, and 4% Hispanic. Average participation across all three survey waves was 84%.

At Time 1 (week 2), I collected my independent variable leader overconfidence. At Time 2 (week 5), I collected my first process variable, interaction avoidance. Then at Time 3, (week 7)

I collected my second process variable, team learning behaviors. Finally, upon completion of the quarter I obtained the dependent variable of course grades for all participants.

## Measures

**Leader overconfidence.** The purpose of the MBA student teams is to review the assigned course materials, discuss them in their team sessions, and then, as a team, determine the best course of action. On these student teams, there is no formally designated leader. As a result, students are strongly expected to rotate leadership according to their individual expertise and in order to share the workload. Thus, at multiple times, each student team member is considered a leader. Therefore, I measure leadership overconfidence by assessing the overconfidence of each individual on the team.

I used Anderson and colleagues (2008) measure of status to gauge overconfident leadership on the team.<sup>3</sup> This status scale consists of three items which captured whether each team member: (1) had influence over the group, (2) participated in the task, and (3) made valuable contributions to the group (self-rated status  $\alpha = .76$  and peer-rated status  $\alpha = .82$ ). I collected round-robin ratings where each team member rated themselves and their team members on these three questions. Then, following the Social Relations Model (SRM; Kenny, 1994; Kenny & La Voie, 1984), I calculated a self-enhancement index (Kwan, John, Kenny, Bond, & Robins, 2004) in R version 3.3.2 using the Triple R package (Schönbrodt, Back, & Schmukle, 2012). Finally, I aggregated this individual measure to the team level by summing the total amount of leader overconfidence on the team.

**Interaction avoidance.** I adapted the interaction avoidance scale used in Study 3 for use

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<sup>3</sup> In groups, status correlates highly with leadership, as well as with respect and influence, and these components can be understood as one overarching construct (e.g., Anderson et al., 2001; Anderson & Kilduff, 2009; Bales et al., 1951; Berger, Rosenholtz, & Zelditch, 1980; Blau, 1964; Ridgeway, 1987).

with my student team sample (Nifadkar et al., 2012). This scale included three items: (1) I didn't speak with members of my team unless absolutely necessary, (2) I avoided initiating contact with members of my team, (3) As far as possible, I didn't ask for help or information from members of my team. I measured all items on a 7-point scale ranging from Never to Always ( $\alpha = .73$ ). Finally, I aggregated this measure to the team level to calculate a team's average interaction avoidance.

**Team learning.** I adapted Van Der Veegt and Bunderson's (2005) team learning behaviors scale to capture learning behaviors on the team. This scale included three items: My team members (1) criticized each other's ideas, (2) freely challenged the assumptions underlying each other's ideas, and (3) utilized different opinions for the sake of obtaining the best outcome. I measured all items on a 7-point scale ranging from Strongly Disagree to Strongly Agree ( $\alpha = .63$ ). Finally, I aggregated this measure to the team level to calculate a team's average team learning behaviors.

**Team performance.** I collected individual grades at the end of the quarter from each team member as my dependent variable. I aggregated this measure to the team level to calculate a team's average performance.

**Controls.** I controlled for individual GMAT scores, extraversion, and neuroticism. Meta-analyses have shown positive correlations between GMAT and student grade performance (Kuncel, Credé, & Thomas, 2007). I included extraversion and neuroticism because scholars have associated both personality traits with overconfidence (Schaefer, Williams, Goodie, & Campbell, 2004) and the achievement of status (Anderson, John, Keltner, & Kring, 2001). I ran all my statistical models with the controls and they did not affect the results in a significant way in any of my models. I report the results without controls; results including controls are available

upon request.

## Data Aggregation

I operationalized all team variables using an additive group composition model (Chan, 1998) for two primary reasons. First, I theorized that it was possible to have greater within group variation than between group variation.<sup>4</sup> Second, I posited that there is a functional relationship between individual learning and avoidance behaviors at the team level.<sup>5</sup> As a result of following my theorizing (Klein, & Kozlowski, 2000), I aggregated leadership overconfidence as the sum of the total amount of overconfidence on the team. I calculated interaction avoidance and team learning using the mean of the team's avoidance and learning behaviors. Similarly, I calculated my dependent variable, team performance, as the team's average grade.

## Results

I summarize measure correlations in Table 5.

----Insert Table 5 Here----

To test my hypotheses, I analyzed my data using the PROCESS macro, Model 6 (Hayes, 2013). Results are visualized in Figure 3. Supporting Hypothesis 1, I found that leader overconfidence at Time 1 negatively predicted team performance at Time 4,  $b = -.11$ ,  $t(51) = -3.45$ ,  $p = .001$ . Furthermore, leader overconfidence at Time 1 positively predicted interaction avoidance at Time 2,  $b = .22$ ,  $t(53) = 2.82$ ,  $p = .007$ , supporting Hypothesis 2. Interaction avoidance, in turn, negatively predicted team learning behaviors,  $b = -.31$ ,  $t(52) = -2.15$ ,  $p =$

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<sup>4</sup> For example, when there is greater dispersion on the team, (i.e., a mix of over and underconfident leaders) it is likely that both avoidance and team learning behaviors would also greatly vary within the group. Thus, greater within group variation of leaders could potentially drive larger within group variation for avoidance and learning. This contrasts with teams that have one formal leader where all team members are rating the same focal leader.

<sup>5</sup> When choosing an additive group composition model, there should be a functional relationship between the individual and team measures where “the meaning of the higher-level construct is a summation of the lower level units regardless of the variance among these units.” (Chan, 1998: 236).

.036, supporting Hypothesis 3, and team learning behaviors, in turn, positively predicted team performance,  $b = .15$ ,  $t(51) = 3.24$ ,  $p = .002$ , consistent with H4. Finally, I tested the two-stage indirect effect predicted in Hypothesis 5, using 5,000 bootstrapped samples. The confidence intervals excluded zero,  $95\% CI = [-.028 \text{ to } -.001]$ , indicating a significant indirect effect in support of Hypothesis 5: teams with more overconfident leaders had greater amounts of interaction avoidance behaviors, which resulted in fewer team learning behaviors and ultimately lower overall performance.

----Insert Table 5, Figure 3 about here----

## **Discussion**

Study 4 demonstrates that differences in leadership overconfidence were associated with differences in interaction avoidance, which in turn, were associated with lower team learning, and ultimately, lower team performance. Moreover, lending strength to these findings, Study 4 utilized an external performance measure that was consistent across all teams rather than subjective team performance ratings. Whereas these results are correlational and prevent me from claiming direct causality, they offer strong support – consistent with my previous studies – that overconfident leaders negatively affect a team’s social processes resulting in decreased team performance.

The operationalization of leadership in Study 4 assumes that leadership is being shared amongst team members. If one agrees with this assumption, then I am capturing a dynamic process of influence as team members share leadership responsibilities across the group as they complete assigned tasks and offer their expertise on important topics to facilitate the process of learning. Indeed, much extant research supports this type of dynamic leadership process (e.g., DeRue & Ashford, 2010; Quinn, 1996). One possible critique of this study design, however, is

that shared leadership is not occurring, and the absence of a formally designated leader suggests I am capturing a different group process. Thus, if one disagrees with the assumption of shared leadership, a more apt label for my independent variable is overconfidence rather than leader overconfidence. Future work should further explore the differences and effects of shared vs. formal leadership on teams as it relates to overconfidence.

Another potential critique of my leadership overconfidence measure is the operationalization of leadership as status, whereby individuals on the team exert influence, participate in tasks, and contribute to the team. This measure (Anderson et al., 2008) was selected to capture the dynamic process of influence and interaction on teams, and because there was no formally designated leader. Whereas this status measure is highly correlated with other measures of leadership (e.g., Anderson et al., 2001; Anderson & Kilduff, 2009), it is possible that I am not capturing core consideration and initiating structure leadership behaviors (Judge, Piccolo, & Ilies, 2004) typically associated with the presence of a formally designated leader. Future work should explore broader definitions of leadership and the effects of these overconfident leaders on team processes and performance.

And finally, an argument can be made that grades are not indicative of team performance. Ultimately, an individual completes a test and engages in classroom discussion alone and their final grade is based upon her or his solitary efforts. In contrast, I argue that the effectiveness of the learning that occurs on a team can either enhance or diminish an individual's ability to achieve a good grade. For example, if a student feels more prepared based upon team learning, he is more likely to participate in classroom discussion. And, if a student gleans important knowledge that is not in her area of expertise from a fellow team member, she is more likely to be successful on an exam. Moreover, in this context, the use of individual grades represents the



most objective measure of performance captured outside of the team. This being said, it is possible that grades are not truly indicative of team performance and additional team-centric, performance outcomes should be measured. I explore the effects of overconfident leaders on additional team performance outcomes in the next section.

### **Additional Analyses**

I conducted additional analyses across three main areas to further assess the robustness of my findings. First, I explored if the gender composition on the student teams had any significant effects on my outcome measures. Second, to begin to address the critique that my leader overconfidence measure is not capturing core leadership behaviors, I reduced my leadership overconfidence measure to focus on leader influence. Finally, I analyzed the effects of leader overconfidence on different team performance outcomes to determine if the results are consistent with using grades as a measure of team performance.

**Gender.** The student teams were intentionally designed to balance the number of men and women across all of the teams. The average number of women on a six-person team was 2.3 with a range of 1 to 3. Thus, I did not expect that gender would significantly affect my performance outcomes. However, due to the male dominated norms in business, it is important to explore the effects of gender on my outcome measures as well as my leader overconfidence measure.

Gender (measured both as a mean and as the count per team, see Appendix B) is not significantly correlated with any of the outcome variables, including: team performance (grades), team satisfaction, team performance (team-rated), and team effort. Gender, however, was significantly correlated with team learning  $r = -.43, p < .01$ , as well as with leader overconfidence  $r = .49, p < .01$ , and leader influence  $r = .35, p < .05$ . Thus, as gender on the

team becomes more female, the amount of leader overconfidence on the team increases. As a result of these significant correlations, I examined gender as a control in my full theoretical model both as a mean, and as a count variable. I tested the two-stage indirect effect predicted in Hypothesis 5, using 5,000 bootstrapped samples controlling for gmat, extraversion, neuroticism, and gender. The confidence intervals included zero controlling for gender as a mean  $95\% CI = [-.020 to .000]$  or as a count variable  $95\% CI = [-.019 to .000]$ . Though gender accounted for a significant part of the variance in my findings, the pattern of results is consistent with my previous analysis.

----Insert Table 6 about here----

**Leader influence.** I reduced my leader overconfidence measure to one item in order to isolate the effects of leader influence in my theoretical model. I did this to remove the potential confounding effects contained in my initial leadership overconfidence measure, which included participating in the task and contributing to the team. I found that my one-item leader status measure was highly correlated with my initial leader overconfidence measure  $r = .77, p < .01$ , suggesting that both measures are capturing the same phenomenon. Next, I tested the two-stage indirect effect predicted in Hypothesis 5, using 5,000 bootstrapped samples. The confidence intervals included zero  $95\% CI = [-.013 to .000]$ , suggesting again, a similar pattern of results yet weaker than when using the full 3-item overconfidence measure.

**Different performance outcomes.** Finally, I explored the effects of leader overconfidence on additional team performance outcomes to include: team effort, team performance (team-rated), and team satisfaction. Correlations of these variables are listed in Appendix B. I tested the two-stage indirect effect predicted in Hypothesis 5, using 5,000 bootstrapped samples on team effort  $95\% CI = [-.07 to .000]$ , team satisfaction  $95\% CI = [-.054$

to .001], and team performance (team-rated) 95% CI = [-.074 to .005]. Taken together, while these results did not achieve statistical significance, they suggest a pattern that is similar to my initial findings.

