Leadership in Applied Psychology: Three Waves of Theory and Research

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Although in the early years of the *Journal* leadership research was rare and focused primarily on traits differentiating leaders from nonleaders, subsequent to World War II the research area developed in 3 major waves of conceptual, empirical, and methodological advances: (a) behavioral and attitude research; (b) behavioral, social-cognitive, and contingency research; and (c) transformational, social exchange, team, and gender-related research. Our review of this work shows dramatic increases in sophistication from early research focusing on personnel issues associated with World War I to contemporary multilevel models and meta-analyses on teams, shared leadership, leader-member exchange, gender, ethical, abusive, charismatic, and transformational leadership. Yet, many of the themes that characterize contemporary leadership research were also present in earlier research.

Keywords: categorization theory, gender, leadership, teams, traits

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This review focuses on leadership research that played a key role in fostering the field's development, with an emphasis on articles published in *The Journal of Applied Psychology* (hereafter the *Journal*). Specifically, we review the interactive development of leadership theories, methodologies, and practice. Given the large volume of leadership research published over the previous 100 years in the *Journal* (see Figure 1), this review is selective, emphasizing those publications that represented or sparked unique turns and conceptual developments in the literature, many of which were highly cited and published in the *Journal*. Table 1 identifies and briefly describes these 17 seminal articles.[1]

Like later research, the earliest leadership research in the *Journal* was influenced by context and emerging methodology, in this case the context of World War I and emerging methodology related to U.S. officer testing, and later, selection issues. But as shown in Figure 1, it was not until after World War II that leadership research received much attention in the *Journal*. The next 70 years witnessed three major waves of sustained investigation, reflecting interest in leadership that was catalyzed by theoretical and methodological developments, as well as by contextual factors such as war, dramatic growth of new industries, recession, globalization, technology, ethical concerns, the recognition that leadership could have a dark as well as bright side, and the diversification of the workforce particularly in terms of gender. In contrast to its limited beginnings, leadership research in the new millennium appears frequently in the *Journal*, reflecting a plethora of theories, methods, and applications.

The articles that we believe had a critical impact on leadership trends in the *Journal* are organized in Table 1 in terms of their relevance to each of the three waves of leadership research shown in Figure 1. Determining whether an article had an important influence in starting or stopping trends in research was a subjective task that drew on our combined experience in the leadership field. We also focused on which article was first in an area, the number of citations an article received, and also the fit with emerging trends in psychology and context in general. Although this approach adds clarity and helps us understand the development of leadership waves, it also oversimplifies the complex and interdependent factors associated with historical changes and the emergence of new work on leadership.

The critical articles identified in Table 1 generally emphasized new approaches or methodologies, and often occurred in clusters, reflect-

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[1] See the online appendix to this article for a list of the 100 most highly cited journal articles addressing leadership based on a Web of Science Search conducted in May, 2015.
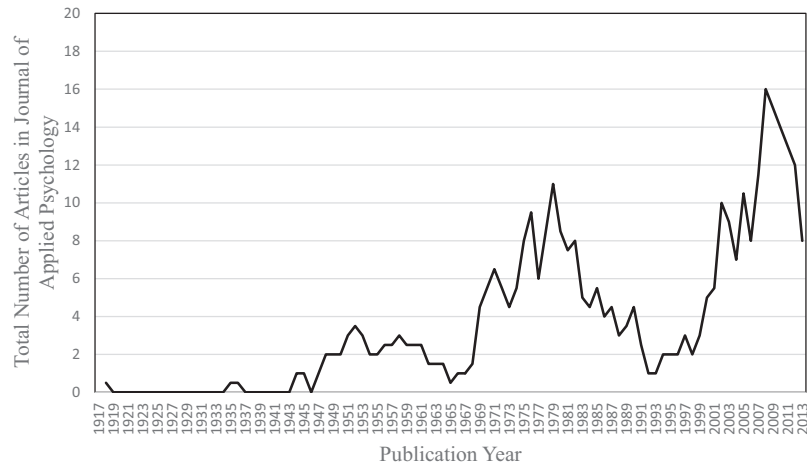
Figure 1. Two-year moving average of yearly frequency for articles on leadership in the *Journal of Applied Psychology.*

ing a shifting orientation in psychology. For example, Stogdill and Shartle (1948) argued that leadership research should shift from focusing on leadership problems or leaders' personalities to "a process of interaction between persons who are participating in *goal oriented* group activities" (p. 287, italics in original). Bass's (1949) leaderless group discussion techniques applied this idea to examining leadership behavior in interacting, task-oriented groups, and Fleishman (1953a) used factor analysis to develop leader behavior scales with broad relevance. All three of these approaches emphasized explaining leadership in terms of social behaviors, which fits with the predominant behavioral orientation of psychology in the 1950s and 60s, that characterized the first wave of leadership research.

In contrast, Schein (1973) emphasized the importance of rater cognitions and gender role stereotypes, demonstrating that characteristics thought to describe men in general were more similar to an effective middle manager category than characteristics thought to describe women in general. Also, Eden and Leviatan (1975) stressed that behavioral ratings could be contaminated by the implicit theories of raters, again emphasizing the cognitive component of leadership perceptions. Both articles reflected psychology's movement by the mid-1970s to emphasizing cognitive explanations, which were integral to the second wave of leadership research.

The third wave of leadership reflected even more diverse views, focusing on individuals, dyads, teams, and leaders as agents of change. It also recognized that trust was a key social process that supported social exchanges at any level (Dirks & Ferrin, 2002). Research on dyadic exchanges took into account the joint influence of supervisors and followers on leadership (Gerstner & Day, 1997; Settoon, Bennett, & Liden, 1996). Focusing on teams and integrating the prior behavioral and cognitive foci, Marks, Zaccaro, and Mathieu (2000) emphasized the interplay among team communication processes, routine versus novel task characteristics, and mental models of team members in determining performance, sparking a series of team-oriented leadership studies. Research also focused at the organizational business unit or large group level (i.e., Army platoons), and the expanding effects of transformational or charismatic leaders on subsequent unit perfor-

mance (Bass, Avolio, Jung, & Berson, 2003; Howell & Avolio, 1993).

This multilevel focus in the third wave was complemented by research that applied meta-analytic techniques to predict leadership perceptions and associated performance (e.g., Bono & Judge, 2004; Judge, Bono, Ilies, & Gerhardt, 2002; Judge & Piccolo, 2004). This technique was introduced to researchers in applied psychology (Schmidt & Hunter, 1977), and it was subsequently applied to leadership research published in the *Journal* (e.g., Lord, De Vader, & Alliger, 1986). Meta-analysis can help to close out productive lines of research by providing a definitive summary of prior findings in an area. However, more typically, it identifies new issues or shows that conventional wisdom is inconsistent with empirical findings, and thereby sparks new lines of research. A meta-analysis can also provide a touchstone of generalizable findings for subsequent research.

In the following section, we describe early leadership research; then we turn to the three major waves of conceptual and methodological contributions summarized in Figure 1, highlighting the interdependence of theory, methodology, and context in sustaining research interest in leadership. Although we emphasize the role of pioneering articles published in the *Journal* in explaining leadership trends, we should acknowledge that leadership research is produced by groups of researchers who used psychological theory and methods to address applied problems. Thus, the research reflects trends and concerns in society in general, which has changed substantially over the last 100 years. The final section addresses emerging trends, critiques, and questions that we believe are likely to motivate future leadership research.

The Trait Paradigm and the Early Years

Leadership-related articles published in the earliest volumes of the *Journal* reflected interest in intelligence and individual differences. This work stemmed from Lewis Terman's (1916) development of the Stanford-Binet intelligence test and his application of this method to testing Army personnel in the Army Alpha project. An article by Bingham (1919), an alumnus of the Army Alpha

Table 1
Journal of Applied Psychology Publications Influencing the Three Waves of Leadership Research

Wave	Seminal JAP articles
First Wave (1948–1961)	• Stogdill & Shartle (1948): Initial description of the Ohio State leadership program and switch to focus on leadership behavior.
• Behavioral style approaches	• Bass (1949): First published study to introduce leaderless group discussions.
	• Fleishman (1953a): Early factor analysis of a leader behavior questionnaire, supporting consideration and initiating structure dimensions.
Second Wave (1969–1989)	• Megargee (1969): Early study on gender differences in leader emergence.
• Gender and leadership	• Schein (1973): Early study on gender and leader stereotypes.
• Social cognitive theories	• Eden & Leviatan (1975): Introduced term "implicit leadership theories" noting that leader behavior ratings reflected follower cognitive schemas.
• Contingency/situational approaches	• [a]Lord, De Vader, & Alliger (1986): First meta-analysis on leadership in the Journal; helped revitalize leader trait perspectives.
• Early transformational leadership	• [a]Hater & Bass (1988): First article in the Journal on transformational leadership theory.
Third Wave (1999–2007)	• [a]Howell & Avolio (1993): Linked transformational leadership to business unit performance.
• Meta-analyses—traits and leader styles revisited	• [a]Settoon, Bennett, & Liden (1996): Early use of nested structural equation models in leadership research; linked LMX to follower organization citizenship behavior.
• LMX	• [a]Gerstner, & Day (1997): First meta-analysis to provide a comprehensive quantitative review of the LMX literature.
• Team leadership	• [a]Marks, Zaccaro, & Mathieu (2000): Linked functional leadership behavior to team performance and adaptation through mediating state of shared mental models.
• Trust	• [a]Dirks & Ferrin (2002): Meta-analysis of the relationship between trust in leadership and various outcomes, antecedents, and correlates.
• Transformational and Charismatic leadership	• [a]Judge, Bono, Ilies, & Gerhardt (2002): Meta-analysis linking Big Five personality attributes to leadership.
	• [a]Bass, Avolio, Jung, & Berson (2003): Linked transformational leadership to team performance through mediating states of team potency and cohesion.
	• [a]Judge & Piccolo (2004): Most extensive meta-analysis of the transactional and transformational leadership literature.
	• [a]Bono & Judge (2004): Meta-analysis of personality and transformational leadership.

[a] One of the top 25 most cited leadership articles published in JAP.

project, provided a brief but broad summary of this project that included not only the use of intelligence tests in studies of Army officers, but also the development of procedures for classifying personnel and specifying leadership duties and responsibilities across different positions. In related research, Kohs and Irle (1920) examined intelligence and leadership that were both rated by professors at Reed College when students entered the military. The findings were mixed, with intelligence linked to rank among officers who stayed a short time in the Army, but not as strongly among longer serving officers. In addition, a moderate correlation ($r = .52$) emerged between ratings of intelligence and leadership. On the basis of a project examining associations between intelligence and indicators of business success, Bingham and Davis (1924) concluded that "superiority in intelligence, above a certain minimum, contributes relatively less to business success than does superiority in several non-intellectual traits of personality" (p. 22). Thus, both the value and limitations in using intelligence tests to predict leadership were evident in this early work published in the *Journal*.

With World War I fostering interest in measuring personality, the first personality assessment tool (Woodworth, 1917, 1919) was used to assess so-called *temperamental fitness* for combat. Later, researchers began to focus on the links among personality, lead-

ership, and successful outcomes. For example, Dashiell (1930) assessed leadership as one among several personality variables that he related to success in several professions. Flemming (1935) used factor analysis to determine if particular clusters of traits were associated with leadership ability. Although he identified four types of leaders, he argued that "a personality embracing qualities from among all the types" (p. 605) was most likely to be associated with leadership. This study was noteworthy for its application of more sophisticated statistical methods in the form of factor analysis, performed by hand calculations, to uncover multiple groupings of leader traits. In the next decade, however, critiques of this trait-based approach to leadership emerged, fueled in part by the unwieldy number of traits thought to be associated with leadership.

Enduring Themes in Early Leadership Books

Some of the influential early publications on leadership were specialized books addressing themes such as leadership development, traits of leaders, leader/follower systems, and leadership functions. The earliest of these was a self-help book (Kleiser, 1923) comprising 28 self-development exercises for enhancing personal characteristics thought to be related to effective leadership, such as self-confidence, willpower, and personal magnetism.

The first specialized text linking leadership with psychology, titled *Psychology of Leadership* (Tralle, 1925), highlighted the importance for effective leadership of a so-called developed personality, which could be "cultivated and strengthened" (p. 50). In a empirical effort to identify traits underlying effective leadership, Craig and Charters (1925) examined the personal attributes of leaders in industrial settings based on interviews with 110 successful executives. From these interviews, the authors derived 15 qualities, which they grouped into the categories of intelligence and skill, forcefulness, teaching ability, health and nervous strength, kindliness, fairness, and sensitivity to the reactions of followers.