## **General Discussion**

Why do organizations suffer when they are led by overconfident leaders? Past research has answered this question by primarily focusing on whether overconfident leaders are capable of making wise, strategic, and thoughtful decisions for their firm (Meikle et al., 2016; van Zant & Moore, 2013). By contrast, I explored another angle that may help answer this important question: I suggest that overconfident leaders can also undermine collective performance by affecting the social processes in teams. Across four studies, I found that when team members believe that leaders are overconfident, they seek to avoid these leaders (Studies 2, 3, and 4), which in turn, creates a culture that inhibits optimal team learning (Studies 2 and 4), and ultimately, team performance (Studies 1 and 4). Thus, overconfident leaders undermine performance not only by making unwise executive decisions as previous research would suggest, but also by affecting the psychology of the people that they work with and the social processes in teams.

## **Theoretical Implications**

**Contributions to the Overconfidence Literature.** My findings have at least two importation implications for the literature on overconfidence in organizations. First, they expand understanding of how overconfident leaders affect teams. The dominant perspective on this topic has primarily used theories from the judgment and decision-making literature to explain how overconfident leaders create negative organizational outcomes (e.g., Meikle et al., 2016; van Zant & Moore, 2013). For example, in a study of U.S. Banks from 1994 to 2009, Ho and

colleagues (2016) found that overconfident CEOs were more likely to make value-destroying decisions and to take unnecessary risks compared to their well-calibrated counterparts. As a result, banks led by more (vs. less) overconfident individuals were more likely to have lower operating performance, lower stock returns, and higher loan defaults (Ho et al., 2016). These findings underscore the powerful effects of overconfidence on judgment and decision-making (Plous, 1993). By contrast, my studies use a social-psychological lens to explain why organizations tend to suffer when they are led by overconfident CEOs. Here, I theorize and demonstrate that overconfident leaders can also alter the social processes of their teams, which in turn, damages their teams' ability to perform effectively.

Second, my study provides a more nuanced understanding of the interpersonal effects of overconfidence (e.g., Anderson et al., 2012; Kennedy et al., 2013). Although the majority of studies find that overconfidence leads to poor judgment and decision-making, recent research has found that overconfidence can also confer interpersonal advantages. For example, a growing body of research has found that overconfidence can help individuals gain status in groups by appearing more competent to others (Anderson et al., 2012; Kennedy et al., 2013; Tenney et al., 2018). However, much of this existing research has primarily focused on contexts where members have limited opportunities to observe others and the degree of interdependence is not that high. By investigating highly interdependent contexts where people interact with others to perform actual tasks (e.g., teams), my findings raise the possibility that followers may revise their initial expectations as they get to know one another (Bendersky & Shah, 2013).

Specifically, my findings suggest that although people grant status and respect to overconfident individuals during initial stages of early group formation, they may also lose their respect for these overconfident individuals once they discover that those overconfident individuals are not

necessarily qualified to lead as they were initially expected (Bendersky & Shah, 2013; Tenney et al., 2018). Thus, on balance with previous findings in the literature, the current evidence seems to suggest that overconfidence can be good for individuals, in the sense that overconfidence can help individuals gain status initially, but that over time, overconfidence can also be detrimental, in the sense that those who emerge as leaders run the risk of losing the respect that their followers have granted them, once it is discovered that they are miscalibrated.

**Contributions to the Team Learning Literature.** My findings also contribute to the literature on team learning (Edmondson et al., 2007). Prior research has found that leaders play an important role in shaping a team's learning climate. For example, scholars have found that team leaders play a critical role in shaping psychological safety (Edmondson, 1999), power differences (Brooks, 1994) and engagement (Sarin & McDermott, 2003) in teams. Yet, to my knowledge, no research has directly explored how leader overconfidence can affect team learning. My findings suggest that overconfident leaders act as a deterrent to a positive learning climate by increasing avoidance behaviors among their team members, which in turn, adversely impacts the process of learning and the knowledge available to the team. Moreover, in Study 4, I add to the literature on team learning by exploring these relationships within a specific context – that of teams designed with the specific goal of learning. Future empirical work should explore different team and task types to determine if similar relationships exist.

**Contributions to Emotions Literature.** I also contribute to emotion as feedback system theory (Baumeister et al., 2007) by demonstrating that individual behavioral responses can shape the collective climate. If employees miss or show up late to a team meeting because they wish to avoid interacting with an overconfident leader, their attempt to avoid their leader will ultimately impact the behaviors of the team as a whole. Teams lose valuable knowledge and perspectives

from absent team members and end up working harder to compensate for their absence. Future work can more specifically explore the role that specific emotions can have on future behaviors. For example, does the experience of anger, as compared to anxiety, result in a team member challenging a leader rather than avoiding her (Carver & Harmon-Jones, 2009)?

### **Practical Implications**

Given the importance of how team members learn from each other in contemporary organizations, these findings have practical implications for organizations, leaders, and teams. Specifically, these findings raise the question of what organizations should do to mitigate the effects of overconfident leaders. Below, I explain three ways to approach this problem.

First, organizations can intervene at the selection level. Past research has demonstrated that overconfident individuals are more likely to emerge as leaders because outside observers frequently construe confidence as a sign of competence (Anderson et al., 2012; Kennedy et al., 2013; Tenney et al., 2018). As a result, leadership selection processes are likely to bias their selection toward overconfident individuals. Thus, one approach organizations can pursue to mitigate the negative effects of overconfident leaders on others is to prevent them from gaining status in the first place. To achieve this, selection processes in organizations should include mechanisms that assess overconfidence. This can take at least two forms. First, organizations can use peer feedback and assessment. Research suggests that rather than asking individuals whether they are good leaders, it might be more effective to ask their peers instead (e.g., Bass & Yammarino, 1991; Dunning et al., 2004) and to compare how widely those peer assessments diverge from people's own self-assessments. Second, organizations should have mechanisms for locating true expertise. Research suggests that the use of structured interviews and decision aids is significantly more effective than unstructured interviews which are highly susceptible to

individual biases (e.g., Barrick, Shaffer, & DeGrassi, 2009; Van der Zee, Bakker, & Bakker, 2002). Thus, if an individual makes a claim that they are exceptionally skilled at accounting, there should be mechanisms and decision aids in place to verify the accuracy of this claim.

Second, organizations can also intervene at the leader level to manage the potential social costs of leader overconfidence. My work implies that it is very important for organizations to build self-awareness into their leadership development programs. Research suggests that self-awareness can be developed through the use of 360-degree feedback tools and by integrating metacognitive ability exercises (e.g., reflection, debriefing, coaching) into leadership development programs. Leaders develop their metacognitive ability or “second-order thinking” (Hannah & Avolio, 2010, p. 1184) when they have opportunities to reflect on how well they understand something and on how they can best gain new knowledge or skills. To date, leadership development has rarely focused on developing metacognitive ability (Black, Soto, & Spurlin, 2016).

Finally, practitioners can also intervene at the follower level. Sometimes followers will have no choice but to interact with an overconfident leader. And, the risk of a team having a series of negative interactions with an overconfident leader could result in a negative emotional spiral whereby performance gets continually worse (Lindsley, Brass, & Thomas, 1995). Thus, practitioners should consider investing in development and coaching to whole teams, rather than exclusively focusing on leaders. This can occur by assigning a team an external advisor or coach (Morgeson, DeRue, & Karam, 2010) who interacts with the team and guides them through development experiences. For example, an external coach can help the team develop norms to be self-sustaining and functional even in the absence formal leadership.

## **Limitations and Directions for Future Research**

This research has several important limitations that point to potentially fruitful areas for future research. First, my studies employed different operationalizations of leadership (formal and informal) leaving open the possibility for alternative explanations. For example, it is possible that operationalizing leadership as informal and rotating across the team in Study 4, measured team overconfidence rather than leader overconfidence. Even though I assessed overconfidence early in the team's lifecycle, it is possible that overconfidence was contagious and could have spread to others resulting in a group, rather than an individual-level property.

Second, the additional analyses I conducted in Study 4 limit the overall robustness of my findings. Whereas I did not theorize that a team's gender composition was an important control variable, when controlling for this variable, my overall theoretical model yielded non-significant results – albeit with a similar pattern. Similarly, employing a more constrained operationalization of leader overconfidence and assessing different team performance outcomes demonstrated a similar trend in results, yet these models also failed to achieve statistical significance. Thus, the robustness of the results in Study 4 is currently limited to the specific operationalizations of leader overconfidence, control variables, and team outcomes that I employed. And finally, my results relied upon an extensive use of field data and, as a result, I cannot claim clear causal relationships between overconfident leaders, team processes, and team performance.

These limitations highlight multiple areas for future inquiry. First, scholars should more specifically explore the potential interaction between overconfident leaders and gender. For example, it is possible that team members might engage in more avoidance behaviors if the gender of the leader is male as compared to female. Second, it is also likely that there is a difference between the effects of overconfidence on teams where leadership is shared, as



compared to teams with a formal leader. For example, on teams where team members engage in both individual work as well as influence behaviors, we might learn that overconfidence as a leader, vs. individual contributor, can have varying effects on team processes and outcomes. Third, scholars should continue to explore the effects of overconfident leaders on different types of interdependent, team performance outcomes. These could include quantity, quality, and efficiency outputs that require the inputs and participation of everyone on the team. And finally, where possible, these results should be replicated in a more controlled laboratory setting to establish causality.

Further empirical investigation into the social consequences of overconfidence can also explore other team processes and emergent states as well as variations in team types and task orientations. Moreover, broadening our understanding of how overconfidence affects specific team processes and types of teams can also help researchers discover conditions and tasks where overconfidence might have a positive effect on teams. For example, scholars have demonstrated that the arrival of an overconfident CEO can sometimes lead to increases in a firm's innovation (Engelen, Neumann, & Schwens, 2015; Galasso & Simcoe, 2011). As a result, teams with a creative focus could potentially benefit from an overconfident leader if she nudges the team to consider riskier and bolder ideas.

## **Conclusion**

My results suggest that highly effective teams might not be able to sustain their performance if an overconfident leader assumes responsibility for leading them. The emergence of avoidance behaviors from team members may begin to indirectly undermine the conditions necessary for effective teamwork. Similarly, Rex Ryan's defensive team got considerably worse after he took over as head coach. It is doubtful that the defense wanted to perform worse, but the

interaction between an overconfident leader and his team might have ultimately led to this outcome.

## CHAPTER 3

### FUTURE DIRECTIONS

There are several promising future directions that directly emerge from this dissertation as well as expand from these findings to further explore the social consequences of overconfidence. First, there is a need to build our understanding of how to best measure leader overconfidence. Leadership ability, and influence, is inherently a subjective phenomenon which does not easily lend itself to objective measures (Atwater & Yammarino, 1997; Fleenor, Smither, Atwater, Braddy, & Sturm, 2010). Therefore, understanding the most effective approaches for measuring this phenomenon can aid researchers in studying the social consequences of overconfident leaders and provide practitioners with additional approaches for managing its consequences in their organizations. Therefore, I propose comparing and contrasting different operationalizations of leader overconfidence in order to find the most effective means for studying this in organizations. Next, my findings demonstrate that followers of an overconfident leader are more likely to avoid their leader. Thus, I believe it is important to explore how follower avoidance behaviors affect team leaders. Third, there are additional team effects that should be studied beyond interaction avoidance and team learning. For example, it is likely that an overconfident leader affects other specific team processes such as goal setting. In addition, an overconfident leader might positively contribute to a team's cohesiveness as they share their painful experiences from working with their leader. And finally, there are important organizational effects that can further our understanding of the social consequences of overconfidence. These include how organizational members, beyond a leader's followers, attribute an overconfident leader's causality in creating team outcomes. These types of attributions can affect a leader's potential in the organization. The final organizational effect

would entail exploring how overconfident individuals build and mobilize their social networks to attain status. This can affect how leaders move within and between organizations. I summarize each area first starting at the measurement level, expanding to leader and team effects, then broaden outward to the organizational context.

### **Overconfidence Operationalizations and Comparisons**

What is the best approach for operationalizing leader overconfidence? How do different operationalizations of leader overconfidence (i.e., overestimation and overplacement) compare with one another? Scholars have studied the construct of overconfidence using different operationalizations ranging from objective to subjective. Objective operationalizations utilize an objective standard (e.g., a math test with verifiable answers) whereas subjective operationalizations utilize a comparative standard (e.g., the difference between self and others' perceptions on extraversion) due to a lack of clear objective reality. Logg and colleagues (2018) have argued that that scholars can only truly measure overconfidence when they have the ability to compare self-beliefs against an objective standard. Due to this requirement, the domain of leadership has generally not labeled the overestimation of leadership abilities as overconfidence, instead relying on the degree of agreement or disagreement between a leader and respective others.

These different approaches are problematic because Moore and Healy (2008) demonstrated that overconfidence consists of three, empirically distinct types: overestimation, overplacement, and overprecision. Overestimation occurs when an individual overestimates actual performance, knowledge, ability, chance of success, or level of control over future events (Moore & Healy, 2008). For example, if an individual took a test and believed that he answered 80% of the questions correctly when, in reality, he only answered 40% correctly, he has

overestimated his performance. Overplacement occurs when an individual believes they are relatively better than those around them. For example, in a group, I might believe I am a better presenter than my peers and strive to be the one to deliver an important presentation.

The distinctiveness between the types of overconfidence result in instances where overestimation and overplacement are misaligned.<sup>6</sup> Moore and Healy (2008) found that overestimation increases with task difficulty, whereas overplacement decreases with task difficulty. In other words, there might be instances where an individual overestimates his ability while underplacing himself relative to others. This divergence in the types of overconfidence could create confusion among researchers attempting to operationalize these constructs in the leadership domain.

Further building on the distinctiveness of these constructs, Anderson and colleagues (2012) demonstrated, in their status-enhancement theory of overconfidence, that a desire for status predicted overconfidence.<sup>7</sup> In their studies, overconfidence was operationalized as overplacement and they found that overconfidence helped individuals achieve higher social status in groups. They focused on overplacement (perceived abilities relative to others) due to its pivotal role in assigning status in groups (Berger, Cohen, & Zelditch, 1972; Ridgeway, 1984).

These theoretical accounts of overconfidence present situations where leader overestimation and overplacement could differ, thus making it more difficult to understand how

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<sup>6</sup> For example, when I perform well on a financial acumen test, I will have a tendency to underestimate my performance but am likely to underestimate the performance of others even more thus *overplacing* myself in comparison to others. In contrast, when I perform poorly on the same test, I will have a tendency to overestimate myself, overestimate others even more and subsequently *underplace* myself in comparison to others.

<sup>7</sup> Anderson and colleagues (2012) found that the desire for status (measured as trait dominance) was the only significant predictor of overplacement. Their other measures included the Big 5 personality traits and the needs for affiliation and achievement.

overconfidence affect others. As a result, I believe a valuable future direction should involve determining relationships between different operationalizations of leader overconfidence such as self-other agreement and objective indices of overconfidence. This approach could also moderate the difficulty of the task to determine if this causes overestimation and overplacement to vary. And finally, I believe it is important to explore if the desire for status results in different social effects than simply overestimating one's ability due to a lack of complete information about one's self and others.

### **Reciprocal Leader-Follower Effects**

How do overconfident leaders respond to followers that avoid them? How does team member interaction avoidance affect leadership behaviors? Do they push harder or does this correct their overconfidence? My theoretical framework argued that team members respond to overconfident leaders by avoiding them. I posited that interacting with an overconfident leader was likely to trigger negative emotions among team members and this would contribute to avoidance behaviors. This hypothesis was supported in Studies 2 through 4. Thus, on teams where the leader is overconfident the process of leadership is likely to be affected. As a result, these findings prompt the need to also investigate how leaders respond to team members that avoid them.

Consistent with previous scholars, I conceptualize leadership as a mutual influence process. (Bedeian & Hunt, 2006; Collinson, 2005; DeRue & Ashford, 2010; Gronn, 2002; Parry, 1998; Uhl-Bien, Marion, & McKelvey, 2007). The leadership process can occur irrespective of one's position in the hierarchy and exists as a state of being that individuals can enter into regardless of their formal role (Quinn, 1996). In this view, leaders and followers are inseparable and leadership unfolds through dialectical relationships whereby leader and follower identities

are co-constructed and continually change (DeRue & Ashford, 2010). This can result in situations where a group of followers do not automatically grant a supervisor the identity of a leader whereas a team of peers could grant a team member the identity of a leader. Moreover, an individual could initially co-construct the identity of a leader with others only to have this identity challenged at a later time. Thus, being a leader, or a follower, is not a static role or process; it is subject to changes and disruptions.

Collinson (2005) argues that, in leader-follower relationships, the potential for conflict and dissent always exists. Leaders cannot assume they will be followed, nor can they omnisciently predict follower motivations. Followers can resist leader's efforts in myriad and subtle ways, such as 'disengagement' (Prasad & Prasad, 1998) 'foot dragging' (Scott, 1990), irony and satire (Collinson, 2002) and even by simply doing nothing (Collinson, 2005). Building on DeRue and Ashford's (2010) model of the leadership process as an ongoing series of claiming and granting between leaders and followers, I argue that interaction avoidance acts as a form of follower resistance that denies granting an individual the legitimate identity of a leader. Through choosing to avoid an overconfident leader, followers remove themselves from the ability to be influenced, while simultaneously avoid granting the leader the opportunity to influence. Thus, a future research question can explore what happens to the leadership process when followers resist and no longer grant the leader identity to a "*leader*" they perceive as overconfident? How does the "*leader*" reciprocate during this evolving process? Does the "*leader*" fight back to reassert his or her identity? Does a vacuum for leadership on a team create new leader identities amongst the followers? Through viewing leadership as an ongoing mutual influence process, studying the dynamics for how overconfidence can alter leader and follower identities represents a potentially fruitful area of future study.

## Team Effects

**Leader overconfidence and team goal setting.** How does an overconfident leader affect a team's goal setting activities? In their taxonomy to team processes, Marks and colleagues (2001) categorize all team processes as unfolding across *transition* and *action* phases. Utilizing this framework, teams are seen as engaging in different types of work across each phase. At times, the team is in a *transition phase*, where the primary focus is on planning and evaluation activities that serve to guide team goal accomplishment. Throughout this phase teams develop strategy, set goals, and compare past performance against expected outcomes. At other times, the team is in an *action phase*, where team acts contribute directly to goal accomplishment. Here, the team performs its work, coordinates with one another, and monitors progress toward team goals.

It is possible that certain team processes (e.g., specifying goals) and phases (e.g., the transition phase) might be more reliant on team leader involvement and suffer more adverse effects than other team processes (e.g., team back up behavior). In goal specification, the team needs to define its core goals as well as specify the amount or target that defines success (e.g. grow sales of thermostats by 20% to 2 million dollars). Throughout goal setting activities, the team leader provides essential inputs. These inputs include broader information from the organizational context, such as organizational vision and strategy, that must align with the team's mission and goals. Thus, leader involvement is likely to be more intensive during this phase. In contrast, team backup behavior entails providing task-related support for a teammate. This can entail coaching, assisting, and even completing the task for a fellow team member. These types of team processes are more dependent on team member interactions and often occur without direct leader involvement.



Team processes requiring greater team leader involvement could suffer more when the team leader is overconfident. These episodes provide opportunities for both negative interactions (e.g., the leader did not listen to my feedback) as well as provide instances where decision errors from the leader can shape the structure and activities on the team. For example, overconfident leader involvement in goal setting could lead to unrealistic goals (Hayward & Hambrick, 1997; Malmendier & Tate, 2005) and unnecessary risks (Barber & Odean, 2001; Camerer & Lovallo, 1999). This could set the team up for failure and conflict with what the team believes it can accomplish. Moreover, if a leader resists feedback from team members (Bernardo & Welch, 2001; Gino & Moore, 2007) she risks alienating individuals on the team. Thus, a team that accumulates negative leader interactions as well as poor goals is likely to suffer negative performance consequences. Developing a broader understanding of how leader overconfidence affects specific team processes can provide both scholars and practitioners with additional tools for managing negative consequences associated with overconfident leaders.

**Leader overconfidence and team cohesiveness.** Does leader overconfidence increase team cohesiveness? Under what conditions does this occur? One of the secondary themes emerging from Study 2 was an increase in gossip among team members in response to overconfident leaders. In addition, Study 2 also uncovered instances where team members reported that having an overconfident leader contributed to making the team more cohesive. I propose a more in-depth exploration of these results to determine if leader overconfidence can have a positive effect on a team – namely, they bring team members closer together.

Scholars studying the role of gossip in groups have demonstrated that gossip can lead to positive group outcomes through constraining self-serving behavior (Beersma & Van Kleef, 2011) and increasing a group's cooperativeness (Feinberg, Willer, Steller, & Keltner, 2012).

Individuals are compelled to share gossip after experiencing a negative emotional experience in order to warn others (Feinberg et. al., 2012). The occurrence of gossip both informs others who to avoid as well as serving as a warning that they too could be gossiped about constraining others' self-serving behavior and increasing cooperativeness. On teams with overconfident leaders, the negative affective experiences arising from interactions with the leader are likely to be gossiped about by team members and serve to constrain other team members' behavior.

Gossip then becomes the mechanism through which team members can share painful experiences. Durkheim (1912/1995) argued that solidarity within groups increase as a result of sharing painful experiences. Indeed, Bastian and colleagues (2014) found that sharing painful experiences with other individuals increased trust, bonding, and cooperation. Thus, shared pain can serve to bind a group together. Considering these findings, I propose that, through the use of gossip, team members will gossip about their painful experiences with an overconfident leader and these actions will increase the cohesiveness of the team.

There might be important team and organizational moderators for these effects. First, a team's locus of control and prosocial behaviors could affect a tendency to gossip versus withdraw. Individuals with an external locus of control gossip more than internals (Watson, 2011) and individuals possessing more prosocial orientations are more likely to engage in prosocial gossip (Feinberg, et. al., 2012). At the aggregate level, these characteristics could moderate the amount of gossip occurring on the team. And finally, the organizational context could moderate gossip. Scholars found that individuals were less likely to gossip about an abusive supervisor when they strongly identified with their organization (Decoster, Camps, Stouten, Vandevyvere, & Tripp, 2013).

### **Organizational Effects**

**Causal attributions about overconfident leaders.** How do organizational members (beyond individual team members and direct reports) attribute causal team outcomes to leaders they perceive as overconfident? What are the organizational implications of these attributions (i.e., social capital, promotions, turnover, etc.)? Meta-analyses have established that leadership has significant effects on organizational performance (DeRue, Nahrgang, Wellman, & Humphrey, 2011). Other scholars have argued that while important, individuals often romanticize leadership and over-use it as an explanation for organizational performance (Meindl, Ehrlich, & Dukerich, 1985). This tendency to romanticize leadership (Meindl, et. al., 1985) arises from a psychological need to make sense of complex organizational phenomena (Bligh & Schyns, 2007) which is strongest for very high or very low performance. So, when a team does great or performs poorly, it is likely that others will consider the leader as more important than the team or other factors (e.g., the context) in causing this outcome.