In a version of the so-called Great Man approach to leadership, Bogardus (1934) identified the purportedly 100 greatest world leaders along with their respective accomplishments. What sets this particular book apart from others published around this time was the claim that "every person not only has leadership traits but also has what may be called *followership* traits" (p. 3, italics in original). In this approach, which emphasizes the interaction of leadership traits of one person with the followership traits of others, leadership reflects "personality in action under group conditions" (p. 3). The recognition that both leaders and followers are necessary for leadership was an important insight that did not receive much further attention in the *Journal* for another three decades.

A classic pre-WWII text that proved to be highly influential elaborated the functions of the executive (Barnard, 1938), foreshadowing later work on executive leadership and vision. Barnard was an executive who served as President of the New Jersey Telephone Company and later as President of the Rockefeller Foundation. His treatise emphasized cooperative action in which leadership functions defined a purpose or goal for a collective and generated commitment among followers in support of that end. This theme thus reinforced Bogardus's (1934) insight in that both leaders and followers play important and interdependent roles in generating what constituted leadership and later on this paper its codevelopment.

The Backlash to Trait Perspectives

By the 1940s, the body of published research on the personal attributes of leaders was sufficiently large to prompt the publication of several prominent reviews. Early reviews argued for the importance of traits for leadership, whereas later reviews were increasingly skeptical and argued for new approaches. Advancing the leader trait theme, Bird (1940) listed 79 such traits culled from a review of about 20 studies. However, in the following year, Murphy (1941) argued that "leadership study calls for a situational approach. . . . Leadership does not reside in a person" (p. 641). Later, Jenkins (1947) reviewed studies related to leader selection mainly in military settings and concluded that "no single trait or group of characteristics . . . sets off the leader from the members of the group" (pp. 74–75). He emphasized the situational specificity of leadership traits and the tendency of leaders to share characteristics with group members. In a review that was very influential in moving leadership researchers away from leader traits toward a behavioral perspective, Stogdill (1948) argued that mainly situational factors determine whether someone is seen as a leader, even though leader traits carry some weight.

Although the shift from trait to behavioral approaches was evident in the *Journal*'s content in the 1940s, the earlier part of this decade featured research primarily in the trait-oriented Zeitgeist. For example, Harrell (1940) reported significant correlations between intelligence and success in supervisory leadership positions, although measures of personality and social intelligence did not display similar effects. Also, Roslow (1940) found that measures of personality and social attributes differentiated leaders from nonleaders. In one of the *Journal*'s more prominent contributions to the study of leader traits, researchers compared leaders and nonleaders on the Benreuter and Flanagan personality measure and found that leaders were less neurotic and more dominant, self-sufficient, self-confident, and extraverted than nonleaders (Hanawalt & Richardson, 1944; Richardson & Hanawalt, 1944). In a subsequent *Journal* article, Richardson (1948) used these and other data to construct item-weighted Adult Leadership Scales.

By the end of this decade, researchers at The Ohio State University had already begun to transform the terrain of leadership studies by emphasizing the study of leaders' behaviors. In an initial description of this research program in a seminal article (see Table 1), Stogdill and Shartle (1948) stated that the aim of this effort was "to develop improved methodology for studying leadership, to establish criteria for judging it, and to prepare information and techniques which may be useful in selecting and training persons who may occupy leadership positions in various types of organization structures" (p. 286). These themes signaled a shift in focus from the individual leader to the behavior of individuals in leadership roles. Indeed, Stogdill and Shartle noted that one of the steps in their methods was "to discover what leaders do" (p. 287) rather than who they are.

Extending this theme, Bernard Bass (1949) began a research program at Ohio State that systematically examined the leadership group discussion technique. It became an influential article in the development of the leadership field (see Table 1). This approach entailed observing group members solving problems, evaluating them on several categories of leadership behaviors, and eliciting peer nominations of members' leadership potential. This technique provided a relatively direct and behavior-based assessment tool for selecting potential leaders, serving as a forerunner of the assessment centers that appeared 15 years later. This research also initiated prominent lines of work on leaderless group discussions and peer nominations, which appeared in the *Journal* over the next 10 years. This technique is still used today to study perceptions of emergent leadership in groups.

The First Wave: Leadership Behavior and Follower Attitudes

The decade of the 1950s saw an explosion of leadership research in the *Journal*, galvanized by the seminal contributions of the Ohio State Research Group (see Figure 1 and Table 1). In Ghiselli's (1951) description of six new ideas in industrial psychology, three were directly or indirectly related to leadership. One of these was the Ohio State research effort on measuring leadership behavior and using it to predict a variety of outcomes The other new ideas were Lewin's (1947) work on motivational forces and Katz's (1949) research on employee morale.

Behavioral approaches based on coding interactions in problem-solving groups were also developed during this period by Bales

(1950), who grouped 12 types of behaviors into task and socio-emotional functions. Bales' task versus socioemotional distinction also provided a basis for organizing observational coding of functional leadership behaviors (Lord, 1977), and relating them to social power and leadership perceptions. Echoing the earlier theme of Bogardus (1934), this line of research separated functional behavior from formal leadership roles, emphasizing that all group members could fulfill necessary leadership functions.

Pursuing a similar behavioral focus, the Ohio State research program published in the *Journal* emphasized questionnaire-based measures of leader behavior, typically completed by a leader's followers. Fleishman (1953a) reported results from a factor analysis of the Supervisory Behavior Description Questionnaire, which yielded the primary leader behavior dimensions of Initiating Structure (e.g., clarifying roles, specifying rules and procedures) and Consideration (e.g., being friendly and supportive to followers). These two dimensions corresponded to Bales' task versus socioemotional distinction, but they described actions more relevant to hierarchical leadership in applied settings. They dominated leadership research until the advent of charismatic and transformational leadership models beginning in the mid-1980s (e.g., Bass, 1985; Judge, Piccolo, & Ilies, 2004) based on earlier work by a political scientist named James McGregor Burns (1978).

Another key article in this period by Cleven and Fiedler (1956) introduced a measure of task versus social orientations based on assessments by foremen rating, "the man with whom he can work best, and the man with whom he can work least well" (p. 313). They reported that a greater difference in perception of one's most and least liked coworkers on these two dimensions were associated with higher group effectiveness. This noteworthy study foreshadowed Fiedler's (1964) prominent contingency model and his development of the Least Preferred Coworker measure of interpersonal orientation.

Several *Journal* articles published in the 1950s linked follower attitudes and outcomes with their ratings of leadership behavior (e.g., Bass, 1956; Fleishman, 1953b). These studies generally indicated that interpersonal consideration behaviors were associated with more positive attitudes and outcomes, whereas the correlates of task structuring behaviors were more varied. These types of studies established the framework for the contingency and situation-based models that emerged in the 1960s-70s, which focused on how the situation moderates the relationship between leader behaviors and follower attitudes, motivation, and outcomes.

Observer ratings of leader behavior also led to two other prominent research lines in the *Journal* during the 1950s. Bass continued his work on leaderless group discussions by focusing on various parameters of this technique, such as group size, type of problem, and participant prestige that could influence leadership ratings (e.g., Bass & Norton, 1951; Bass & Wurster, 1953). He also examined the overall reliability and validity of this technique for assessment of leader potential (Bass, Klubeck, & Wurster, 1953). Collectively, these studies helped advance leaderless group discussion as a measurement tool and identified parameters that could influence observer-based ratings of leadership. Continuing this theme, Hollander (1954, 1957) found significant associations between peer leadership nominations and several leadership criteria. Although this research helped validate the use of this assess-ment approach, it also presaged a focus on both the perceptions of leadership and the qualities of followership.

The dramatic leap in leadership research in the *Journal* in the 1950s fostered several major advances and foreshadowed the primary themes in leadership research over the next 30 years. Prominent leader behavior scales were developed and factor analyzed to guide scale revisions. Subsequently, the association of leadership behavior with follower attitudes spawned contingency and situational theories. The leaderless group discussion research paradigm initiated by Bass (1949) continued to be elaborated in subsequent articles, thus contributing to the assessment center approaches that emerged in the 1960s. Another then-doctoral student at Ohio State, C. G. Browne, published a series of studies on executive leadership examining the social linkages these leaders created (Browne, 1949, 1950, 1951). His application of a sociometric pattern to graph the relationships among 24 tire and rubber company executives in terms of whom they spent the most time with in getting their work done was a harbinger of more rigorous social networks research on leadership that would come decades later (e.g., Carter, DeChurch, Braun, & Contractor, 2015). The role of followers' leadership perceptions, rooted in Hollander's (1958) work, served as a foundation for subsequent research on social-cognitive models of leadership. Thus, the body of leadership research published in the *Journal* in the 1950s provided a strong and enduring impetus for many later streams of inquiry.

The techniques developed in the 1950s became a cornerstone for assessment centers, which emphasized the multimethod measurement of leadership traits and behavioral styles. Since its inception, millions of individuals have been evaluated in assessment centers using interviews, in-basket tests, behavioral simulations such as leaderless group discussions, as well as standardized personality and motive measures (Bray, 1982). The most famous assessment center-based research is the AT&T management progress study, which assessed 422 participants and followed their progress over 20 years. Career progression to formal leadership roles was predicted from projective measures of achievement motivation and a variety of other personality variables. Leadership motivation and status ambition motives were particularly important to predictions of career progression (Bray, 1982). For example, research using a projective personality measure called the Thematic Apperception Test to assess 237 managers at AT&T found that promotions obtained eight and 16 years later were associated with a specific leadership motive pattern. This pattern was moderate to high on power, low on need for affiliation, and high on self-control (i.e., activity inhibition; McClelland & Boyatzis's, 1982). Leadership motivation was also the focus two decades later when self-report measures were developed to assess different components of a leader's motivation to lead (Chan & Drasgow, 2001).

To summarize, the first wave of substantial leadership research was galvanized by the combination of several trends reflected in the *Journal* and highlighted in Table 1. After the initial fascination with identifying various leadership traits, attention turned toward understanding and measuring leader behaviors. This culminated in the development and application of interpersonal measures of emergent leadership such as the leaderless group discussion, as well as relatively sophisticated, multimethod approaches adopted in assessment centers that are still used today to assess leadership potential and ability.

The Second Wave: Extensions and Limitations of Leadership Style Approaches

Behavioral and Social-Cognitive Approaches

Leadership research in 1970s and 1980s further benefited from advances in social science theory and methodology. These advances helped researchers understand the limitations of questionnaire measures of leader behavior, which often reflect not only the behavior of leaders, but also the cognitive schema of raters. Schein's (1973) generative research on the cultural masculinity of the leader role initiated an ongoing line of research on gender and leadership, which is covered in a later section of this review. Research in the *Journal* also indicated that participants were not very accurate in describing behavior (Gilmore, Beehr, & Richter, 1979; Ilgen & Fujii, 1976) and that the factor structure of measures presumed to assess behavior could be replicated even when raters had no information regarding a leader's behavior (Eden & Leviatan, 1975). The Eden and Leviatan publication introduced the term *Implicit Leadership Theories* (ILTs) to describe the effects of raters implicit knowledge structures on ratings of leadership behavior, and initiated a line of research that is still active today. Relevant ILT research in the *Journal* included findings by Weiss and Adler (1981) showing that ILTs did not depend on the cognitive complexity of raters, and results of Epitropaki and Martin (2004) demonstrating that implicit leadership theories were stable over time. These are important findings in the development of the leadership field in showing that the factor structure of behavioral measures of leadership reflected the implicit theories of raters and not necessarily the exact behavioral patterns of leaders. They raised significant and enduring questions regarding the extent to which leadership behavior can be accurately measured using traditional survey questionnaires.

Contemporary social-cognitive research helps to create a retrospective understanding of this rating process. Taking a broad view on social perceptions, Cuddy, Fiske, and Glick (2008) concluded that warmth and competence are universal dimensions of social perceptions because warmth conveys information about intentions and competence indicates the capability to enact intentions. Warmth and competence should therefore be critical in assessing leadership, and they likely underlie the dimensions of Consideration and Initiating Structure identified by the Ohio State research. When completing questionnaires, raters generally have encoded information about their supervisors' warmth and competence, which they could use along with their implicit theories to complete questionnaires asking about Consideration and Initiation of Structure.