A review of the romance of leadership research finds that, when studying this phenomenon, scholars typically align leader attributes with performance outcomes (good leader = good results and a bad leader = bad results) when asking participants to rate the influence that leaders have on organizational outcomes (Meindl, et. al., 1985). In other words, outcomes were consistent with common leadership prototypes (Lord, Foti, & DeVader, 1984). Moreover, when studying leadership prototypes, scholars typically omit performance outcomes as an input for what we define as a good leader (Lord, et. al., 1984). This means we cannot label a prototypical leader as an individual that gets results.

I argue that extant approaches for understanding how others evaluate leader causality omits many real-life situations. I posit that situations exist where leader attributes and competence will not be aligned with organizational performance. The reality is that sometimes

bad leaders have good team results. For example, overconfident presidents can inherit a strong/weak economy and overconfident leaders can inherit a high performing team or organization and prior results can continue – at least for a time. The question that arises from these misalignments is, where is causality for organizational performance attributed when misalignments occur? Does the romance of leadership effect continue to persist? Or, is it possible that other actors are seen as more causal in producing organizational outcomes than the leader? If this is the case, what are the organizational implications for such attributions?

Thus, a future research study should explore the effects of others' perceptions of overconfident leaders and their teams when misalignments occur (an overconfident leader with good team outcomes). For example, if organizational members perceive a leader as overconfident, they might attribute greater causality to the team instead of the leader. The consequence of this attribution could lead to an overconfident leader having less social capital and promotion opportunities in the organization. Such a finding could challenge the notion that overconfidence creates social benefits. Understanding how others attribute causality in these situations can further our understanding of the social consequences of leadership overconfidence.

**Social networks of overconfident individuals and/or leaders.** Do overconfident individuals utilize a social capital strategy to attain status in social contexts? Anderson and colleagues (2012) found that overconfident individuals have a greater desire for status and its associated social benefits (e.g., greater control, influence, and access to resources). They measured a desire for status using the need for dominance scale on Jackson's (1999) Personal Research Form (PRF) and compared this measure with the needs for affiliation and achievement along with the Big Five personality traits (Benet-Martinez & John, 1998; John & Srivastava, 1999). Sample need for dominance items include asking participants how much they want to

have control and influence in social contexts, and how much they aspire toward positions of high status. Their results demonstrated that the need for dominance was the only significant predictor of overconfidence. This finding demonstrates that an individual's desire for social status and its associated benefits promotes overconfidence and pervades their self-judgment and behavior. As individuals behave in an overconfident manner they appear more competent to others and this results in them gaining higher status in social situations. Thus, the appearance of competence becomes a successful strategy for achieving desired status in social contexts.

Another means through which individuals can attain higher status is through the development of social capital (Lin, 1999). Social capital refers to the access to, and mobilization of, resources within one's social network. These social resources exist as both direct and indirect ties. In a review of the literature Lin (1999) outlines extensive empirical evidence demonstrating how an individual's ability to mobilize their social capital affects their attained status.

Mobilization refers to the ability to *use* one's social contacts and the resources they provide to attain higher status. Across different countries and contexts, scholars found that individuals with higher status contacts (e.g, prestige) in their social network were able to attain higher status in their job searching efforts (c.f., De Graaf & Flap, 1988; Lin, Vaughn, & Ensel, 1981; Marsden & Hurlbert, 1988). Thus, having, and mobilizing, high status contacts within one's social networks represents another effective strategy for obtaining status in social groups.

Building on these two literatures raises an interesting question. If overconfident individuals desire status, will they also pursue a social capital strategy to attain status? If so, how do their social networks vary when compared with non-overconfident individuals? Do they have higher status contacts in their networks? Do they have more extensive (size and tie diversity) networks? Are they more effective at mobilizing (using) their social network? It is reasonable to

hypothesize that the desire for status will lead overconfident individual to develop more expansive social networks with higher status contacts. Moreover, it is possible that overconfident individuals will have fewer contacts at the same and lower levels in an organization when compared to accurate and underconfident individuals because these contacts are not as instrumental in attaining status. Overconfident individuals might also be more effective at mobilizing their social capital though appearing more competent to their contacts. This might be even more significant with weak ties than strong ties since weak ties might have less opportunity to learn about a person's overconfidence. Thus, we could see different effects within and outside of a focal individual's organization. And, it is possible that overconfident individuals are more likely to job and position hop at a higher rate as they utilize their network to gain higher and higher status. Finally, and somewhat counterintuitively, if leader social capital varies as a result of overconfidence, it might be possible that an overconfident leader can be more effective in obtaining resources and status for her team instead of just for themselves. Exploring how overconfident individuals develop social capital is an interesting area of research that can shed further insight into how this phenomenon affects the broader social context.

## REFERENCES

- Aarons, G. A., Ehrhart, M. G., Farahnak, L. R., Sklar, M., & Horowitz, J. 2017. Discrepancies in leader and follower ratings of transformational leadership: Relationship with organizational culture in mental health. *Administration and Policy in Mental Health and Mental Health Services Research*, 44(4): 480-491.
- Aiken, L. S., & West, S. G. 1991. *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Alicke, M. D. 1985. Global self-evaluation as determined by the desirability and controllability of trait adjectives. *Journal of Personality and Social Psychology*, 49(6): 1621.
- Ames, D. R., Rose, P., & Anderson, C. P. 2006. The NPI-16 as a short measure of narcissism. *Journal of research in personality*, 40(4): 440-450.
- Amundsen, S., & Martinsen, Ø. L. 2014. Self–other agreement in empowering leadership: Relationships with leader effectiveness and subordinates' job satisfaction and turnover intention. *The Leadership Quarterly*, 25(4): 784–800.
- Ancona, D. G., & Caldwell, D. F. 1992. Bridging the boundary: External activity and performance in organizational teams. *Administrative science quarterly*, 37(4): 634-665.
- Anderson, C., Ames, D. R., & Gosling, S. D. 2008. Punishing hubris: The perils of overestimating one's status in a group. *Personality and Social Psychology Bulletin*, 34(1): 90-101.
- Anderson, C., Brion, S., Moore, D. A., & Kennedy, J. A. 2012. A status-enhancement account of overconfidence. *Journal of Personality and Social Psychology*, 103(4): 718–735.
- Anderson, C., John, O. P., Keltner, D., & Kring, A. M. 2001. Who attains social status? Effects of personality and physical attractiveness in social groups. *Journal of Personality and*

- Social Psychology*, 81(1): 116–132.
- Anderson, C., & Kilduff, G. J. 2009. Why do dominant personalities attain influence in face-to-face groups? The competence-signaling effects of trait dominance. *Journal of Personality and Social Psychology*, 96(2): 491.
- Anderson, C., Srivastava, S., Beer, J. S., Spataro, S. E., & Chatman, J. A. 2006. Knowing your place: self-perceptions of status in face-to-face groups. *Journal of Personality and Social Psychology*, 91(6): 1094.
- Argote, L., Gruenfeld, D., & Naquin, C. 2001. Group learning in organizations. In M. E. Turner (Ed.), *Groups at work: Theory and research*, 369-411. New York, NY: Routledge
- Ashforth, B. E., & Lee, R. T. 1990. Defensive behavior in organizations: A preliminary model. *Human Relations*, 43: 621–648.
- Atwater, L. E., Ostroff, C., Yammarino, F. J., & Fleenor, J. W. 1998. Self-other agreement: does it really matter? *Personnel Psychology*, 51(3): 577–598.
- Atwater, L. E., & Yammarino, F. J. 1997. Self–other rating agreement. In G. R. Ferris (Ed.), *Research in Personnel and Human Resources Management*, vol. 15: 121–174. US: JAI Press.
- Avolio, B. J., & Gardner, W. L. 2005. Authentic leadership development: Getting to the root of positive forms of leadership. *The leadership quarterly*, 16(3): 315-338.
- Bales, R. F., Strodtbeck, F. L., Mills, T. M., & Roseborough, M. E. 1951. Channels of communication in small groups. *American Sociological Review*, 16(4): 461-468.
- Barber, B. M., & Odean, T. 2001. Boys will be boys: Gender, overconfidence, and common stock investment. *The quarterly journal of economics*, 116(1): 261-292.
- Barrick, M. R., Shaffer, J. A., & DeGrassi, S. W. 2009. What you see may not be what you get:



- relationships among self-presentation tactics and ratings of interview and job performance. *Journal of Applied Psychology*, 94(6): 1394.
- Bass, B. M., & Yammarino, F. J. 1991. Congruence of self and others' leadership ratings of naval officers for understanding successful performance. *Applied Psychology*, 40(4): 437-454.
- Battista, J. 2016. **Rex Ryan's bluster has blown out of Buffalo ... and the NFL?** Retrieved August 16, 2018, from <http://www.nfl.com/news/story/0ap3000000764863/article/rex-ryans-bluster-has-blown-out-of-buffalo-and-the-nfl>
- Bastian, B., Jetten, J., & Ferris, L. J. 2014. Pain as social glue: Shared pain increases cooperation. *Psychological science*, 25(11): 2079-2085.
- Baumeister, R. F. 1982. Self-esteem, self-presentation, and future interaction: A dilemma of reputation. *Journal of personality*, 50(1): 29-45.
- Baumeister, R. F., Vohs, K. D., Nathan DeWall, C., & Zhang, L. 2007. How emotion shapes behavior: Feedback, anticipation, and reflection, rather than direct causation. *Personality and Social Psychology Review*, 11(2): 167-203.
- Bedeian, A. G., & Hunt, J. G. 2006. Academic amnesia and vestigial assumptions of our forefathers. *The leadership quarterly*, 17(2): 190-205.
- Beer, J. S., Lombardo, M. V., & Bhanji, J. P. 2010. Roles of medial prefrontal cortex and orbitofrontal cortex in self-evaluation. *Journal of Cognitive Neuroscience*, 22(9): 2108-2119.
- Beersma, B., & Van Kleef, G. A. 2011. How the grapevine keeps you in line: Gossip increases contributions to the group. *Social Psychological and Personality Science*, 2(6): 642-649.
- Bendersky, C., & Shah, N. P. 2013. The downfall of extraverts and rise of neurotics: The dynamic process of status allocation in task groups. *Academy of Management Journal*,

- 56(2): 387-406.
- Benet-Martinez, V., & John, O. P. 1998. Los cinco grandes across cultures and ethnic groups: Multitrait method analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology*, 75: 729–750.
- Benlian, A. 2014. Are we aligned... enough? The effects of perceptual congruence between service teams and their leaders on team performance. *Journal of Service Research*, 17(2): 212-228.
- Berger, J., Cohen, B. P., & Zelditch Jr, M. 1972. Status characteristics and social interaction. *American Sociological Review*, 241-255.
- Berger, J., Rosenholtz, S. J., & Zelditch Jr, M. 1980. Status organizing processes. *Annual Review of Sociology*, 6(1): 479-508.
- Bernardo, A. E., & Welch, I. 2001. On the evolution of overconfidence and entrepreneurs. *Journal of Economics & Management Strategy*, 10(3): 301–330.
- Black, H., Soto, L., & Spurlin, S. 2016. Thinking about thinking about leadership: Metacognitive ability and leader developmental readiness. *New Directions for Student Leadership*, 2016: 85–95.
- Blau, P. M. 1964. *Exchange and power in social life*. New York, NY: Wiley.
- Bliese, P. D. 2000. Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein, & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions*, 349–381. San Francisco, CA: Jossey-Bass.
- Bligh, M. C., & Schyns, B. 2007. Leading question: The romance lives on: Contemporary issues surrounding the romance of leadership. *Leadership*, 3(3): 343-360.

- Braddy, P. W., Gooty, J., Fleenor, J. W., & Yammarino, F. J. 2014. Leader behaviors and career derailment potential: A multi-analytic method examination of rating source and self-other agreement. *The Leadership Quarterly*, 25(2): 373–390.
- Brewer, M. B., & Kramer, R. M. 1986. Choice behavior in social dilemmas: Effects of social identity, group size, and decision framing. *Journal of Personality and Social Psychology*, 50(3): 543-549.
- Brooks, A. K. 1994. Power and the production of knowledge: Collective team learning in work organizations. *Human Resource Development Quarterly*, 5(3): 213–235.
- Buhrmester, M., Kwang, T., & Gosling, S. D. 2011. Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data?. *Perspectives on Psychological Science*, 6(1): 3-5.
- Camerer, C., & Lovallo, D. 1999. Overconfidence and excess entry: An experimental approach. *The American Economic Review*, 89(1): 306–318.
- Campbell, W. K., Goodie, A. S., & Foster, J. D. 2004. Narcissism, confidence, and risk attitude. *Journal of behavioral decision making*, 17(4): 297-311.
- Carson, J. B., Tesluk, P. E., & Marrone, J. A. 2007. Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of management Journal*, 50(5): 1217-1234.
- Carver, C. S., & Harmon-Jones, E. 2009. Anger is an approach-related affect: evidence and implications. *Psychological Bulletin*, 135(2): 183.
- Carver, C. S., & Scheier, M. F. 2014. Dispositional optimism. *Trends in cognitive sciences*, 18(6): 293-299.
- Chan, D. 1998. Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of applied psychology*,

83(2): 234.

- Chell, E. 1998. Critical Incident Technique. In G. Symon and C. Cassell (Eds.) *Qualitative Methods and Analysis in Organizational Research: A Practical Guide*: 51–72: London: Sage.
- Chen, G., Crossland, C., & Luo, S. 2015. Making the same mistake all over again: CEO overconfidence and corporate resistance to corrective feedback. *Strategic Management Journal*, 36(10): 1513–1535.
- Church, A. H. 1997. Managerial self-awareness in high-performing individuals in organizations. *Journal of Applied Psychology*, 82(2): 281–292.
- Cohen, J. 1998. *Statistical power analysis for the behavioral sciences (2nd ed.)*. Hillsdale, NJ: Lawrence Erlbaum.
- Cohen, S. G., & Bailey, D. E, 1997. What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management*, 23(3): 239–290.
- Collinson, D. L. 2002. Managing humour. *Journal of Management Studies*, 39(3): 269-288.
- Collinson, D. 2005. Dialectics of leadership. *Human relations*, 58(11): 1419-1442.
- Crawford, L. E., & Cacioppo, J. T. 2002. Learning where to look for danger: Integrating affective and spatial information. *Psychological Science*, 13(5): 449–453.
- Davidson, R. J. 1998. Anterior electrophysiological asymmetries, emotion, and depression: Conceptual and methodological conundrums. *Psychophysiology*, 35(5): 607–614.
- Day, D. V., Gronn, P., & Salas, E. 2004. Leadership capacity in teams. *The Leadership Quarterly*, 15(6): 857-880.
- Decoster, S., Camps, J., Stouten, J., Vandevyvere, L., & Tripp, T. M. 2013. Standing by your organization: The impact of organizational identification and abusive supervision on

- followers' perceived cohesion and tendency to gossip. *Journal of Business Ethics*, 118(3): 623-634.
- De Graaf, N.D, Flap, H.D. 1988. With a little help from my friends. *Social Forces* 67(2): 452-72, 2.
- DeRue, D. S. 2011. Adaptive leadership theory: Leading and following as a complex adaptive process. In A. Brief & B. Staw (Eds.), *Research in organizational behavior*, vol. 31: 125–150. Greenwich, CT: JAI.
- DeRue, D. S., & Ashford, S. J. 2010. Who will lead and who will follow? A social process of leadership identity construction in organizations. *Academy of Management Review*, 35(4): 627-647.
- Derue, D. S., Nahrgang, J. D., Wellman, N. E. D., & Humphrey, S. E. 2011. Trait and behavioral theories of leadership: An integration and meta-analytic test of their relative validity. *Personnel psychology*, 64(1): 7-52.
- Dunning, D., Griffin, D. W., Milojkovic, J. D., & Ross, L. 1990. The overconfidence effect in social prediction. *Journal of Personality and Social Psychology*, 58(4): 568–581.
- Dunning, D., Heath, C., & Suls, J. M. 2004. Flawed self-assessment implications for health, education, and the workplace. *Psychological Science in the Public Interest*, 5(3): 69–106.
- Dunning, D., Leuenberger, A., & Sherman, D. A. 1995. A new look at motivated inference: Are self-serving theories of success a product of motivational forces? *Journal of Personality and Social Psychology*, 69(1): 58.
- Durkheim, E. 1995. *Les formes élémentaires de la vie religieuse [The elementary forms of religious life]*. New York, NY: Free Press. (Original work published 1912)

- Dvir, T., & Shamir, B. (2003). Follower developmental characteristics as predicting transformational leadership: A longitudinal field study. *The Leadership Quarterly*, 14(3): 327–344.
- Ehrlinger, J., & Dunning, D. 2003. How chronic self-views influence (and potentially mislead) estimates of performance. *Journal of personality and social psychology*, 84(1): 5.
- Ehrlinger, J., Johnson, K., Banner, M., Dunning, D., & Kruger, J. 2008. Why the unskilled are unaware: Further explorations of (absent) self-insight among the incompetent. *Organizational Behavior and Human Decision Processes*, 105(1): 98–121.
- Ehrlinger, J., Mitchum, A. L., & Dweck, C. S. 2016. Understanding overconfidence: Theories of intelligence, preferential attention, and distorted self-assessment. *Journal of Experimental Social Psychology*, 63: 94-100.
- Edmondson, A. C. 1999. Psychological Safety and Learning Behavior in Work Teams. *Administrative Science Quarterly*, 44(2): 350–383.
- Edmondson, A. C. 2002. The local and variegated nature of learning in organizations. *Organization Science*, 13(2): 128–146.
- Edmondson, A. C. 2003. Speaking up in the operating room: How team leaders promote learning in interdisciplinary action teams. *Journal of Management Studies*, 40(6): 1419–1452.
- Edmondson, A. C., Dillon, J. R., & Roloff, K. S. 2007. Three perspectives on team learning: outcome improvement, task mastery, and group process. *The Academy of Management Annals*, 1(1): 269-314.
- Edwards, J. R. 1994. The study of congruence in organizational behavior research: Critique and a proposed alternative. *Organizational Behavior and Human Decision Processes*, 58(1): 51–100.

- Edwards, J. R. 2002. Alternatives to difference scores: Polynomial regression analysis and response surface methodology. In F. Drasgow & N. W. Schmitt (Eds.), *Advances in measurement and data analysis*: 350–400. San Francisco: Jossey-Bass.
- Edwards, J. R., & Parry, M. E. 1993. On the use of polynomial regression equations as an alternative to difference scores in organizational research. *Academy of Management Journal*, 36(6): 1577–1613.
- Ehrlinger, J., Johnson, K., Banner, M., Dunning, D., & Kruger, J. 2008. Why the unskilled are unaware: Further explorations of (absent) self-insight among the incompetent. *Organizational Behavior and Human Decision Processes*, 105(1): 98-121.
- Emmons, R. A. 1987. Narcissism: theory and measurement. *Journal of personality and social psychology*, 52(1): 11.
- Engelen, A., Neumann, C., & Schwens, C. 2015. “Of course I can”: The effect of CEO overconfidence on entrepreneurially oriented firms. *Entrepreneurship Theory and Practice*, 39(5): 1137-1160.
- Ensley, M. D., Hmieleski, K. M., & Pearce, C. L. 2006. The importance of vertical and shared leadership within new venture top management teams: Implications for the performance of startups. *Leadership Quarterly*, 17(3): 217-231.
- Erdogan, B., Bauer, T. N., & Walter, J. 2015. Deeds that help and words that hurt: Helping and gossip as moderators of the relationship between leader–member exchange and advice network centrality. *Personnel Psychology*, 68(1): 185-214.
- Estes, R., & Hosseini, J. 1988. The gender gap on Wall Street: an empirical analysis of confidence in investment decision making. *The journal of psychology*, 122(6): 577-590.

- Farrell, D. 1983. Exit, voice, loyalty, and neglect as responses to job dissatisfaction: A multidimensional scaling study. *Academy of Management Journal*, 26(4): 596–607.
- Fast, N. J., Sivanathan, N., Mayer, N. D., & Galinsky, A. D. 2012. Power and overconfident decision-making. *Organizational behavior and human decision processes*, 117(2): 249-260.
- Feinberg, M., Willer, R., Stellar, J., & Keltner, D. 2012. The virtues of gossip: reputational information sharing as prosocial behavior. *Journal of personality and social psychology*, 102(5): 1015.
- Fellner, G., & Maciejovsky, B. 2007. Risk attitude and market behavior: Evidence from experimental asset markets. *Journal of Economic Psychology*, 28(3): 338-350.
- Flanagan, J.C. 1954. The Critical Incident Technique, *Psychological Bulletin*, 51(4): 327–58.
- Fleenor, J. W., Smither, J. W., Atwater, L. E., Braddy, P. W., & Sturm, R. E. 2010. Self–other rating agreement in leadership: A review. *The Leadership Quarterly*, 21(6): 1005–1034.
- Forbes, D. P. 2005. Are some entrepreneurs more overconfident than others?. *Journal of business venturing*, 20(5): 623-640.
- Foster, J. D., Campbell, W. K., & Twenge, J. M. 2003. Individual differences in narcissism: Inflated self-views across the lifespan and around the world. *Journal of Research in Personality*, 37(6): 469-486.
- Galvin, B. M., Waldman, D. A., & Balthazard, P. 2010. Visionary communication qualities as mediators of the relationship between narcissism and attributions of leader charisma. *Personnel Psychology*, 63(3): 509-537.
- Galasso, A., & Simcoe, T. S. 2011. CEO overconfidence and innovation. *Management Science*, 57(8): 1469-1484.



- Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. 2005. "Can you see the real me?" A self-based model of authentic leader and follower development. *The Leadership Quarterly*, 16(3): 343–372.
- Gerben, S., Van Der Vegt, & Bunderson, J. S. 2005. Learning and performance in multidisciplinary teams: The importance of collective team identification. *Academy of Management Journal*, 48(3): 532–547.
- Gibson, C. B., Cooper, C. D., & Conger, J. A. 2009. Do you see what we see? The complex effects of perceptual distance between leaders and teams. *Journal of Applied Psychology*, 94(1): 62.
- Gibson, C., & Vermeulen, F. 2003. A healthy divide: Subgroups as a stimulus for team learning behavior. *Administrative Science Quarterly*, 48(2): 202–239.
- Gino, F., & Moore, D. A. 2007. Effects of task difficulty on use of advice. *Journal of Behavioral Decision Making*, 20(1): 21–35.
- Goffman, E. 1959. *The presentation of self in everyday life*. Garden City, NY: Doubleday.
- Grant, A. M., Gino, F., & Hofmann, D. A. 2011. Reversing the extraverted leadership advantage: The role of employee proactivity. *Academy of Management Journal*, 54(3): 528-550.
- Gronn, P. 2002. Distributed leadership as a unit of analysis. *The leadership quarterly*, 13(4): 423-451.
- Guzzo, R. A., & Dickson, M. W. 1996. Teams in organizations: Recent research on performance and effectiveness. *Annual review of psychology*, 47(1): 307-338.
- Hackman, J. R. 1987. The design of work teams. In J. W. Lorsch (Ed.), *Handbook of organizational behavior*: 315–341. Englewood Cliffs, NJ: Prentice-Hall.
- Hackman, J. R. 2002. *Leading teams: Setting the stage for great performances*. Boston:

Harvard Business Press.