Adding to the issue of what behavioral descriptions actually measure, multiple studies reported in the *Journal* and elsewhere showed that knowledge of how well a leader's group performed affected ratings of the leader's behavior. Thus, the correlations between ratings of the leader's behavior and the group's performance could reflect real effects of leader behavioral patterns and/or be artifacts of raters' inferences based on implicit theories. Social-cognitive theory provided an explanation for such effects by emphasizing the role of categorization processes in social sense-making. Specifically, perceivers may automatically categorize leaders in terms of their implicit theories and then use the underlying structure of these categories to generate behavioral ratings (Lord, Foti, & De Vader, 1984). From this perspective, leadership perceptions reflect a match to a category prototype in the form of attributes typically associated with leadership, and behavioral ratings reflect how prototypical items are to the category of leader. Subsequent research in the *Journal* showed that prototypical characteristics were processed as a pattern (Foti & Hauenstein, 2007). Epitropaki and Martin (2005) further illustrated the importance of this process by showing that the better the match of employee's perceptions of their actual leader's profile to their implicit leadership theories, the better quality their exchange was with their respective leader.

Prototypes are important because they add structure to cognitions by defining categories in terms of central features. Accordingly, they simplify social perceptions for raters, but not necessarily for researchers who rely on behavioral ratings that may be derived from category prototypes rather than recalled behavior. Leader categorization theory, however, did provide a useful model of leadership perception that has widespread support. Complicating this theory, the nature of social categories such as leadership has been shown to be dynamic, changing with the specific context in which leadership is rated (Lord et al., 1984), and also depending on attributes of the leader being rated such as leader's race (Rosette, Leonardelli, & Phillips, 2008), gender (Heilman, Block, Martell, & Simon, 1989), and ethnicity (Sy et al., 2010). Groups also develop unique prototypes that both affect social perceptions and provide norms for behavior when members strongly identify with a group (Hogg & Terry, 2000). Such research indicates that the construct of leadership is flexibly used by perceivers, implying that raters may add a critical component to many types of leadership ratings. These rater effects make it difficult to properly interpret the effect of rated leadership on relevant outcomes, particularly when all measures come from the same rater. Factors such as emotions are also communicated from leaders to group members (Sy, Cote, & Saavedra, 2005), and emotions affect ratings of behavior as well as affectively based outcomes.

Another important outcome of this focus on leadership prototypes was the recognition that traits were important to perceivers, particularly their perceptions of a leader's trait intelligence. Extending this reasoning, leader categorization theory and trait views were integrated in a seminal *Journal* meta-analysis (Lord et al., 1986), which also recognized that variability in prior results relating traits to perceived leadership was likely do to sampling error, rather than substantive contingency factors. Such reasoning helped to rejuvenate the study of leadership and traits such as the "Big Five." It also clarified criteria for such studies by carefully distinguishing leadership perceptions and emergence from a leader's effects on team or organizational performance.

Contingency Theories of Leadership

Instead of a universal "one best way" approach to leadership, various contingency perspectives incorporated situational factors into theory and research. These approaches became popular because they offered potential to explain variability in the relation of rated leader behavior to outcomes. Fiedler (1964) argued that a combination of situational factors in the form of task structure, leader-member relations, and leader position power moderated the relation of the Least Preferred Coworker measure of task versus interpersonal leadership orientation to outcomes. The most pro-

found implication of this work was that apparently there was no one best leadership style. Though widely cited, the approach was controversial in that many studies failed to replicate Fiedler's theory (Jago & Ragan, 1986), in part, reflecting sampling error. Meta-analytic studies published in the *Journal* and elsewhere were more successful in demonstrating the robustness of his results (Strube & Garcia, 1981), particularly Fiedler's later elaborations that considered stress in situations as a factor limiting the impact of the leader's intelligence to performance outcomes (Judge, Colbert, & Ilies, 2004). However, in a meta-analysis of field studies designed to test the original contingency theory, only four of the eight predicted correlations received consistent meta-analytic support (Peters, Hartke, & Pohlmann, 1985).

Another contingency approach maintained that the requirements often associated with leadership could be fulfilled by aspects of followers such as ability and motivation or contexts such as organizational rewards. Alternatively, leadership could be neutralized by factors like spatial distance between leaders and followers. These nonleadership factors were labeled leadership substitutes or neutralizers, and Kerr and Jermier's (1978) theory predicted that the relation of leader behavior measures to outcomes would be reduced when substitutes or neutralizers were present. For example, in a study that generally found weak support for substitutes, Howell and Dorfman (1981) reported that organizational formalization made leadership impossible and/or unnecessary. An influential review in the *Journal* examined 435 relationships from 36 independent samples that investigated this theory (Podsakoff, MacKenzie, & Bommer, 1996). Meta-analysis of these relations indicated that employee attitudes and role perceptions were associated with both leader behaviors and substitutes, with substitutes accounting for considerably more variance than leader behaviors. However, Podsakoff et al. reported that the key aspect of this theory, that substitutes moderate the relation of leader behaviors to outcomes, has generally not been supported by 20 years of research.

In summary, several influential articles, many of which were published in the *Journal* (see Table 1), contributed to this second wave of leadership research. Research in this wave brought the study of rater cognitive processes and leadership perceptions to center-stage in the leadership field for both methodological and substantive reasons. Studies of behavioral approaches waned in part because of the recognition that behavioral ratings reflect rater processes as well as a leader's behavioral style, making their implications for understanding performance unclear. Also, the lack of consistent support for contingency theories and the broader understanding that sampling error was a sufficient explanation for many variable results undercut the interest in building contingency theories pertaining to leadership styles. Instead, interest was redirected to finding consistent trends which could generalize across studies and give estimates of effects that were aggregated across studies without necessarily ignoring the context in which leadership is exercised.

The Third Wave: An Expanding Focus for Leadership

Leadership Findings Revisited

An important methodological contribution in the evolution of the leadership field was the introduction, acceptance, and use of meta-analysis as a means to more accurately quantify effect sizes across studies. As meta-analysis became more widely accepted in the social sciences including applied psychology, the approach challenged and even overturned some earlier conclusions drawn about the leadership literature such as traits not being consistently associated with leadership outcomes. A positive feature of meta-analytic reviews on any topic (including leadership) is that they allow for effect sizes to be aggregated across studies and corrected for sampling error and other statistical artifacts such as measurement unreliability (Hunter & Schmidt, 1990). When a full complement of corrections is used beyond sampling error, meta-analytic proponents argue that the estimated effect sizes offer so-called population or true score estimates of the relationships between a set of variables; however, a caution is that such corrections can also overestimate population values (LeBreton, Scherer, & James, 2014). Nevertheless, such corrections can be especially helpful in revisiting early theories of leadership to make better sense of conflicting findings referenced in qualitative reviews and syntheses of the relevant literature.

One area where meta-analytic procedures had a substantial impact is in understanding the aggregated and statistically corrected (i.e., "true") relationships between personality and leadership. In one such application, Judge and colleagues (Judge et al., 2002) revisited the trait approach to leadership. In this qualitative narrative and quantitative review of the relationship between the five-factor model of personality and leadership, the authors emphasized an important distinction between leader emergence and leadership effectiveness. Specifically, leader emergence or being perceived as a leader is a within-group phenomenon, whereas leadership effectiveness or a leader's ability to influence others in helping a group achieve its goals implies a comparison with leaders typically in other groups and is a between-groups phenomenon. Although conceptually distinct, these two classes of leadership criteria often overlap in research because effectiveness measures tend to be based on ratings of leaders provided by their supervisors and not on objective measures. In other words, leadership perceptions often are the basis for effectiveness ratings as well as for emergence. Results from meta-analytic multiple regression analyses indicated that the Big 5 personality factors of Agreeableness, Extraversion, Conscientiousness, Openness, and Neuroticism were related significantly with both leader emergence ($R = .53$) and leader effectiveness ($R = .39$). These findings further supported the leader trait perspective, extending Lord et al.'s (1986) previous meta-analytic research on personality and leadership, which helped reinvigorate the trait approach by emphasizing the role of sampling error in explaining study-to-study differences in correlations of traits with leadership outcomes.

In addition to personality, the perceived and measured intelligence of the leader has long been associated with leadership. Early research identified factors limiting the importance of intelligence, noting its effect decreased with tenure (Kohs & Irle, 1920) and plateaued at higher levels (Bingham & Davis, 1924). More recent meta-analytic research in the *Journal* (Judge, Colbert, et al., 2004) indicated that a leaders' stress level and directiveness moderated these relationships (stronger for low stress; higher for directive leaders). They reported that corrected correlations between leader intelligence and objective and perceptual measures of leadership ranged from .21 to .27. The overall conclusion drawn by the authors is that the corrected population correlation between intel-

ligence and leadership is lower than what has been previously reported in the literature.

Meta-analyses also were used to reexamine the relations between the so-called "forgotten ones" of Consideration and Initiating Structure (Judge et al., 2004, p. 36), which originated in the Ohio State studies of the 1950s and 60s. Incorporating outcomes such as follower job satisfaction, motivation, and satisfaction with leader, as well as leader job performance, group or organization performance, and leader effectiveness, aggregate results weighted by sample size and corrected for unreliability of predictor and criterion measures found relatively strong effects for both Consideration (.48) and Initiating Structure (.29).

As we noted in Table 1, meta-analytic techniques were integral to the third wave of leadership research because they allowed more accurate interpretation of many prior areas of leadership research as reflected in many meta-analytic articles published in the *Journal*. The third wave of leadership research also reflects the advent and widespread investigation of transformational and charismatic forms of leadership. These so-called "New School" leadership approaches (Bryman, Stephens, & Campo, 1996, p. 357) further reinvigorated interest in leadership research and became a dominant perspective in the field beginning in the 1980s and continuing to the present day. In the next section, we summarize the work on transformational, charismatic, inspiring, and empowering leadership, which was part of the third wave shown in Figure 1.

Transformational and Charismatic Leadership

The original emphasis on transformational leadership is credited to Burns (1978), who was a political scientist and top authority on the study of U.S. Presidents. The body of work that emerged from Burns (1978) and later by Bass (1985) revitalized the field by adding an emphasis on the important and overlooked aspects of charisma, inspiration, identification, and vision (Day, 2012). Today, most leadership scholars discuss charisma and transformational leadership together, in large part because of the influence of Bass (1985), who included charisma in a multidimensional theory of transactional and transformational leadership.

Transformational leadership theory posits that exceptional performance is created by a sense of mission and new ways of thinking and learning. Transformational leaders also activate followers' general values and social identities. In the first article in the *Journal* examining the so-called great effects of transformational leadership, Hater and Bass (1988) showed that the charisma and individualized consideration components of transformational leadership each distinguished top versus ordinary performers. A key question in this area is whether transformational leadership added to or augmented the effects of other styles of leadership. In the most extensive meta-analysis of the transactional and transformational leadership literature, Judge and Piccolo (2004) found that transformational leadership and transactional contingent reward (e.g., leaders specify goals and reward followers for task completion) produced similar positive relationships with performance outcomes. Nevertheless, the authors concluded that "the results also tend to support the augmentation hypothesis in that transformational leadership did add beyond the effects of transactional and laissez-faire leadership (though controlling for these other forms of leadership did substantially reduce the effect of transformational leadership)" (p. 765).

Examining antecedents and mechanisms. A few *Journal* studies examined personality as an antecedent of transformational leadership. Howell and Avolio (1993) reported that transformational leaders rated themselves higher on internal locus of control and therefore were more likely to attribute getting things done to their own influence versus external contingencies. Subsequent meta-analyses of the five factor model of personality have shown that there is a relatively small proportion of the variance (typically less than 5%) in transformational leadership associated with personality traits (Bono & Judge, 2004; Judge & Bono, 2000).

Researchers have investigated the role of follower identity in leadership processes in work published in the *Journal*. Collective, relational, and individual identities recently have been shown to be an antecedent of transformational, consideration, and abusive behaviors, respectively (Johnson, Venus, Lanaj, Mao, & Chang, 2012), perhaps reflecting the effects of identity as a higher level organizing structure than personality. Other *Journal* studies investigated various mediating and moderating mechanisms of transformational and inspirational leadership. Kark, Shamir, and Chen (2003) examined whether transformational leadership produced so-called *dual effects* of transformational leadership. They suggested that transformational leaders can increase feelings of both empowerment and dependence in their followers based on the different facets comprising transformational leadership. They found evidence for these dual effects and demonstrated that followers' personal identification with the leader mediated the relationship of transformational leadership with higher levels of dependence, whereas social identification with the team mediated the relationship with empowerment. These findings showed the aggregate transformational leadership style could have different effects depending on the type of identification that followers form in reacting to a leader, thus showing that follower reactions are an important part of leadership processes. In another study of potential explanatory mechanisms focusing on followers, Den Hartog and Belschak (2012) showed that workers who had lower levels of self-efficacy for completing their job tasks, benefited more from transformational leadership, particularly when they experienced higher levels of job autonomy.

In his theory of charismatic leadership, Weber (1924/1947) maintained that charisma represents, "an emotional form of communal relationship" (p. 360). To examine this connection between emotion and charisma, Bono, Foldes, Vinson, and Muros (2007) used an experience-sampling strategy to collect data on follower emotions expressed over time. Because transformational leaders provide greater social support and identification for followers, the authors expected and found higher levels of positive emotions exhibited by followers of transformational leaders, as well as by the health care clients who were serviced by these followers. In addition, transformational leadership reduced stress among these followers.

Effects on followers' perceptions and attitudes. Other research focused on how inspirational models of leadership influenced follower ethical standards, values, and behavior. For example, Yaffe and Kark (2011) highlighted the role modeling of transformational leaders' organizational citizenship behaviors in the form of their willingness to put in extra effort to help peers. This study showed that followers who perceived the leader as a worthy role model were more likely to exhibit this type of prosocial behavior with coworkers. Similarly, leaders rated as more

transformational by their followers also scored higher on moral reasoning (Turner, Barling, Epitropaki, Butcher, & Milner, 2002). These results confirm what Burns (1978) originally described as being distinguishing qualities of transformational leaders: focusing on developing followers and modeling higher ethical standards. Brown and Treviño (2009) examined how the prosocial charismatic components associated with transformational leadership would affect the level of congruence between leaders' and followers' values. Specifically, these prosocial components of socialized charisma included higher levels of self-transcendence/lower self-interest, enhancement of others, and being open to change. Prosocial components were related to higher leader/follower value congruence among followers of these leaders, offering evidence for the transformative effect of these leaders discussed by Burns (1978) and later by Bass (1985).

Leadership theorists argued that higher levels of sacrifice exhibited by leaders would enhance their charisma (Burns, 1978; Conger & Kanungo, 1987; Shamir, House, & Arthur, 1993). Consistent with this argument, followers ascribed more charisma to leaders who exhibited more sacrifice and less self-benefit, producing followers with greater commitment to and support of their leader (Yorges, Weiss, & Strickland, 1999). Building on the concept of belongingness to a group, an additional *Journal* study examined whether transformational leadership would enhance followers' commitment, particularly if such leadership enhanced followers' support for change in an organization (Herold, Fedor, Caldwell, & Liu, 2008). This study reported that higher ratings of transformational leadership positively predicted affective commitment to ongoing change, and that these relationships were stronger when change had a more direct impact on followers' work.

Relatedly, a meta-analysis from the early 2000s examined the antecedents, correlates, and outcomes associated with trust in leadership (Dirks & Ferrin, 2002). Trust showed positive relationships to a wide range of outcomes including follower job performance, organizational citizenship behavior, turnover intentions, organizational commitment, and job satisfaction. In terms of antecedents, trust in leadership was positively predicted by transformational and transactional leadership, social justice, participative decision making, perceived organizational support, and propensity to trust, and negatively predicted by unmet expectations. The only antecedent that was unrelated to trust in leadership was length of relationship. In a series of moderator analyses, the authors demonstrated that supervisors who are face-to-face leaders were an especially important trust referent.

Focus on development.   Rather than merely evaluate the antecedents and consequences of transformational leadership, early research also examined whether it could be developed. In one such study, relatively short training interventions increased survey ratings of transformational leadership and had a positive impact on unit performance (Barling, Weber, & Kelloway, 1996). Similarly, a field experiment provided confirming evidence that transformational leadership could be developed to enhance follower attitudes and performance (Dvir, Eden, Avolio, & Shamir, 2002). Also, a meta-analysis examining studies spanning the past 75 years in which interventions attempted to change leader behavior found evidence that transformational, transactional, and more traditional styles of leadership could all be developed (Avolio, Reichard, Hannah, Walumbwa, & Chan, 2009).

In sum, research on transformational and charismatic leadership has produced a large body of research, which continues to grow in the *Journal* and other top outlets. Nevertheless, there have been criticisms raised regarding both the conceptualization and measurement of these styles of leadership, and the lack of a clear theory relating specific component leadership dimensions to mediators that ultimately shape performance outcomes (van Knippenberg & Sitkin, 2013; Yukl, 2012). These issues need to be addressed by future research on transformational leadership, which can build on the wealth of information that has been accumulated over the last three decades.

Leader–Member Exchange Theory

Another overarching leadership theme during the 1990s and beyond is Leader-Member Exchange (LMX) theory, the most widely researched of the relationship-based approaches to leadership. What distinguishes LMX from other leadership theories is its focus on the relationship that develops between leaders and their followers and that this relationship is unique in terms of its underlying quality. In essence, leaders are thought to treat each of their followers in a work group differently. This relational emphasis set the theory apart from more traditional approaches that assume an average leadership style, whereby leaders treat followers generally with the same level of directedness, consideration, and other factors. LMX is also unique in adopting a jointly determined leader-follower relationship as the central construct of study rather than the locus of leadership being either the leader or follower.

In an influential article on the topic, Graen and Uhl-Bien (1995) traced the growth of LMX theory historically from its roots in Vertical Dyad Linkage (Dansereau, Graen, & Haga, 1975). The Graen and Uhl-Bien review shifted the focus that LMX places on the relationship quality that exists between a leader and various followers within a work unit, to focusing on how differentiated LMX relationships predict organizational outcomes. They also described the aggregation of dyads into larger collectives and the links between each and relevant outcomes. Given that theory and research in the field examine dyads within work units, dyads independent of work unit, and aggregation of dyads, LMX is one of the first theories to embrace the multilevel nature of leadership in organizations. The authors also propose a life cycle perspective of LMX development that begins with an initial *Stranger phase* in which exchanges between a leader and follower are relatively basic and transactional; to *Acquaintance* in which trust begins to develop as a foundation to the exchange; to *Maturity* in which the relationship becomes based in mutual trust, respect, and obligation. Despite this theoretical grounding in multilevel role-making processes, the reality is that most LMX research measures exchange quality in a static and absolute manner, rather than in dynamic and relative terms. In short, most LMX research has not fully investigated the longitudinal and relational effects of leadership exchanges.

The first meta-analysis to provide a quantitative review of the LMX literature (Gerstner & Day, 1997) was published in the *Journal*. It summarized relationships between LMX and work-related constructs such as job performance, satisfaction, organizational commitment, role perceptions, turnover, member competence, and leader–member agreement on overall LMX quality. One

of the surprising findings to emerge was that the mean sample-weighted average correlation between leader and member reports of LMX was only .29 (.37 corrected for unreliability). This modest relationship was unexpected because the leaders and followers evaluated the same construct—their shared relationship in terms of influence. Only more recently have researchers attempted to understand potential reasons behind this modest relationship (Sin, Nahrgang, & Morgeson, 2009), including the facilitating effects on agreement of longer relationship tenure and the more affectively loaded LMX dimensions of affect, loyalty, and contribution.

Given the consistent positive relations between LMX and a variety of work outcomes, Gerstner and Day (1997) proposed "the relationship with one's supervisor [i.e., direct leader] as a lens through which the entire work experience is viewed" (p. 840). This claim underscores the importance of LMX as a leadership theory as well as its relevance in explaining a variety of work-related outcomes. Subsequent meta-analyses also demonstrated positive relationships between LMX quality and organizational citizenship behaviors (Ilies, Nahrgang, & Morgeson, 2007), with stronger effects for individually as compared to organizationally targeted citizenship behaviors.

Another notable LMX article from this decade that was published in the *Journal* examined the early development of LMX relationships (Liden, Wayne, & Stilwell, 1993), demonstrating that expectations, perceived similarity, and liking between a leader and follower assessed in the first five days in the tenure of the dyad predicted LMX ratings as much as six months later. These results suggest that certain impressions formed early in dyad development predict LMX quality two weeks and six months into the life of the dyad, corroborating other research suggesting that LMX quality develops relatively quickly among leaders and followers (Dansereau et al., 1975). More recent work on the development of LMX relationships adopted growth curve modeling to demonstrate that aspects of personality in the forms of member extraversion and leader agreeableness influence initial levels of LMX, while leader and member performance influence its development of its relationship over time (Nahrgang, Morgeson, & Ilies, 2009).

Finally, another highly influential *Journal* study (see Table 1) addressed the broader issues of social exchange and reciprocity norms in organizations in conjunction with perceived organizational support and LMX, as they relate to worker attitudes and behavior (Settoon et al., 1996). Results from a series of nested structural equation models suggested that followers' perceived organizational support was positively associated with their organizational commitment ratings, whereas followers' LMX ratings were positively associated with supervisor ratings of follower citizenship and in-role behavior.

Since its inception over 40 years ago, LMX is among the most heavily researched approaches to studying leadership. Its increased popularity since the 1990s is an important part of the third wave of leadership research. Nonetheless, concerns have been raised about inconsistencies in construct definitions and measurement, as well as whether LMX has been studied at the dyadic level of analysis as specified by the theory (e.g., Schriesheim, Castro, & Coglissr, 1999).

Gender and Leadership

After women entered the paid labor force—and especially managerial ranks—in large numbers in the 1970s and 1980s, many began to direct their aspirations upward toward male-dominated leadership roles. Given this societal context, it is not surprising that the 1990s brought increased attention to the topic of gender within leadership theory and research. Fueling this upsurge of interest were several widely cited meta-analyses that capitalized on the earlier publication of leadership studies that had included male and female leaders as participants or as stimuli presented for evaluation. In this endeavor, the *Journal* was notable for publishing several pioneering empirical articles on gender issues beginning in the late 1960s. Substantial bodies of research addressing four key gender topics had accumulated by the steady production of relevant findings. These research literatures were advanced through a series of meta-analytic integrations that addressed discrepancies in the scholarly and practice literature as well as pertinent issues that followed from women's slow rise in organizational and political hierarchies.

These available concentrations of studies pertained to (a) the emergence of female and male leaders from initially leaderless groups, (b) the leadership styles of men and women, (c) gender bias in the evaluations of leaders, and (d) the effectiveness of male and female leaders. Addressing the emergence of female and male leaders in task-oriented groups, Megargee's (1969) classic article reported diminished emergence by women in face-to-face interaction with men, even when a woman would seem to have advantage by virtue of her dominant personality. In the 1990s, this early study was incorporated into a meta-analysis that identified conditions that exacerbated or diminished the overall trend for men to emerge as leaders more often than women (Eagly & Karau, 1991). In addition, Eagly and Johnson's (1990) meta-analysis examined relations between gender and leadership style. Among this project's findings was a tendency for women to adopt more democratic and participative styles than their male counterparts. Research that accumulated later on transformational leadership resulted in a meta-analysis of gender's relations to transformational and transactional leadership (Eagly, Johannesen-Schmidt, & van Engen, 2003). Women proved to be somewhat more transformational than men as leaders, especially in building supportive relationships with followers, as well as more transactional in their use of rewards as incentives.

Addressing the question of whether women are disadvantaged by biased evaluations of their leader behavior, Rosen and Jerdee's (1973) early article reported limited evidence of such bias. In the 1990s this study and many others were incorporated into a meta-analysis establishing that women were devalued relative to experimentally equated men, especially when evaluated by men and when enacting culturally masculine autocratic or directive leadership styles (Eagly, Makhijani, & Klonksy, 1992). Similarly, Petty and Lee's (1975) study examining reactions to male and female leaders in an organizational setting was integrated with other such studies by a meta-analysis of the effectiveness of female and male leaders (Eagly, Karau, & Makhijani, 1995). This review reported context effects whereby leaders fared better in roles that were culturally congruent with or were numerically dominated by their own sex. The findings of these four meta-analyses were critical to the formulation of role congruity theory, which provided a general framework for understanding women's often vulnerable status as leaders depending on the leadership roles or positions they hold (Eagly & Karau, 2002).

Other milestones of gender research consisted of the *Journal*'s publication of two classic "think manager, think male" articles by Schein (1973, 1975). Considerably later, a meta-analysis incorporated research in Schein's paradigm with research in two related paradigms assessing the masculinity of the cultural stereotype (i.e., prototype) of leadership (Koenig, Eagly, Mitchell, & Ristikari, 2011). Key findings were that, despite the tendency for men to regard leadership as more masculine than women did, leadership's cultural masculinity had ebbed as it incorporated a greater demand for interpersonally skilled behavior.