- Hannah, S. T., & Avolio, B. J. 2010. Ready or not: How do we accelerate the developmental readiness of leaders?. *Journal of Organizational Behavior*, 31(8): 1181-1187.
- Haselton, M. G., Nettle, D., & Murray, D. R. 2015. *The Evolution of Cognitive Bias*. In The Handbook of Evolutionary Psychology. John Wiley & Sons, Inc. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/9781119125563.evpsych241/abstract>
- Hayes, A.F. 2013. *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Press.
- Hayward, M. L., & Hambrick, D. C. 1997. Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly*, 42(1): 103-127.
- Heath, C., Larrick, R. P., & Klayman, J. 1998. Cognitive repairs: How organizational practices can compensate for individual shortcomings. *Research in Organizational Behavior*, 20: 1-37.
- Henderson, R. M., & Clark, K. B. 1990. Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms. *Administrative science quarterly*, 35(1): 9-30.
- Hilary, G., & Menzly, L. 2006. Does past success lead analysts to become overconfident? *Management Science*, 52(4): 489–500.
- Hiller, N. J., & Hambrick, D. C. 2005. Conceptualizing executive hubris: the role of (hyper-) core self-evaluations in strategic decision-making. *Strategic Management Journal*, 26(4): 297-319.
- Ho, P. H., Huang, C. W., Lin, C. Y., & Yen, J. F. 2016. CEO overconfidence and financial crisis: Evidence from bank lending and leverage. *Journal of Financial Economics*, 120(1):

194-209.

- Howell, J. M., & Shamir, B. 2005. The role of followers in the charismatic leadership process: Relationships and their consequences. *Academy of Management Review*, 30(1), 96–112.
- Humberg, S., Nestler, S., & Back, M. D. 2018. Response Surface Analysis in personality and social psychology: checklist and clarifications for the case of congruence hypotheses. *Social Psychological and Personality Science*, (2018): 1-11.
- Hunter, J. 2016. *A timeline of the Rex Ryan Era in Buffalo*. Retrieved August 21, 2017, from <https://www.buffalorumblings.com/2016/12/28/14082234/buffalo-bills-rex-ryan-fired-timeline-of-the-rex-ryan-era-in-buffalo>.
- Jackson, D. N. 1999. *Personality Research Form manual (3rd ed.)*. Port Huron, MI: Sigma Assessment Systems.
- Jakobsson, N., Levin, M., & Kotsadam, A. 2013. Gender and overconfidence: effects of context, gendered stereotypes, and peer group. *Advances in Applied Sociology*, 3(02): 137.
- James, L. R., Demaree, R. G., & Wolf, G. 1984. Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69(1): 85–98.
- John, O. P., & Srivastava, S. 1999. The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York, NY: Guilford Press.
- Johnson, D. D. P. 2004. *Overconfidence and War: The Havoc and Glory of Positive Illusions*. Cambridge: Harvard University Press.
- Johnson, D. D. P., & Fowler, J. H. 2011. The evolution of overconfidence. *Nature*, 477(7364): 317–320.

- Judge, T. A., LePine, J. A., & Rich, B. L. 2006. Loving yourself abundantly: relationship of the narcissistic personality to self-and other perceptions of workplace deviance, leadership, and task and contextual performance. *Journal of Applied Psychology*, 91(4): 762.
- Judge, T. A., Piccolo, R. F., & Ilies, R. 2004. The forgotten ones? The validity of consideration and initiating structure in leadership research. *Journal of applied psychology*, 89(1): 36.  
Chicago
- Kelley, R. E. 1992. *The power of followership: How to create leaders people want to follow, and followers who lead themselves*. New York: Doubleday.
- Kennedy, J. A., Anderson, C., & Moore, D. A. 2013. When overconfidence is revealed to others: Testing the status-enhancement theory of overconfidence. *Organizational Behavior and Human Decision Processes*, 122(2): 266-279.
- Kenny, D. A. 1994. *Interpersonal perception*. New York: Guilford.
- Kenny, D. A., & La Voie, L. 1984. The social relations model. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, vol. 18: 142-182. Orlando, FL: Academic Press.
- Klayman, J., Soll, J. B., Gonzalez-Vallejo, C., & Barlas, S. 1999. Overconfidence: It depends on how, what, and whom you ask. *Organizational Behavior and Human Decision Processes*, 79(3): 216–247.
- Klein, K. J., & Kozlowski, S. W. 2000. From micro to meso: Critical steps in conceptualizing and conducting multilevel research. *Organizational research methods*, 3(3): 211-236.
- Korsgaard, M. A., Schweiger, D. M., & Sapienza, H. J. 1995. Building commitment, attachment, and trust in strategic decision-making teams: The role of procedural justice. *Academy of Management Journal*, 38(1): 60-84.
- Krehbiel, P. J., & Cropanzano, R. 2000. Procedural justice, outcome favorability and emotion.

- Social Justice Research*, 13(4): 339-360.
- Kruger, J., & Dunning, D. 1999. Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology*, 77(6): 1121.
- Kuncel, N. R., Credé, M., & Thomas, L. L. 2007. A Meta-Analysis of the Predictive Validity of the Graduate Management Admission Test (GMAT) and Undergraduate Grade Point Average (UGPA) for Graduate Student Academic Performance. *Academy of Management Learning & Education*, 6(1): 51-68.
- Kwan, V. S., John, O. P., Kenny, D. A., Bond, M. H., & Robins, R. W. 2004. Reconceptualizing individual differences in self-enhancement bias: an interpersonal approach. *Psychological Review*, 111(1): 94.
- Larrick, R. P., Burson, K. A., & Soll, J. B. 2007. Social comparison and confidence: When thinking you're better than average predicts overconfidence (and when it does not). *Organizational Behavior and Human Decision Processes*, 102(1): 76-94.
- Lau, D. C., & Murnighan, J. K. 2005. Interactions within groups and subgroups: The effects of demographic faultlines. *Academy of Management Journal*, 48(4): 645-659.
- Leary, M. R., & Kowalski, R. M. 1990. Impression management: A literature review and two-component model. *Psychological bulletin*, 107(1): 34.
- Leckelt, M., Küfner, A. C. P., Nestler, S., & Back, M. D. 2015. Behavioral processes underlying the decline of narcissists' popularity over time. *Journal of Personality and Social Psychology*, 109(5): 856-871.
- Lichtenstein, S., & Fischhoff, B. 1977. Do those who know more also know more about how much they know? *Organizational Behavior and Human Performance*, 20(2): 159-183.

- Lin, N. 1999. Social networks and status attainment. *Annual review of sociology*, 25(1): 467-487.
- Lin N, Vaughn JC, Ensel W. 1981. Social resources and occupational status attainment. *Social Forces* 59(4):1163-81.
- Lindsay, D. H., Brass, D. J., & Thomas, J. B. 1995. Efficacy-performing spirals: A multilevel perspective. *Academy of Management Review*, 20(3): 645-678.
- Locke, K. 2001. *Grounded theory in management research*. Thousand Oaks, CA: Sage Publications.
- Lord, R. G., Foti, R. J., & De Vader, C. L. 1984. A test of leadership categorization theory: Internal structure, information processing, and leadership perceptions. *Organizational behavior and human performance*, 34(3): 343-378.
- Logg, J., Haran, U., & Moore, D. A. 2018. Is overconfidence a motivated bias? Experimental evidence. *Harvard Business School Working Paper*, 18-099.
- Macenczak, L. A., Campbell, S., Henley, A. B., & Campbell, W. K. 2016. Direct and interactive effects of narcissism and power on overconfidence. *Personality and Individual Differences*, 91(2016): 113-122.
- Malmendier, U., & Tate, G. 2005. CEO overconfidence and corporate investment. *The Journal of Finance*, 60(6): 2661–2700.
- Malmendier, U., & Tate, G. 2008. Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics*, 89(1): 20-43.
- Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. 2001. A temporally based framework and taxonomy of team processes. *Academy of management review*, 26(3): 356-376.

- Marsden PV. Hurlbert JS. 1988. Social resources and mobility outcomes: a replication and extension. *Social Forces* 66(4): 1038-59.
- Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. 2008. Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of Management*, 34(3): 410-476.
- Maxwell, J. S., & Davidson, R. J. 2007. Emotion as motion: Asymmetries in approach and avoidant actions. *Psychological Science*, 18(12): 1113–1119.
- McGraw, A. P., Mellers, B. A., & Ritov, I. 2004. The affective costs of overconfidence. *Journal of Behavioral Decision Making*, 17(4): 281-295.
- Meikle, N. L., Tenney, E. R., & Moore, D. A. 2016. Overconfidence at work: Does overconfidence survive the checks and balances of organizational life?. *Research in Organizational Behavior*, 36: 121-134.
- Meindl, J. R., Ehrlich, S. B., & Dukerich, J. M. 1985. The romance of leadership. *Administrative science quarterly*, 30(1): 78-102.
- Michael, Donald N. 1973. *On Learning to Plan and Planning to Learn*. San Francisco: Jossey-Bass.
- Miles, M. B., & Huberman, A. M. 1994. *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage Publications.
- Moore, D. A., & Cain, D. M. 2007. Overconfidence and underconfidence: When and why people underestimate (and overestimate) the competition. *Organizational Behavior and Human Decision Processes*, 103(2): 197-213.
- Moore, D. A., & Healy, P. J. 2008. The trouble with overconfidence. *Psychological Review*, 115(2): 502–517.

- Moore, D. A., & Schatz, D. 2017. The three faces of overconfidence. *Social and Personality Psychology Compass*, 11(8): e12331.
- Morgeson, F. P., DeRue, D. S., & Karam, E. P. 2010. Leadership in teams: A functional approach to understanding leadership structures and processes. *Journal of Management*, 36(1): 5-39.
- Nave, G., Nadler, A., Zava, D., & Camerer, C. 2017. Single-dose testosterone administration impairs cognitive reflection in men. *Psychological science*, 28(10): 1398-1407.
- Niederle, M., & Vesterlund, L. 2007. Do women shy away from competition? Do men compete too much?. *The Quarterly Journal of Economics*, 122(3): 1067-1101.
- Nifadkar, S., Tsui, A. S., & Ashforth, B. E. 2012. The way you make me feel and behave: Supervisor-triggered newcomer affect and approach-avoidance behavior. *Academy of Management Journal*, 55(5): 1146-1168.
- Ong, C. W., Roberts, R., Arthur, C. A., Woodman, T., & Akehurst, S. 2016. The leader ship is sinking: A temporal investigation of narcissistic leadership. *Journal of Personality*, 84(2): 237-247.
- Ostroff, C., Atwater, L. E., & Feinberg, B. J. 2004. Understanding self-other agreement: A look at rater and ratee characteristics, context, and outcomes. *Personnel Psychology*, 57(2): 333–375.
- Owens, B. P., Wallace, A. S., & Waldman, D. A. 2015. Leader narcissism and follower outcomes: The counterbalancing effect of leader humility. *Journal of Applied Psychology*, 100(4): 1203.
- Parry, K. W. 1998. Grounded theory and social process: A new direction for leadership research. *The leadership quarterly*, 9(1): 85-105.