Team Leadership

Researchers focusing on *team leadership* have studied the influence of leadership behavior on team-level processes and performance. A key emphasis is on how leaders foster synergy among team members and facilitate the emergence of different phases of team development. The roots of team leadership lie in what was called the functional leadership perspective positing that leaders should act in ways that provide teams with what they need when it is needed for successful collective action (Hackman & Wageman, 2005). This perspective has recently gained prominence in the team leadership literature.

Functional leadership. According to this perspective, leadership responsibilities include functions like ensuring the team had clear direction, providing an enabling structure and context, coaching, and assuring adequate resources (e.g., Hackman & Wageman, 2005). Such leadership influences team performance through its effects on team cognitive, motivational, and affective processes and emergent states (Marks, Mathieu, & Zaccaro, 2001; Zaccaro, Rittman, & Marks, 2001), and it also facilitates the emergence of collective leadership capacity and expertise within the team (Day, Gronn, & Salas, 2004).

Additional work specified how leader roles change as the team moves from a new or novice state to a more mature state reflecting high levels of shared expertise and adaptive capacity (Kozlowski, Gully, Nason, & Smith, 1999; Kozlowski, Watola, Jensen, Kim, & Botero, 2009). The leader acts in different ways at different times of the team's developmental cycle to facilitate this maturation, which can be provided by either an internal or external leader (Morgeson, DeRue, & Karam, 2010). Prior seminal work published in the *Journal* (Marks et al., 2000) found that the quality of leader mission briefings, which help provide clear team direction, positively influenced team member communication processes and the degree of similarity and accuracy of team member mental models. These factors, in turn, influenced team performance more strongly on novel versus routine tasks, indicating team functional leadership affected team processes, emergent states, and adaptation.

Another *Journal* article applied the functional leadership perspective to multiteam systems in which multiple teams engage in close interdependent action (DeChurch & Marks, 2006). Their leaders' setting of directions and enabling collective performance conditions predicted improved coordination processes and overall performance. Two other *Journal* studies linked functional leadership to team adaptation. Yun, Faraj, and Sims (2005) noted that the influence of directive versus empowering leadership on the effectiveness of trauma resuscitation teams depended upon the level of trauma severity and team experience. When trauma severity was high and team experience was low, directive leadership was more effective and empowering leadership was less effective. These findings point to the importance of matching leader behavior to team performance requirements such as the severity or difficulty of the task. Morgeson (2005) also provided evidence for the role of leaders in fostering team adaptation when leaders were external to self-managing teams. He found their preparation and coaching activities were perceived as facilitating team effectiveness, especially when teams were confronted with external novel and disruptive events.

Transformational leadership in teams. Several studies examined the associations of transformational leadership with team processes, states, and outcomes. These studies suggest that transformational leadership influences team performance by facilitating the emergence of more positive team motivational states, such as team potency, cohesion, and trust (e.g., Bass et al., 2003; Schaubroeck, Lam, & Cha, 2007; Schaubroeck, Lam, & Peng, 2011). Other studies linked transformational leadership to more effective team interaction processes such as information elaboration (Kearney & Gebert, 2009) and advice exchange (Zhang & Peterson, 2011). Taken together, these studies established the associations between one of the most widely studied forms of leadership over the last 20 years and team level processes and outcomes.

Multilevel leadership research. A related body of *Journal* research published in the last 10 to 15 years has used sophisticated multilevel modeling statistical procedures to explore cross-level leadership dynamics. These studies typically examined the influence of leadership on both team and individual level processes and outcomes, such as the differential effects of leadership climate on team members and collective self-efficacy (Chen & Bliese, 2002). Other research illustrates the differential effects of leadership at individual and team levels, with leadership climate positively related to team empowerment, and LMX quality positively related to individual empowerment (Chen, Kirkman, Kanfer, Allen, & Rosen, 2007). This research represents leadership as a complex and multifaceted phenomenon that operates at multiple levels. The maturation in our examination of this phenomenon, driven to a large degree by statistical and methodological advances, reflects an enduring trend in leadership research published over the 100 years of the *Journal*.

Shared leadership. On the surface, this approach to team leadership seems relatively new, but it is also an extension of Stogdill and Shartle's (1948) emphasis on leadership role and behavior, rather than a specific person. For example, a leadership role can shift among team members in terms of being shared over time, thus representing the distribution of functional leadership roles in groups (Wang, Waldman, & Zhang, 2014). At a basic level, shared leadership can be viewed in terms of how different individuals enact leader and follower roles at different points in time, a theme extending earlier observations by Bogardus (1934) about individual enactment of leadership and followership. Other more dynamic ways of conceptualizing and measuring shared leadership have emerged in the *Journal* in terms of how team members share knowledge and influence with each other over time and "lead each other toward goal achievement" (Wang et al., 2014, p. 181).

Drescher, Korsgaard, Welpe, Picot and Wigand (2014) found that higher levels of shared leadership in game simulation teams positively predicted trust and performance improvement. Explor-

ing a novel context, Hoch and Kozlowski (2014) examined shared versus hierarchical leadership in global virtual R&D manufacturing teams. They compared more traditional hierarchical forms of leadership evaluated by team members such as reward-based, transformational, LMX, and mentoring with shared team learning, affective team support, and team level LMX in globally distributed teams. Results suggested that structural and team support and not hierarchical leadership positively predicted team performance, as evaluated by the team leader.

In summary, this third wave of leadership reflects the combination of several trends and the influence of several key articles published in the *Journal* (see Table 1) that open up or popularized research programs. Specifically, meta-analysis had a tremendous impact in terms of revisiting certain "received doctrines" about the role of individual differences such as leader personality and, intelligence and leadership as well as leader behaviors in the form of Consideration and Initiating Structure. The emergence of transformational/charismatic forms of leadership was another important trend that continues to the present. Gender and leadership was another important theme from this wave of leadership research, and it seems to be gaining even more momentum as a critical societal theme in terms of how to increase the representation of women in senior leadership roles. The *Journal* has played a prominent role in featuring research on these themes during this most recent wave of leadership research.

Conclusions and Future Directions

Examining the last 100 years of a journal's publications on leadership along with related literature makes it tempting to predict how leadership theory, research, and practice will change in the future. Rather than make such predictions, we prefer to follow what the current President of Pixar and Disney Animation Studios, Ed Catmull (2014, p. 295) said, "The future is not a destination— it's a direction." In this spirit, we offer some likely directions for future work on leadership, with the hope that these suggestions will stimulate avenues for new leadership work in this journal and beyond. We also believe that it is safe to assume that the challenges that leadership scholars and practitioners will have to examine and address are already emerging today. Consequently, our identification of these directions is guided by Shamir's (2005, p. 498) view that "the social relationship we call leadership is always co-produced by leaders and others"—a theme that transcends earlier, emerging, and future contexts. Moreover, although many directions are still at their nascent stages of development, the *Journal* has played a leading role in these advancements by publishing 24% of the most highly cited leadership articles (see online appendix).

Starting with the leader as the pivotal actor in this social relationship, which has been the approach of most leadership articles in the *Journal*, we recognize the potential of a multidisciplinary view of the components of leaders' trajectories—namely, what influences an individual to develop leadership skills; initiate and sustain leadership; leave teams, organizations, and communities better then they found them; and subsequently relinquish and turn over leadership. The importance of a multidisciplinary approach is underscored by the inspiration that work in other disciplines has already provided. Among the largest advances in leadership theory and research, for example, is House's (1977) theory of charismatic

leadership, which derived in large part from the political science and sociological literatures. Similarly, Bass's (1985) theory of transformational and transactional leadership was greatly influenced by Burns' (1978) analyses stemming from history and political science.

Based on our review, we believe that scholars of leadership will deepen their understanding of how leaders think and behave by incorporating insights from related fields. Although developments in cognitive psychology have already inspired greater understanding of leadership, neuroscience is beginning to add additional insights. Two examples are (a) Hannah, Balthazard et al.'s (2013) examination of the links between the psychological and neurological bases for determining a leader's level of self-complexity, and (b) Reynolds' (2006) presentation of a neurocognitive model of ethical decision-making to explain how some ethical decisions are more automatic than others. No doubt other fields, such as social and developmental psychology, sociology, and economics, will also offer insights that could inform leadership research. We suggest that this journal promote cross-boundary discoveries about how leaders think, emote, and behave.

It is already apparent that social relationships in which leadership transpires are in transition in ways that will change how people theorize, investigate, and practice leadership in organizations, communities, and nations. For example, in many organizations throughout the world, but especially in North America, employees range in age from 18 to 70 and beyond. Consequently, organizations may have four or more generations working together. These generations have grown up in very different historical, sociological, educational, technological, and cultural environments. This multigenerational phenomenon raises questions about how leadership emerges, is enacted, and succeeds or fails within and between generations.

Also consider that most of the research on leadership published in this journal has focused on leaders and followers interacting face to face. Yet, many leaders and followers interact through technology, at a distance across time zones, cultures, and markets. As technology improves in mimicking the social relationships formed in face-to-face interaction, distance may have less importance in leader-follower relations. Virtual interactions may seem so real that physical distance becomes less consequential to the dynamics of leadership. There is still relatively little research on this topic, even though most leaders, including academic ones who read this journal, do a great deal of their work at a distance from colleagues.

Trends over the last 20 years show increasing emphasis on shared or collective leadership, even though numerous leadership scholars, including Stogdill (1950), had already referred to shared leadership in their much earlier writing. Yet, our advances in understanding how to conceptualize, measure, and indeed practice what constitutes shared leadership is at best rudimentary. So far, investigators have examined the same individuals enacting leader roles at different points in time (Carson, Tesluk, & Marrone, 2007), teams developing different ways of enacting leadership (DeRue, 2011), and emergent leadership occurring within teams (Wang et al., 2014). These helpful developments will expand to consider organizations and larger collectives, perhaps encompassing the idea that the locus of leadership may sometimes shift toward "the crowd" and away from "the team" or "the individual." As Day et al. (2004) suggested, the overall leadership capacity of

a collective, such as an organization, may be determined, in part, by the amount of shared leadership that is available within and between all levels of the collective, thereby expanding the social relationships of leadership to an organizational leadership system.

Research interest in more collective forms of leadership also has implications for the future of leadership development. Although the development of leaders and leadership capabilities is a highly important topic in many organizations, research on the topic has lagged behind its practice. The good news is that scholarly interest in leadership development is emerging with several empirically based *Journal* studies on the topic published within the past few years (e.g., (DeRue, Nahrgang, Hollenbeck, & Workman, 2012; DeRue & Wellman, 2009; Dragoni, Park, Soltis, & Forte-Trammell, 2014). More attention is needed in this under-researched area. It seems that the theory, methods, and analytical techniques are available to support the kind of longitudinal, multilevel research that will further advance the leadership development field.

Leadership research published in the *Journal* also has incorporated many statistical and methodological advances that have allowed researchers to focus on the diverse ways that leadership is enacted and transmitted through the mediation of social relationships and their effects on a broad range of outcomes (e.g., these advances have provided researchers with the opportunity to examine how leadership at one level of an organization can influence leadership and followership at other levels both directly and indirectly through effects on climate and culture; Schaubroeck et al., 2012). Contributing to this line of work, social network theory and analysis facilitate the assessment of collective leadership structures and thereby provide insight into the social dynamics of leadership and raise new questions about the effects of leadership on proximal and more distal relationships within networks. For example, Balkundi, Kilduff, and Harrison (2011) showed that charismatic leadership perceptions arise from centrality in networks rather than causing centrality. Carter et al. (2015) encouraged analyzing leadership through the lens of social networks to understand how influence embedded in formal and informal leadership emerges in varying situations. We suspect that analyses of collective leadership will be elevated beyond teams to the organizational and interorganizational levels, where leadership networks influence organizational capacity, adaptive cultures, and sustainable effectiveness.

A major issue is the extent to which leadership will be focused on the individual leader as compared with larger configurations of relationships in decentralized social systems from which social conventions, group structures, and goals emerge spontaneously (Centola & Baronchelli, 2015). Illustrating an emerging direction, complexity theorists argue that bottom-up emergence rather than hierarchically directed change is a critical adaptive function of organizational systems. The future may offer organizational systems that interconnect the cognitions of individual people perhaps using biologically embedded technologies in a manner that extracts the best choices for making decisions. Understanding of this form of *collective intelligent design* may evolve from those rudimentary mental models that psychologists have already explored to understand teams (Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000).

Organizations are increasingly exploring many different ways to structure how people work and interact. The transformative changes in what constitutes structure will necessitate that theorists consider how to adapt our leadership models and methods to incorporate these changes into our analysis of leaders, followers, and leadership. For example, the CEO of Zappos, Tony Hsieh, recently announced that Zappos will shift its entire structure toward a holocracy, a structure with many relatively independent leadership roles but few formal leaders, in contrast to the traditional hierarchical structures still evident in most organizations (Hodge, 2015). To the extent that such leaders desire to explore radically different organizational structures, these changes will affect how researchers study, develop, and ultimately determine the practice of leadership. It will be critical to understand the styles or orientations of leadership that will suffice in such new structures as well as those that would no longer be effective. Future planners will have to prepare leaders for organizations that lack the traditional features of direct reports, span of control, and accountabilities.

In line with the changes proposed by Tony Hsieh, a company called Hyperloop Transportation Technology (HTT) is taking on the challenge proposed by Elon Musk, the founder of Tesla Motors, to build what he has called hyperloop technology. This technology has the potential to radically change how we transport people from one location to a distant location. If successful, people will travel hundreds of miles in containers propelled by electricity, magnetism, and air pressure. The challenge for the field of leadership is to examine what constitutes leadership in HTT where almost all of its workers serve as online contractors using a crowdsourcing model—meaning they are not on any single payroll. Scholars of leadership will need to compare these contemporary organizational forms with more traditional ones. What theories and methods help to explain how newer structures affect motivation and performance compared with more traditional structures? These and many other experiments in new organizational structure will challenge leadership researchers to rethink their models and methods to encompass these emerging contexts.

Looking not so far into the future, we expect that sociopolitical changes will shape future leadership agendas just as demographic trends in employment in the 1970s and 1980s made gender and race-related leadership research relevant and important. Currently, there is unprecedented movement of populations as people immigrate to other locations seeking safety, education, and jobs. Also, as natural disasters continue to evolve, including those that follow from climate change, more massive resettlements may follow. This changing composition of regions and nations due to natural disasters and national and international conflicts will certainly affect leadership theory, research, and practice. The potentialities that future leaders may need to address would include not only effective and ethical leadership becoming critical for meeting such challenges, but also the possible rise of abusive leadership, demagoguery, and corruption in the face of rapid sociopolitical shifts and intense competition for resources. A great deal needs to be learned about what instigates the emergence of abusive or destructive forms of leadership focusing on the leader, followers, and context, which is relatively under-researched presently in this journal (see for an exception, Hannah, Schaubroeck, et al., 2013). There will be no simple solutions to the threats that arise in the face of massive sociopolitical changes. Solutions will require leadership that reaches across national boundaries and engages

multiple individual, relational, and collective processes that will create the complexly integrated leadership systems of the future.

In the future, statistical and computing advances will allow better analysis and modeling of complex adaptive systems involving teams and organizational systems. Technology will influence social dynamics as it becomes more embedded in every facet of human existence and interaction. Individuals now have more computing power that they can wear on their wrist than the Apollo missions had, and future technologies will connect individuals faster and more seamlessly. Perhaps these innovations will produce human/machine systems incorporating leadership functions that monitor communications and emotions as well as tasks accomplished, thereby eliminating the need for surveys that inquire about these matters. Even today, biometric measures can monitor how individuals go throughout their day as they take on individual challenges, such as when playing a sport. If football coaches will be able to determine when to pull out a player based on physical indicators, it seems feasible to intervene to mitigate a worker's excessive emotional labor. Despite ethical issues in such monitoring, these types of monitors already track the biometrics of athletes, nurses, police officers, and military personnel, to mention a few.

Environmental, economic, and demographic trends may also create new challenges for leadership research, such as understanding how leaders can foster identity development that bridges generations, genders, sexual orientations, and races and ethnicities. The changes in majority and minority group composition will challenge the once-prevailing cultural models of White male leadership (Koenig et al., 2011). In the early part of the 21st century, men of European ancestry still numerically dominate high-level leadership roles in Western nations. However, we can envision a future with collectives from large to small that have extraordinary sociodemographic diversity, requiring leadership scholars to revise their ideas about how individuals gain and retain legitimacy as leaders, and perhaps the meaning of leadership itself. Critical in theory-building will be developing an understanding of the interacting mechanisms that transmit leadership at each level of analysis and extend beyond business and governmental systems.

In sum, although the future may not be clear, we suggest that the directions noted above are already evident or at least emerging. We can confidently predict that as part of the next hundred years of research published in this journal, there will be a body of work to be reviewed called leadership, even if its form, effects, and development are fundamentally different from what we observe today.

References

Avolio, B. J., Reichard, R. J., Hannah, S. T., Walumbwa, F. O., & Chan, A. (2009). A meta-analytic review of leadership impact research: Experimental and quasi-experimental studies. *The Leadership Quarterly, 20,* 764–784. http://dx.doi.org/10.1016/j.leaqua.2009.06.006

Bales, R. F. (1950). *Interaction process analysis: A method for the study of small groups*. Cambridge, MA: Addison Wesley Press.

Balkundi, P., Kilduff, M., & Harrison, D. A. (2011). Centrality and charisma: Comparing how leader networks and attributions affect team performance. *Journal of Applied Psychology, 96,* 1209–1222. http://dx.doi.org/10.1037/a0024890

Barling, J., Weber, T., & Kelloway, E. K. (1996). Effects of transformational leadership training on attitudinal and financial outcomes: A field experiment. *Journal of Applied Psychology, 81,* 827–832. http://dx.doi.org/10.1037/0021-9010.81.6.827

Barnard, C. I. (1938). *The functions of the executive*. Cambridge, MA: Harvard University.

Bass, B. M. (1949). An analysis of the leaderless group discussion. *Journal of Applied Psychology, 33,* 527–533. http://dx.doi.org/10.1037/h0058164

Bass, B. M. (1956). Leadership opinions as forecasts of supervisory success. *Journal of Applied Psychology, 40,* 345–346. http://dx.doi.org/10.1037/h0044544

Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York, NY: Free Press.

Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology, 88,* 207–218. http://dx.doi.org/10.1037/0021-9010.88.2.207

Bass, B. M., Klubeck, S., & Wurster, C. R. (1953). Factors influencing reliability and validity of leaderless group discussion assessment. *Journal of Applied Psychology, 37,* 26–30. http://dx.doi.org/10.1037/h0054571

Bass, B. M., & Norton, F.-T. M. (1951). Group size and leaderless discussions. *Journal of Applied Psychology, 35,* 397–400. http://dx.doi.org/10.1037/h0055478

Bass, B. M., & Wurster, C. R. (1953). Effects of the nature of the problem on LGD performance. *Journal of Applied Psychology, 37,* 96–99. http://dx.doi.org/10.1037/h0057678

Bingham, W. V. (1919). Army personnel work with some implications for education and industry. *Journal of Applied Psychology, 3,* 1–12. http://dx.doi.org/10.1037/h0071699

Bingham, W. V., & Davis, W. T. (1924). Intelligence test scores and business success. *Journal of Applied Psychology, 8,* 1–22. http://dx.doi.org/10.1037/h0071351

Bird, C. (1940). *Social psychology*. New York, NY: Appleton-Century.

Bogardus, E. S. (1934). *Leaders and leadership*. New York, NY: D. Appleton-Century.

Bono, J. E., Foldes, H. J., Vinson, G., & Muros, J. P. (2007). Workplace emotions: The role of supervision and leadership. *Journal of Applied Psychology, 92,* 1357–1367. http://dx.doi.org/10.1037/0021-9010.92.5.1357

Bono, J. E., & Judge, T. A. (2004). Personality and transformational and transactional leadership: A meta-analysis. *Journal of Applied Psychology, 89,* 901–910. http://dx.doi.org/10.1037/0021-9010.89.5.901

Bray, D. W. (1982). The assessment center and the study of lives. *American Psychologist, 37,* 180–189. http://dx.doi.org/10.1037/0003-066X.37.2.180

Brown, M. E., & Treviño, L. K. (2009). Leader-follower values congruence: Are socialized charismatic leaders better able to achieve it? *Journal of Applied Psychology, 94,* 478–490. http://dx.doi.org/10.1037/a0014069

Browne, C. (1949). Study of executive leadership in business. I. The R, A, and D scales. *Journal of Applied Psychology, 33,* 521–526. http://dx.doi.org/10.1037/h0062769

Browne, C. (1950). Study of executive leadership in business. II. Social group patterns. *Journal of Applied Psychology, 34,* 12–15. http://dx.doi.org/10.1037/h0054516

Browne, C. G. (1951). Study of executive leadership in business. IV. Sociometric pattern. *Journal of Applied Psychology, 35,* 34–37. http://dx.doi.org/10.1037/h0059149

Bryman, A., Stephens, M., & Campo, C. (1996). The importance of context: Qualitative research and the study of leadership. *The Leadership Quarterly, 7,* 353–370. http://dx.doi.org/10.1016/S1048-9843(96)90025-9

Burns, J. M. (1978). *Leadership*. New York, NY: Harper & Row.

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,* 1217–1234. http://dx.doi.org/10.2307/20159921

Carter, D. R., DeChurch, L. A., Braun, M. T., & Contractor, N. S. (2015). Social network approaches to leadership: An integrative conceptual review. *Journal of Applied Psychology, 100,* 597–622. http://dx.doi.org/10.1037/a0038922

Catmull, E. (2014). *Creativity Inc.: Overcoming the unseen forces that stand in the way of true inspiration.* New York, NY: Random House.

Centola, D., & Baronchelli, A. (2015). The spontaneous emergence of conventions: An experimental study of cultural evolution. *PNAS Proceedings of the National Academy of Sciences of the United States of America, 112,* 1989–1994. http://dx.doi.org/10.1073/pnas.1418838112

Chan, K. Y., & Drasgow, F. (2001). Toward a theory of individual differences and leadership: Understanding the motivation to lead. *Journal of Applied Psychology, 86,* 481–498. http://dx.doi.org/10.1037/0021-9010.86.3.481

Chen, G., & Bliese, P. D. (2002). The role of different levels of leadership in predicting self- and collective efficacy: Evidence for discontinuity. *Journal of Applied Psychology, 87,* 549–556. http://dx.doi.org/10.1037/0021-9010.87.3.549

Chen, G., Kirkman, B. L., Kanfer, R., Allen, D., & Rosen, B. (2007). A multilevel study of leadership, empowerment, and performance in teams. *Journal of Applied Psychology, 92,* 331–346. http://dx.doi.org/10.1037/0021-9010.92.2.331

Cleven, W. A., & Fiedler, F. E. (1956). Interpersonal perceptions of open-hearth foremen and steel production. *Journal of Applied Psychology, 40,* 312–314. http://dx.doi.org/10.1037/h0046791

Conger, J. A., & Kanungo, R. N. (1987). Toward a behavioral theory of charismatic leadership in organizations. *The Academy of Management Review, 12,* 637–647.

Craig, D. R., & Charters, W. W. (1925). *Personal leadership in industry.* New York, NY: McGraw-Hill.

Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perceptions: The stereotype content model and the BIAS map. *Advances in Experimental Social Psychology, 40,* 61–149. http://dx.doi.org/10.1016/S0065-2601(07)00002-0

Dansereau, F., Jr., Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior & Human Performance, 13,* 46–78. http://dx.doi.org/10.1016/0030-5073(75)90005-7

Dashiell, J. F. (1930). Personality traits and the different professions. *Journal of Applied Psychology, 14,* 197–201. http://dx.doi.org/10.1037/h0074873

Day, D. V. (2012). Leadership. In S. W. J. Kozlowski (Ed.), *The Oxford handbook of organizational psychology* (Vol. 1, pp. 696–729). New York, NY: Oxford University.

Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *The Leadership Quarterly, 15,* 857–880. http://dx.doi.org/10.1016/j.leaqua.2004.09.001

DeChurch, L. A., & Marks, M. A. (2006). Leadership in multiteam systems. *Journal of Applied Psychology, 91,* 311–329. http://dx.doi.org/10.1037/0021-9010.91.2.311

Den Hartog, D. N., & Belschak, F. D. (2012). When does transformational leadership enhance employee proactive behavior? The role of autonomy and role breadth self-efficacy. *Journal of Applied Psychology, 97,* 194–202. http://dx.doi.org/10.1037/a0024903

DeRue, D. S. (2011). Adaptive leadership theory: Leading and following as a complex adaptive process. *Research in Organizational Behavior, 31,* 125–150. http://dx.doi.org/10.1016/j.riob.2011.09.007

DeRue, D. S., Nahrgang, J. D., Hollenbeck, J. R., & Workman, K. (2012). A quasi-experimental study of after-event reviews and leadership development. *Journal of Applied Psychology, 97,* 997–1015. http://dx.doi.org/10.1037/a0028244

DeRue, D. S., & Wellman, N. (2009). Developing leaders via experience: The role of developmental challenge, learning orientation, and feedback availability. *Journal of Applied Psychology, 94,* 859–875. http://dx.doi.org/10.1037/a0015317

Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology, 87,* 611–628. http://dx.doi.org/10.1037/0021-9010.87.4.611

Dragoni, L., Park, H., Soltis, J., & Forte-Trammell, S. (2014). Show and tell: How supervisors facilitate leader development among transitioning leaders. *Journal of Applied Psychology, 99,* 66–86. http://dx.doi.org/10.1037/a0034452

Drescher, M. A., Korsgaard, M. A., Welpe, I. M., Picot, A., & Wigand, R. T. (2014). The dynamics of shared leadership: Building trust and enhancing performance. *Journal of Applied Psychology, 99,* 771–783. http://dx.doi.org/10.1037/a0036474

Dvir, T., Eden, D., Avolio, B. J., & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: A field experiment. *Academy of Management Journal, 45,* 735–744. http://dx.doi.org/10.2307/3069307

Eagly, A. H., Johannesen-Schmidt, M. C., & van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men. *Psychological Bulletin, 129,* 569–591. http://dx.doi.org/10.1037/0033-2909.129.4.569

Eagly, A. H., & Johnson, B. T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin, 108,* 233–256. http://dx.doi.org/10.1037/0033-2909.108.2.233

Eagly, A. H., & Karau, S. J. (1991). Gender and the emergence of leaders: A meta-analysis. *Journal of Personality and Social Psychology, 60,* 685–710. http://dx.doi.org/10.1037/0022-3514.60.5.685

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review, 109,* 573–598. http://dx.doi.org/10.1037/0033-295X.109.3.573

Eagly, A. H., Karau, S. J., & Makhijani, M. G. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Psychological Bulletin, 117,* 125–145. http://dx.doi.org/10.1037/0033-2909.117.1.125

Eagly, A. H., Makhijani, M. G., & Klonsky, B. G. (1992). Gender and the evaluation of leaders: A meta-analysis. *Psychological Bulletin, 111,* 3–22. http://dx.doi.org/10.1037/0033-2909.111.1.3

Eden, D., & Leviatan, U. (1975). Implicit leadership theory as a determinant of the factor structure underlying supervisory behavior scales. *Journal of Applied Psychology, 60,* 736–741. http://dx.doi.org/10.1037/0021-9010.60.6.736

Epitropaki, O., & Martin, R. (2004). Implicit leadership theories in applied settings: Factor structure, generalizability, and stability over time. *Journal of Applied Psychology, 89,* 293–310. http://dx.doi.org/10.1037/0021-9010.89.2.293

Epitropaki, O., & Martin, R. (2005). From ideal to real: A longitudinal study of the role of implicit leadership theories on leader-member exchanges and employee outcomes. *Journal of Applied Psychology, 90,* 659–676. http://dx.doi.org/10.1037/0021-9010.90.4.659

Fiedler, F. E. (1964). A contingency model of leadership effectiveness. *Advances in Experimental Social Psychology, 1,* 149–190. http://dx.doi.org/10.1016/S0065-2601(08)60051-9

Fleishman, E. A. (1953a). The description of supervisory behavior. *Journal of Applied Psychology, 37,* 1–6. http://dx.doi.org/10.1037/h0056314

Fleishman, E. A. (1953b). The measurement of leadership attitudes in industry. *Journal of Applied Psychology, 37,* 153–158. http://dx.doi.org/10.1037/h0063436

Flemming, E. G. (1935). A factor analysis of the personality of high school leaders. *Journal of Applied Psychology, 19,* 596–605. http://dx.doi.org/10.1037/h0052228

Foti, R. J., & Hauenstein, N. M. A. (2007). Pattern and variable approaches in leadership emergence and effectiveness. *Journal of Applied Psychology, 92,* 347–355. http://dx.doi.org/10.1037/0021-9010.92.2.347

Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology, 82,* 827–844. http://dx.doi.org/10.1037/0021-9010.82.6.827

Ghiselli, E. E. (1951). New ideas in industrial psychology. *Journal of Applied Psychology, 35,* 229–235. http://dx.doi.org/10.1037/h0055000

Gilmore, D. C., Beehr, T. A., & Richter, D. J. (1979). Effects of leader behavior on subordinate performance and satisfaction: A laboratory experiment with student employees. *Journal of Applied Psychology, 64,* 166–172. http://dx.doi.org/10.1037/0021-9010.64.2.166

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly, 6,* 219–247. http://dx.doi.org/10.1016/1048-9843(95)90036-5

Hackman, J. R., & Wageman, R. (2005). A theory of team coaching. *The Academy of Management Review, 30,* 269–287. http://dx.doi.org/10.5465/AMR.2005.16387885

Hanawalt, N. G., & Richardson, H. M. (1944). Leadership as related to the Bernreuter personality measures: IV. An item analysis of responses of adult leaders and non-leaders. *Journal of Applied Psychology, 28,* 397–411. http://dx.doi.org/10.1037/h0060899

Hannah, S. T., Balthazard, P. A., Waldman, D. A., Jennings, P. L., & Thatcher, R. W. (2013). The psychological and neurological bases of leader self-complexity and effects on adaptive decision-making. *Journal of Applied Psychology, 98,* 393–411. http://dx.doi.org/10.1037/a0032257

Hannah, S. T., Schaubroeck, J. M., Peng, A. C., Lord, R. G., Trevino, L. K., Kozlowski, S. W. J., . . . Doty, J. (2013). Joint influences of individual and work unit abusive supervision on ethical intentions and behaviors: A moderated mediation model. *Journal of Applied Psychology, 98,* 579–592. http://dx.doi.org/10.1037/a0032809

Harrell, W. (1940). Testing cotton mill supervisors. *Journal of Applied Psychology, 24,* 31–35. http://dx.doi.org/10.1037/h0059335

Hater, J. J., & Bass, B. M. (1988). Superiors' evaluations and subordinates' perceptions of transformational and transactional leadership. *Journal of Applied Psychology, 73,* 695–702. http://dx.doi.org/10.1037/0021-9010.73.4.695

Heilman, M. E., Block, C. J., Martell, R. F., & Simon, M. C. (1989). Has anything changed? Current characterizations of men, women and managers. *Journal of Applied Psychology, 74,* 935–942. http://dx.doi.org/10.1037/0021-9010.74.6.935

Herold, D. M., Fedor, D. B., Caldwell, S., & Liu, Y. (2008). The effects of transformational and change leadership on employees' commitment to a change: A multilevel study. *Journal of Applied Psychology, 93,* 346–357. http://dx.doi.org/10.1037/0021-9010.93.2.346

Hoch, J. E., & Kozlowski, S. W. J. (2014). Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of Applied Psychology, 99,* 390–403. http://dx.doi.org/10.1037/a0030264

Hodge, R. D. (2015, October 4). First, let's get rid of all the bosses. *New Republic.* Retrieved October 27, 2015 from http://www.newrepublic.com/article/122965/can-billion-dollar-corporation-zappos-be-self-organized

Hogg, M. A., & Terry, D. J. (2000). Social identity and self-categorization processes in organizational contexts. *The Academy of Management Review, 25,* 121–140.

Hollander, E. P. (1954). Peer nominations on leadership as a predictor of the pass-fail criterion in Naval air training. *Journal of Applied Psychology, 38,* 150–153. http://dx.doi.org/10.1037/h0060761

Hollander, E. P. (1957). The reliability of peer nominations under various conditions of administration. *Journal of Applied Psychology, 41,* 85–90. http://dx.doi.org/10.1037/h0047765

Hollander, E. P. (1958). Conformity, status, and idiosyncrasy credit. *Psychological Review, 65,* 117–127. http://dx.doi.org/10.1037/h0042501

House, R. J. (1977). A 1976 theory of charismatic leadership. In J. G. Hunt & L. L. Larsen (Eds.), *Leadership: The cutting edge* (pp. 189–207). Carbondale, IL: Southern Illinois University Press.

Howell, J. M., & Avolio, B. J. (1993). Transformational leadership, transactional leadership, locus of control, and support for innovation: Key predictors of consolidated-business-unit performance. *Journal of Applied Psychology, 78,* 891–902. http://dx.doi.org/10.1037/0021-9010.78.6.891

Howell, J. P., & Dorfman, P. W. (1981). Substitutes for leadership: Test of a construct. *Academy of Management Journal, 24,* 714–728. http://dx.doi.org/10.2307/256171

Hunter, J. E., & Schmidt, F. L. (1990). *Methods of meta-analysis: Correcting error and bias in research findings.* Newbury Park, CA: Sage.

Ilgen, D. R., & Fujii, D. S. (1976). An investigation of the validity of leader behavior descriptions obtained from subordinates. *Journal of Applied Psychology, 61,* 642–651. http://dx.doi.org/10.1037/0021-9010.61.5.642

Ilies, R., Nahrgang, J. D., & Morgeson, F. P. (2007). Leader-member exchange and citizenship behaviors: A meta-analysis. *Journal of Applied Psychology, 92,* 269–277. http://dx.doi.org/10.1037/0021-9010.92.1.269

Jago, A. G., & Ragan, J. W. (1986). The trouble with LEADER MATCH is that it doesn't match Fiedler's contingency model. *Journal of Applied Psychology, 71,* 555–559. http://dx.doi.org/10.1037/0021-9010.71.4.555

Jenkins, W. O. (1947). A review of leadership studies with particular reference to military problems. *Psychological Bulletin, 44,* 54–79. http://dx.doi.org/10.1037/h0062329

Johnson, R. E., Venus, M., Lanaj, K., Mao, C., & Chang, C.-H. (2012). Leader identity as an antecedent of the frequency and consistency of transformational, consideration, and abusive leadership behaviors. *Journal of Applied Psychology, 97,* 1262–1272. http://dx.doi.org/10.1037/a0029043

Judge, T. A., & Bono, J. E. (2000). Five-factor model of personality and transformational leadership. *Journal of Applied Psychology, 85,* 751–765. http://dx.doi.org/10.1037/0021-9010.85.5.751

Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology, 87,* 765–780. http://dx.doi.org/10.1037/0021-9010.87.4.765

Judge, T. A., Colbert, A. E., & Ilies, R. (2004). Intelligence and leadership: A quantitative review and test of theoretical propositions. *Journal of Applied Psychology, 89,* 542–552. http://dx.doi.org/10.1037/0021-9010.89.3.542

Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology, 89,* 755–768. http://dx.doi.org/10.1037/0021-9010.89.5.755

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,* 36–51. http://dx.doi.org/10.1037/0021-9010.89.1.36

Kark, R., Shamir, B., & Chen, G. (2003). The two faces of transformational leadership: Empowerment and dependency. *Journal of Applied Psychology, 88,* 246–255. http://dx.doi.org/10.1037/0021-9010.88.2.246

Katz, D. (1949). Morale and motivation in industry. In D. Wayne (Ed.), *Current trends in industrial psychology* (pp. 145–171). Pittsburgh, PA: University of Pittsburgh Press.

Kearney, E., & Gebert, D. (2009). Managing diversity and enhancing team outcomes: The promise of transformational leadership. *Journal of Applied Psychology, 94,* 77–89. http://dx.doi.org/10.1037/a0013077

Kerr, S., & Jermier, J. (1978). Substitutes for leadership: Their meaning and measurement. *Organizational Behavior & Human Performance, 22,* 375–403. http://dx.doi.org/10.1016/0030-5073(78)90023-5

Kleiser, G. (1923). *Training for power and leadership.* New York, NY: George H. Doran.

Koenig, A. M., Eagly, A. H., Mitchell, A. A., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin, 137,* 616–642. http://dx.doi.org/10.1037/a0023557

Kohs, S. C., & Irle, K. W. (1920). Prophesying Army promotion. *Journal of Applied Psychology, 4,* 73–87. http://dx.doi.org/10.1037/h0070002

Kozlowski, S. W. J., Gully, S. M., Nason, E. R., & Smith, E. M. (1999). Developing adaptive teams: A theory of compilation and performance across levels and time. In D. R. Ilgen & E. D. Pulakos (Eds.), *The changing nature of work performance: Implications for staffing, personnel actions, and development* (pp. 240–292). San Francisco, CA: Jossey-Bass.