- Paulhus, D. L. 1998. Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing?. *Journal of personality and social psychology*, 74(5): 1197.
- Paulhus, D. L., & Williams, K. M. 2002. The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of research in personality*, 36(6): 556-563.
- Pearce, C. L. 2004. The future of leadership: Combining vertical and shared leadership to transform knowledge work. *The Academy of Management Executive*, 18(1): 47-57.
- Plous, S. 1993. *The psychology of judgment and decision making*. New York: McGraw-Hill.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5): 879–903.
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. 1990. Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The Leadership Quarterly*, 1(2): 107-142.
- Prasad, A., & Prasad, P. 1998. Everyday struggles at the workplace: The nature and implications of routine resistance in contemporary organizations. *Research in the Sociology of Organizations*, 15(2): 225-257.
- Quinn, R. E. 1996. *Deep change: Discovering the leader within*. San Francisco: Jossey-Bass.
- Ridgeway, C. L. 1984. Dominance, performance, and status in groups: A theoretical analysis. *Advances in group processes*, 1: 59-93.
- Ridgeway, C. L. 1987. Nonverbal behavior, dominance, and the basis of status in task groups. *American Sociological Review*, 683-694.
- Rosenberg, M. 1965. *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

- Rosenthal, S. A., & Pittinsky, T. L. 2006. Narcissistic leadership. *The Leadership Quarterly*, 17(6): 617-633.
- Sarin, S., & McDermott, C. 2003. The effect of team leader characteristics on learning, knowledge application, and performance of cross-functional new product development teams. *Decision Sciences*, 34(4): 707-739.
- Schaefer, P. S., Williams, C. C., Goodie, A. S., & Campbell, W. K. 2004. Overconfidence and the big five. *Journal of Research in Personality*, 38(5): 473-480.
- Schein, E. H. 1993. SMR forum: How can organizations learn faster? The challenge of entering the green room. *Sloan management review*, 34(2): 85.
- Schein, V. E. 2001. A global look at psychological barriers to women's progress in management. *Journal of Social issues*, 57(4): 675-688.
- Schönbrodt, F. D., Back, M. D., & Schmukle, S. C. 2012. TripleR: An R package for social relations analyses based on round-robin designs. *Behavior Research Methods*, 44(2), 455-470.
- Scott, J. C. 1990. *Domination and the Arts of Resistance*, New Haven and London.
- Scott, B. A., & Barnes, C. M. 2011. A multilevel field investigation of emotional labor, affect, work withdrawal, and gender. *Academy of management journal*, 54(1): 116-136.
- Sedgwick, P. 2014. Non-response bias versus response bias. *Bmj*, 348: g2573.
- Senge, P. M. 1990. *The Fifth Discipline: The Art and Practice of the Learning Organization*. Doubleday, New York.
- Shanock, L. R., Baran, B. E., Gentry, W. A., Pattison, S. C., & Heggestad, E. D. 2010. Polynomial regression with response surface analysis: A powerful approach for examining moderation and overcoming limitations of difference scores. *Journal of*

- Business & Psychology*, 25(4): 543–554.
- Shipman, A. S., & Mumford, M. D. 2011. When confidence is detrimental: Influence of overconfidence on leadership effectiveness. *The Leadership Quarterly*, 22(4): 649-665.
- Shrauger, J. S., & Terbovic, M. L. 1976. Self-evaluation and assessments of performance by self and others. *Journal of Consulting and Clinical Psychology*, 44(4): 564.
- Simon, M., & Houghton, S. M. 2003. The relationship between overconfidence and the introduction of risky products: Evidence from a field study. *Academy of Management Journal*, 46(2): 139–149.
- Sitkin, S. B. 1992. Learning through failure: the strategy of small losses. *Research in organizational behavior*, 14: 231-266.
- Sivasubramaniam, N., Murry, W. D., Avolio, B. J., & Jung, D. I. 2002. A longitudinal model of the effects of team leadership and group potency on group performance. *Group & Organization Management*, 27(1): 66-96.
- Soll, J. B., & Klayman, J. 2004. Overconfidence in interval estimates. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 30(2): 299.
- Sommerfeld, R. D., Krambeck, H. J., Semmann, D., & Milinski, M. 2007. Gossip as an alternative for direct observation in games of indirect reciprocity. *Proceedings of the national academy of sciences*, 104(44), 17435-17440.
- Sosik, J. J. 2001. Self-other agreement on charismatic leadership relationships with work attitudes and managerial performance. *Group & Organization Management*, 26(4): 484–511.

- Staw, B. M. 2016. Stumbling toward a social psychology of organizations: An autobiographical look at the direction of organizational research. *Annual Review of Organizational Psychology and Organizational Behavior*, 3: 1-19.
- Stone, D. N. 1994. Overconfidence in initial self-efficacy judgments: Effects on decision processes and performance. *Organizational Behavior and Human Decision Processes*, 59(3): 452–474.
- Strauss, A., & Corbin, J. 1998. *Basics of qualitative research: Procedures and techniques for developing grounded theory*. Thousand Oaks, CA: Sage Publications.
- Svenson, O. 1981. Are we all less risky and more skillful than our fellow drivers?. *Acta psychologica*, 47(2): 143-148.
- Taylor, S. E., & Brown, J. D. 1988. Illusion and well-being: a social psychological perspective on mental health. *Psychological Bulletin*, 103(2): 193.
- Taylor, S. E., & Brown, J. D. 1994. Positive illusions and well-being revisited: Separating fact from fiction. *Psychological Bulletin*, 116(1): 21–27.
- Tenney, E., Meikle, N., Hunsaker, D., Moore, D. A., & Anderson, C. 2018. Is overconfidence a social liability? The effect of verbal versus nonverbal expressions of confidence. *Accepted for Publication in the Journal of Personality and Social Psychology*.
- Tepper, B. J. 2000. Consequences of abusive supervision. *Academy of Management Journal*, 43(2): 178-190.
- Tepper, B. J., Uhl-Bien, M., Kohut, G. F., Rogleberg, S. G., Lockhart, D. E., & Ensley, M. D. 2006. Subordinates' resistance and managers' evaluations of subordinates' performance. *Journal of Management*, 32(2): 185–209.
- Thomas-Hunt, M. C., Ogden, T. Y., & Neale, M. A. 2003. Who's really sharing? Effects of

- social and expert status on knowledge exchange within groups. *Management Science*, 49(4): 464-477.
- Tooby, J., & Cosmides, L. 2008. The evolutionary psychology of the emotions and their relationship to internal regulatory variables. In M. Lewis, J. M. Haviland- Jones & L. F. Barrett (Eds.), *Handbook of emotions*: 114–137. New York: Guilford.
- Tost, L. P., Gino, F., & Larrick, R. P. 2013. When power makes others speechless: The negative impact of leader power on team performance. *Academy of Management Journal*, 56(5): 1465-1486.
- Tsui, A. S., & Ohlott, P. 1988. Multiple assessment of managerial effectiveness: Interrater agreement and consensus in effectiveness models. *Personnel Psychology*, 41(4): 779–803.
- Uhl-Bien, M., Marion, R., & McKelvey, B. 2007. Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era. *The leadership quarterly*, 18(4): 298-318.
- Uhl-Bien, M., Riggio, R. E., Lowe, K. B., & Carsten, M. K. 2014. Followership theory: A review and research agenda. *The Leadership Quarterly*, 25(1): 83-104.
- Van Der Veegt, G. S., & Bunderson, J. S. 2005. Learning and performance in multidisciplinary teams: The importance of collective team identification. *Academy of Management Journal*, 48(3): 532-547.
- Van der Zee, K. I., Bakker, A. B., & Bakker, P. 2002. Why are structured interviews so rarely used in personnel selection?. *Journal of Applied Psychology*, 87(1): 176.
- Von Hippel, W., & Trivers, R. 2011. Reflections on self-deception. *Behavioral and Brain Sciences*, 34(1): 41-56.

- Van Velsor E., Taylor S., Leslie J. B. 1993. An examination of the relationships between self-perception accuracy, self-awareness, gender and leader effectiveness. *Human Resource Management*, 32(2 & 3): 249–263.
- Van Zant, A. B., & Moore, D. A. 2013. Avoiding the pitfalls of overconfidence while benefiting from the advantages of confidence. *California Management Review*, 55(2): 5-23.
- Wageman, R., Hackman, J. R., & Lehman, E. 2005. Team diagnostic survey: Development of an instrument. *The Journal of Applied Behavioral Science*, 41(4): 373–398.
- Watson, D. C. 2011. Gossip and the self. *Journal of applied social psychology*, 41(7): 1818-1833.
- Wedekind, C., & Milinski, M. 2000. Cooperation through image scoring in humans. *Science*, 288(5467): 850-852.
- Weiss, H. M., Suckow, K., & Cropanzano, R. 1999. Effects of justice conditions on discrete emotions. *Journal of Applied Psychology*, 84(5): 786.
- Williams, D. G. 1992. Dispositional optimism, neuroticism, and extraversion. *Personality and Individual Differences*, 13(4): 475–477.
- Yammarino, F. J., & Atwater, L. E. 1997. Do managers see themselves as other see them? Implications of self-other rating agreement for human resources management. *Organizational Dynamics*, 25(4): 35–44.
- Yukl, G. A. 2002. *Leadership in organizations*. Upper Saddle River, NJ: Pearson.
- Zaccaro, S. J., Blair, V., Peterson, C., & Zazanis, M. 1995. Collective efficacy. In J. Maddux (Eds.), *Self-efficacy, adaptation, and adjustment*: 305-328. Springer, Boston, MA.
- Zaccaro, S. J., Rittman, A. L., & Marks, M. A. 2002. Team leadership. *The Leadership Quarterly*, 12(4): 451–483.

## APPENDICES, FIGURES, & TABLES

**Table 1**

Means, standard deviations, and intercorrelations among all variables

Variables	M	SD	1	2	3
1. Leadership self-rating	3.98	0.44	(.79)		
2. Leadership team rating	3.91	0.45	0.34**	(.91)	
3. Team performance	5.30	0.63	0.05	0.48***	(.89)

*n* = 157; \**p* < .05 \*\**p* < .01 \*\*\**p* < .001 (two-tailed).

Note: Cronbach's alphas are in parentheses on the diagonal.

**Table 2**

Polynomial regression of team performance on leader self-rating leader team rating discrepancy

Variables	Team Performance	
Constant	5.21***	(0.18)
<i>Terms</i>		
$b_1$ Leadership self-rating	-0.82*	(0.32)
$b_2$ Leadership team rating	0.55*	(0.28)
$b_3$ Leadership self-squared	0.12	(0.20)
$b_4$ Leadership self X team	0.43	(0.31)
$b_5$ Leadership team squared	-0.15	(0.14)
$R^2$	0.26	
<i>Congruence line (X=Y)</i>		
Slope ( $b_1 + b_2$ )	-0.27	(0.41)
Curvature ( $b_3 + b_4 + b_5$ )	0.39	(0.22)
<i>Incongruence line (X = -Y)</i>		
Slope ( $b_1 - b_2$ )	-1.36**	(0.45)
Curvature ( $b_3 - b_4 + b_5$ )	-0.47	(0.56)

$n = 157$ ; \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$  (two-tailed).