Kozlowski, S. W. J., Watola, D. J., Jensen, J. M., Kim, B. H., & Botero, I. C. (2009). Developing adaptive teams: A theory of dynamic team leadership. In E. Salas, G. F. Goodwin, & C. S. Burke (Eds.), *Team effectiveness in complex organizations: Cross-disciplinary perspectives and approaches* (pp. 113–155). New York, NY: Routledge.

LeBreton, J. M., Scherer, K. T., & James, L. R. (2014). Correction for criterion reliability in validity generalization: A false prophet in a land of suspended judgment. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 7,* 478–500. http://dx.doi.org/10.1111/iops.12184

Lewin, K. (1947). Frontiers in group dynamics: Concept, method and reality in social science; social equilibria and social change. *Human Relations, 1,* 5–41. http://dx.doi.org/10.1177/001872674700100103

Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A longitudinal study on the early development of leader-member exchange. *Journal of Applied Psychology, 78,* 662–674.

Lord, R. G. (1977). Functional leadership behavior: Measurement and relation to social power and leadership perceptions. *Administrative Science Quarterly, 22,* 114–133. http://dx.doi.org/10.2307/2391749

Lord, R. G., De Vader, C. L., & Alliger, G. M. (1986). A meta-analysis of the relation between personality traits and leadership perceptions: An application of validity generalization procedures. *Journal of Applied Psychology, 71,* 402–410. http://dx.doi.org/10.1037/0021-9010.71.3.402

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 & Human Performance, 34,* 343–378. http://dx.doi.org/10.1016/0030-5073(84)90043-6

Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Review, 26,* 356–376.

Marks, M. A., Zaccaro, S. J., & Mathieu, J. E. (2000). Performance implications of leader briefings and team-interaction training for team adaptation to novel environments. *Journal of Applied Psychology, 85,* 971–986. http://dx.doi.org/10.1037/0021-9010.85.6.971

Mathieu, J. E., Heffner, T. S., Goodwin, G. F., Salas, E., & Cannon-Bowers, J. A. (2000). The influence of shared mental models on team process and performance. *Journal of Applied Psychology, 85,* 273–283. http://dx.doi.org/10.1037/0021-9010.85.2.273

McClelland, D. C., & Boyatzis, R. E. (1982). Leadership motive pattern and long-term success in management. *Journal of Applied Psychology, 67,* 737–743. http://dx.doi.org/10.1037/0021-9010.67.6.737

Megargee, E. I. (1969). Influence of sex roles on the manifestation of leadership. *Journal of Applied Psychology, 53,* 377–382. http://dx.doi.org/10.1037/h0028093

Morgeson, F. P. (2005). The external leadership of self-managing teams: Intervening in the context of novel and disruptive events. *Journal of Applied Psychology, 90,* 497–508. http://dx.doi.org/10.1037/0021-9010.90.3.497

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,* 5–39. http://dx.doi.org/10.1177/0149206309347376

Murphy, J. A. (1941). A study of the leadership process. *American Sociological Review, 6,* 674–687. http://dx.doi.org/10.2307/2085506

Nahrgang, J. D., Morgeson, F. P., & Ilies, R. (2009). The development of leader-member exchanges: Exploring how personality and performance influence leader and member relationships over time. *Organizational Behavior and Human Decision Processes, 108,* 256–266. http://dx.doi.org/10.1016/j.obhdp.2008.09.002

Peters, L. H., Hartke, D. D., & Pohlmann, J. T. (1985). Fiedler's contingency theory of leadership: An application of the meta-analysis procedures of Schmidt and Hunter. *Psychological Bulletin, 97,* 274–285. http://dx.doi.org/10.1037/0033-2909.97.2.274

Petty, M. M., & Lee, G. K. (1975). Moderating effects of sex of supervisor and subordinate on relationships between supervisory behavior and subordinate satisfaction. *Journal of Applied Psychology, 60,* 624–628. http://dx.doi.org/10.1037/0021-9010.60.5.624

Podsakoff, P. M., MacKenzie, S. B., & Bommer, W. H. (1996). Meta-analysis of the relationships between Kerr and Jermier's substitutes for leadership and employee job attitudes, role perceptions, and performance. *Journal of Applied Psychology, 81,* 380–399. http://dx.doi.org/10.1037/0021-9010.81.4.380

Reynolds, S. J. (2006). A neurocognitive model of the ethical decision-making process: Implications for study and practice. *Journal of Applied Psychology, 91,* 737–748. http://dx.doi.org/10.1037/0021-9010.91.4.737

Richardson, H. M. (1948). Adult leadership scales based on the Bernreuter personality inventory. *Journal of Applied Psychology, 32,* 292–303. http://dx.doi.org/10.1037/h0056428

Richardson, H. M., & Hanawalt, N. G. (1944). Leadership as related to the Bernreuter personality measures: III. Leadership among adult men in vocational and social activities. *Journal of Applied Psychology, 28,* 308–317. http://dx.doi.org/10.1037/h0058990

Rosen, B., & Jerdee, T. H. (1973). The influence of sex-role stereotypes on evaluations of male and female supervisory behavior. *Journal of Applied Psychology, 57,* 44–48. http://dx.doi.org/10.1037/h0034198

Rosette, A. S., Leonardelli, G. J., & Phillips, K. W. (2008). The White standard: Racial bias in leader categorization. *Journal of Applied Psychology, 93,* 758–777. http://dx.doi.org/10.1037/0021-9010.93.4.758

Roslow, S. (1940). Nation-wide and local validation of the PQ or Personality Quotient test. *Journal of Applied Psychology, 24,* 529–539. http://dx.doi.org/10.1037/h0061608

Schaubroeck, J., Hannah, S., Avolio, B. J., Kozlowski, S. W., Lord, R. L., Trevino, L. K., . . . Peng, A. C. (2012). Embedding ethical leadership within and across organization levels. *Academy of Management Journal, 55,* 1053–1078. http://dx.doi.org/10.5465/amj.2011.0064

Schaubroeck, J., Lam, S. S. K., & Cha, S. E. (2007). Embracing transformational leadership: Team values and the impact of leader behavior on team performance. *Journal of Applied Psychology, 92,* 1020–1030. http://dx.doi.org/10.1037/0021-9010.92.4.1020

Schaubroeck, J., Lam, S. S. K., & Peng, A. C. (2011). Cognition-based and affect-based trust as mediators of leader behavior influences on team performance. *Journal of Applied Psychology, 96,* 863–871. http://dx.doi.org/10.1037/a0022625

Schein, V. E. (1973). The relationship between sex role stereotypes and requisite management characteristics. *Journal of Applied Psychology, 57,* 95–100. http://dx.doi.org/10.1037/h0037128

Schein, V. E. (1975). Relationships between sex role stereotypes and requisite management characteristics among female managers. *Journal of Applied Psychology, 60,* 340–344. http://dx.doi.org/10.1037/h0076637

Schmidt, F. L., & Hunter, J. F. (1977). Development of a general solution to the problem of validity generalization. *Journal of Applied Psychology, 62,* 529–540. http://dx.doi.org/10.1037/0021-9010.62.5.529

Schriesheim, C. A., Castro, S. L., & Cogliser, C. C. (1999). Leader-member exchange (LMX) research: A comprehensive review of theory, measurement, and data-analytic practices. *The Leadership Quarterly, 10,* 63–113. http://dx.doi.org/10.1016/S1048-9843(99)80009-5

Settoon, R. P., Bennett, N., & Liden, R. C. (1996). Social exchange in organizations: Perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology, 81,* 219–227. http://dx.doi.org/10.1037/0021-9010.81.3.219

Shamir, B. (2005). Leaders life stories are social reality: A rejoinder to Gronn. *Leadership, 1,* 491–500. http://dx.doi.org/10.1177/1742715005057235

Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of charismatic leadership: A self-concept based theory. *Organization Science, 4,* 577–594. http://dx.doi.org/10.1287/orsc.4.4.577

Sin, H.-P., Nahrgang, J. D., & Morgeson, F. P. (2009). Understanding why they don't see eye to eye: An examination of leader-member exchange (LMX) agreement. *Journal of Applied Psychology, 94,* 1048–1057. http://dx.doi.org/10.1037/a0014827

Stogdill, R. M. (1948). Personal factors associated with leadership: a survey of the literature. *The Journal of Psychology: Interdisciplinary and Applied, 25,* 35–71. http://dx.doi.org/10.1080/00223980.1948.9917362

Stogdill, R. (1950). Leadership, membership and organization. *Psychological Bulletin, 47,* 1–14. http://dx.doi.org/10.1037/h0053857

Stogdill, R. M., & Shartle, C. L. (1948). Methods for determining patterns of leadership behavior in relation to organization structure and objectives. *Journal of Applied Psychology, 32,* 286–291. http://dx.doi.org/10.1037/h0057264

Strube, M., & Garcia, J. (1981). A meta-analysis investigation of Fiedler's contingency model of leadership effectiveness. *Psychological Bulletin, 90,* 307–321. http://dx.doi.org/10.1037/0033-2909.90.2.307

Sy, T., Côté, S., & Saavedra, R. (2005). The contagious leader: Impact of the leader's mood on the mood of group members, group affective tone, and group processes. *Journal of Applied Psychology, 90,* 295–305. http://dx.doi.org/10.1037/0021-9010.90.2.295

Sy, T., Shore, L. M., Strauss, J., Shore, T. H., Tram, S., Whiteley, P., & Ikeda-Muromachi, K. (2010). Leadership perceptions as a function of race-occupation fit: The case of Asian Americans. *Journal of Applied Psychology, 95,* 902–919. http://dx.doi.org/10.1037/a0019501

Terman, L. M. (1916). *The measurement of intelligence.* Boston, MA: Houghton Mifflin. http://dx.doi.org/10.1037/10014-000

Tralle, H. E. (1925). *Psychology of leadership.* New York, NY: Century.

Turner, N., Barling, J., Epitropaki, O., Butcher, V., & Milner, C. (2002). Transformational leadership and moral reasoning. *Journal of Applied Psychology, 87,* 304–311. http://dx.doi.org/10.1037/0021-9010.87.2.304

van Knippenberg, D., & Sitkin, S. B. (2013). A critical assessment of Charismatic-Transformational leadership research: Back to the drawing board? *The Academy of Management Annals, 7,* 1–60. http://dx.doi.org/10.1080/19416520.2013.759433

Wang, D., Waldman, D. A., & Zhang, Z. (2014). A meta-analysis of shared leadership and team effectiveness. *Journal of Applied Psychology, 99,* 181–198. http://dx.doi.org/10.1037/a0034531

Weber, M. (1924/1947). *The theory of social and economic organization* (T. Parsons & A. M. Henderson, Trans.). New York, NY: Oxford University.

Weiss, H. M., & Adler, S. (1981). Cognitive complexity and the structure of implicit leadership theories. *Journal of Applied Psychology, 66,* 69–78. http://dx.doi.org/10.1037/0021-9010.66.1.69

Woodworth, R. S. (1917). *Personal data sheet.* Chicago, IL: C. H. Stoelting Company.

Woodworth, R. S. (1919). Examination of emotional fitness for warfare. *Psychological Bulletin, 16,* 59–60.

Yaffe, T., & Kark, R. (2011). Leading by example: The case of leader OCB. *Journal of Applied Psychology, 96,* 806–826. http://dx.doi.org/10.1037/a0022464

Yorges, S. L., Weiss, H. M., & Strickland, O. J. (1999). The effect of leader outcomes on influence, attributions, and perceptions of charisma. *Journal of Applied Psychology, 84,* 428–436. http://dx.doi.org/10.1037/0021-9010.84.3.428

Yukl, G. (2012). *Leadership in organizations* (8th ed.). New York, NY: Pearson Prentice Hall.

Yun, S., Faraj, S., & Sims, H. P., Jr. (2005). Contingent leadership and effectiveness of trauma resuscitation teams. *Journal of Applied Psychology, 90,* 1288–1296. http://dx.doi.org/10.1037/0021-9010.90.6.1288

Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2001). Team leadership. *The Leadership Quarterly, 12,* 451–483. http://dx.doi.org/10.1016/S1048-9843(01)00093-5

Zhang, Z., & Peterson, S. J. (2011). Advice networks in teams: The role of transformational leadership and members' core self-evaluations. *Journal of Applied Psychology, 96,* 1004–1017. http://dx.doi.org/10.1037/a0023254