Note: unstandardized regression coefficients reported (standard errors in parentheses).



**Table 3**

Illustrative supporting data for each second-order theme

Aggregate dimensions	Second-order themes	Representative first-order data
Withdrawing	Shut down	<p><i>"Many of the teammates became quiet and let this person take charge. Therefore their ideas were not listened to and the whole morale of the team dropped." [40]</i></p> <p><i>"The team i was on grew impatient and was not interested in the project any longer. It made the project last longer than we really wanted as nobody wanted to put forth any effort. As team members became withdrawn, the team leader just went ahead and did what he wanted to do." [61]</i></p>
	Ignore	<p><i>"Over time the team started tuning out the leader and didn't take his suggestions seriously." [14]</i></p> <p><i>"Nobody was interested in our perceptions of our productivity because higher ups thought he was good for morale. So we mostly ignored it to the degree we could. We lost about three hours a week of work because of his ridiculous behavior." [55]</i></p>
	Comply	<p><i>"We were overwhelmed and knew it wasn't going to work out but did it anyway." [4]</i></p> <p><i>"The team obeyed sullenly. He was the one in charge, and ultimately he had the decision-making role." [68]</i></p>
Coping	Gossip	<p><i>"The team just kind of took it in stride during the presentation, but many of us talked about it privately after the event." [48]</i></p> <p><i>"Our team acted nice in front of her, but no one actually respected what she said. We complained when she wasn't around. We also did our own research to figure out how to make our project work." [24]</i></p>
	Workaround	<p><i>"We mainly avoided asking the managers questions when possible and just worked things out within ourselves." [27]</i></p> <p><i>"We all understood our frustrations with the situation. We helped each other along. We would listen to what the manager would say, nod a yes, but go about discussing the situation within the team to try out things that could solve the technical issue." [21]</i></p>
	Confront	<p><i>"Most of the team just stayed silent but it was uncomfortable for everyone and some of use spoke up but it was pretty demotivating and brought the mood down noticeably, or completely rather." [30]</i></p> <p><i>"There were a few people that kind of shut down her suggestions but other people like myself tried to bring her up to speed. Letting her know what research we had actually done and why we felt like different things would work." [36]</i></p>

**Table 4**  
2 X 2 between subjects design for Study 3

Competence	Confidence	
	High	Low
Low	High confidence – low competence (overconfident)	Low confidence – low competence (well-calibrated)
High	High confidence – high competence (well-calibrated)	Low confidence – high competence (underconfident)

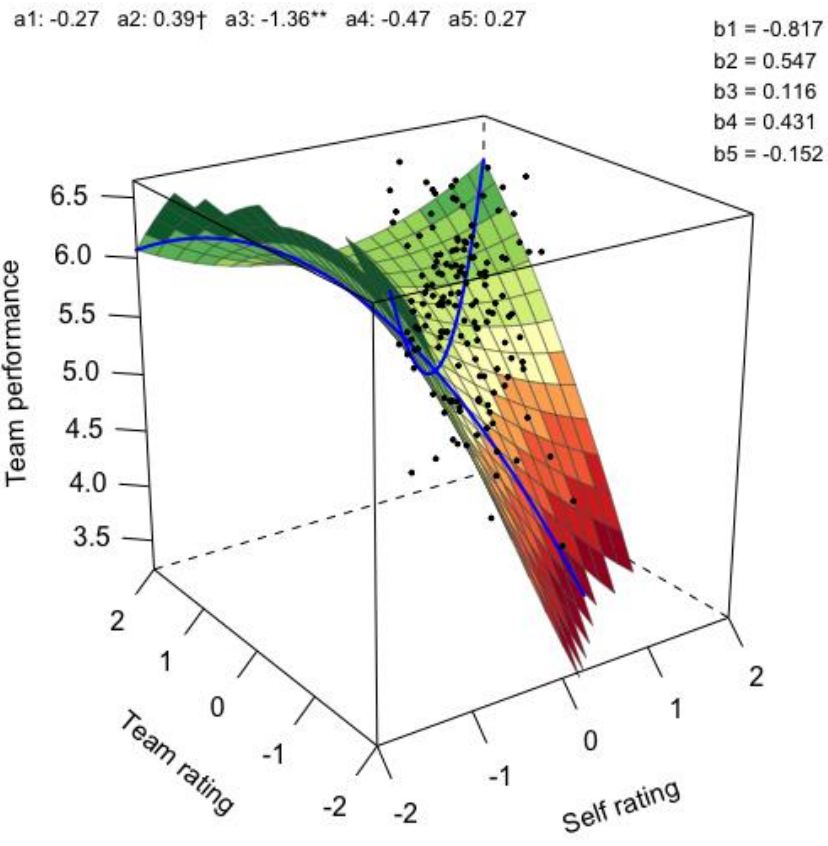
**Table 5**

Means, standard deviations, and intercorrelations among all variables for Study 4

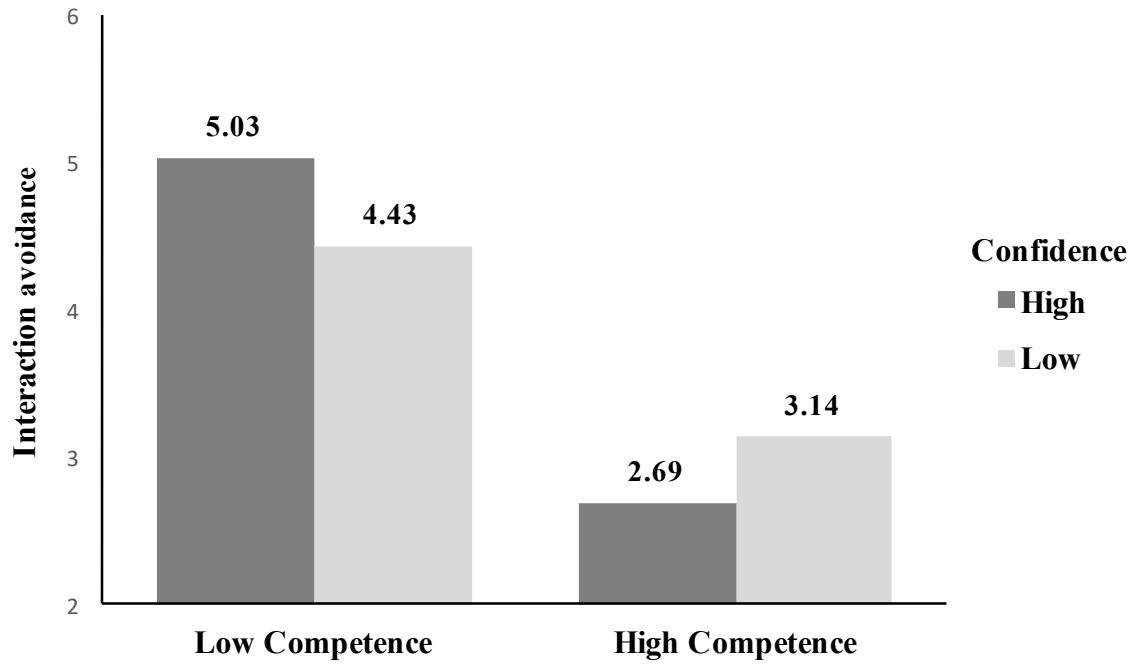
Variables	M	SD	1	2	3
1. Leader overconfidence	1.57	0.72			
2. Interaction avoidance	1.75	0.44	0.36**	(.73)	
3. Team learning	5.08	0.46	-0.18	-0.33*	(.63)
4. Team performance	3.18	0.18	-0.42**	-0.07	0.40**

$n = 55$ ; \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$  (two-tailed).

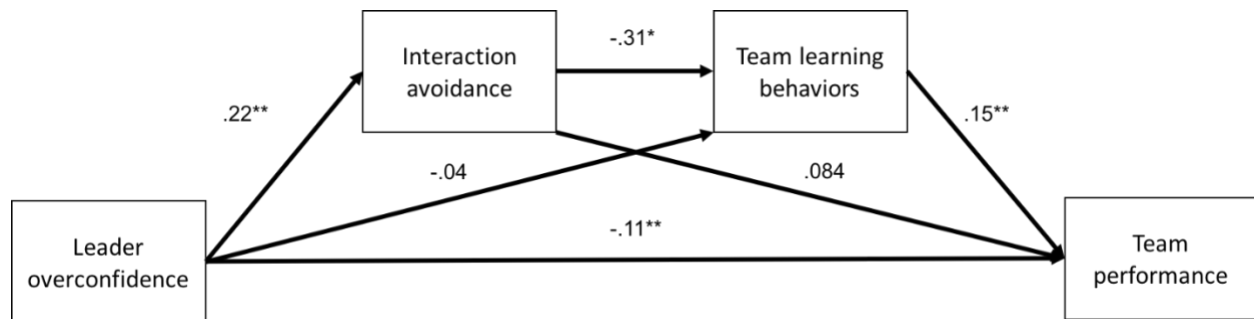
Note: Cronbach's alphas are in parentheses on the diagonal.



**Fig. 1.** Team performance as predicted by leader self-rating leader team rating discrepancy



**Fig. 2.** Interaction between confidence and competence on interaction avoidance.



**Fig. 3.** The relationships between leader overconfidence, interaction avoidance, team learning, and team performance, Study 4. Coefficients are unstandardized.

**Appendix A**  
**Study 1 Leadership Questions**

1. Our team leader actively encourages debate and dissent on important issues.
2. Our team leader creates a supportive climate that encourages us to take risks and learn from mistakes.
3. Our team leader asks for feedback on her/his performance.
4. Our team leader challenges me to achieve more than I believe I'm capable of achieving.
5. Our team leader makes me feel valued and respected.
6. Our team leader demonstrates that it's ok to admit and learn from mistakes.
7. Our team leader has helped create a compelling vision of the future.
8. Compared to his/her peers, our team leader is effective in securing the resources we need to be successful.
9. Our team leader allows ineffective individuals to remain on the team. \*
10. Our team leader manages the reputation of our team with key stakeholders.
11. Our team leader is very transparent on issues and decisions that impact the team.
12. Our team leader manages expectations with our key stakeholders.
13. Our team leader allows destructive behaviors to occur on our team. \*
14. Our team leader forgets to communicate important information. \*

\*Reverse coded

**Study 1 Stakeholder Questions**

1. This team's goals are aligned with my expectations.
2. This team proactively communicates with me.
3. The interactions I have with this team are appropriate.
4. This team achieves high quality results in a timely manner.
5. Compared to the other teams I've had experience with, this team ranks in the: (scale ranging from below to above average).

**Appendix B**  
**Additional analyses**

**Table 6**  
Intercorrelations among additional analyses variables for Study 4

Variables	1	2	3	4	5	6	7	8	9
1. Leader overconfidence									
2. Leader influence	.77**								
3. Interaction avoidance	.36**	.36*							
4. Team learning	-0.18	-.35*	-.33*						
5. Team effort	-.27*	-.40**	-.36**	.42**					
6. Team satisfaction	-.33*	-.41**	-.50**	.41**	.77**				
7. Team perf. (team-rated)	-.28*	-0.27	-0.15	.27*	.75**	.74**			
8. Team perf. (grades)	-.42**	-.43**	-0.08	.40**	0.23	0.09	0.19		
9. Gender	.49**	.35*	0.26	-.43**	-0.13	-0.21	-0.12	-0.25	
10. Count of gender	.37**	0.28	0.23	-.36**	-0.14	-0.20	-0.13	-0.16	.91**

$n = 55$ ; \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$  (two-tailed)