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Vertical flow of collectivistic leadership: An examination of the cascade of visionary leadership across levels

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ABSTRACT

This study explores the connection between formal leaders and collective leadership in teams through the examination of how collective strategic vision flows downward in organizations and the function that formal leaders play in the resulting cascade of collective leadership. Building from a sensemaking framework, we propose that a supervisor's perceptions of the collective navigator role (the establishing and enacting of strategic vision among members of a team) in their immediate supervisor-level work group ultimately links to the collective leadership navigator role in the lower-level team he or she leads thereby illustrating the vertical flow of collective leadership across organizational levels. To understand how this cascading process operates, we propose that two key characteristics of supervisors, their job satisfaction and empowering leadership behaviors, mediate the linkage between collective strategic visions at these different levels. We find support for this connection in our study of teams within a large manufacturing company.

Collectivistic leadership is inherently a multilevel phenomenon as it emerges from individuals within teams resulting in distributed leadership processes (Yammarino, Salas, Serban, Shirreffs, & Shuffler, 2012), yet examinations within this domain that span across multiple organizational levels are rare. The existing literature on collective leadership has largely concentrated on its connection with team effectiveness within a single level, and these studies have been critical to the understanding of the proximal effects of collectivistic leadership on immediate team outcomes (D'Innocenzo, Mathieu, & Kukenberger, 2014; Denis, Langley, & Sergi, 2012; Friedrich, Vessey, Schuelke, Ruark, & Mumford, 2009; Yammarino et al., 2012; Nicolaides et al., 2014; Wang, Waldman, & Zhang, 2014). However, as no single organizational level operates in isolation (House, Rousseau, & Thomas-Hunt, 1995; Klein & Kozlowski, 2000), it is important to understand how constructs at multiple levels link together to influence the emergence of collective leadership (Hackman, 2003; Yammarino, Dionne, Chun, & Dansereau, 2005). Accordingly, the current study examines collective leadership across organizational levels as it trickles down from one level to another. We focus on the supervisor and the role that formal leaders play in connecting collective leadership across these levels in order to foster robust forms of collective leadership within the lower-level team.

To examine this cascading process, we adopt a role perspective (Contractor, DeChurch, Carson, Carter, & Keegan, 2012) within collective leadership (Yammarino et al., 2012). Role perspectives to collective leadership are particularly applicable for teams as they allow for the examination of "a dynamic set of recurring behavior, both expected and enacted, within a particular group context" (Contractor et al., 2012, p. 995). We focus on the collective nature of the navigator role within a team, which is a role that addresses collectively establishing and enacting strategic vision among members of a team (Contractor et al., 2012). Given our

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collective leadership approach (Yammarino et al., 2012), we focus on this navigating role for the team as a whole, both within and across teams, as well as the role of the formal leader in facilitating these strategic visionary behaviors.

Examining collective strategic vision in terms of the collective navigator role is particularly relevant for several reasons. First, existing models have demonstrated that charismatic behaviors such as collective vision cascade between individual leaders across organization levels (Bass, Waldman, Avolio, & Bebb, 1987; Chun, Yammarino, Dionne, Sosik, & Moon, 2009); we seek to build from this foundation and expand these findings by examining the trickle down of collective strategic vision. Second, given our multilevel focus, we seek to examine leadership behaviors that exist across levels of analysis. Strategic vision has been conceptualized and examined across various levels (Chun et al., 2009; Klein & House, 1995; Murphy & Ensher, 2008), lending this particular role to be well suited for the study of the cascade of collective leadership.

Through examining the cascade of collective strategic vision, this research makes several intended contributions to the collective leadership literature. First, the research on the antecedents of collective leadership has largely concentrated on how vertical leadership and self-leadership within the same level of analysis influence collective leadership within a team (Carson, Tesluk, & Marrone, 2007; Denis et al., 2012). However, despite the importance of multilevel factors in understanding organizational processes (Hackman, 2003; House et al., 1995; Klein & Kozlowski, 2000) and leadership (Yammarino et al., 2005), research has yet to fully examine how variables at higher organizational levels impact the cascading of leadership roles. Building from a collective leadership perspective that highlights that nominal or formal leaders are crucial in facilitating collective leadership (Carson et al., 2007; Friedrich et al., 2014; Klein, Ziegert, Knight, & Xiao, 2006; Yammarino et al., 2012), the current study examines how perceptions of collective strategic vision at upper organizational levels are channeled through formal leaders to influence the emergence of the collective navigator role at lower organizational levels. Through explicating this cascading model, the current study broadens the scope of research on collective leadership by demonstrating collective forms of leadership have important theoretical and practical implications for both the immediate team where the collective leadership occurs in addition to other teams lower in the organization. As a result, we establish that the "long arm" of collective leadership extends to both proximal and distal organizational teams thereby highlighting the multilevel nature of collective leadership.

Further, to explain the cascading process of collective strategic vision, we adopt a novel sensemaking perspective to trickle-down models. Sensemaking is a social construction process in which reality emerges as individuals try to make sense of what is occurring or what has occurred in the environment around them (Basu & Palazzo, 2008; Berger & Luckmann, 1967; Maitlis & Christianson, 2014; Weick, 1993). In the organizational context, leaders are thought to first make sense of their own environment through a sensemaking process and then convey this interpretation of reality to employees in a sensegiving process (Dutton & Jackson, 1987; Gioia & Chittipeddi, 1991). We contend that this sensemaking and giving process represents a trickle-down model, such that the beliefs of leaders developed through sensemaking cascade to employees during the sensegiving process. We contend that supervisors' interpretations of the leadership dynamics with their co-workers influences their construal of reality and subsequently influence the manner in which they lead their subordinates (Gioia & Chittipeddi, 1991). Importantly, by applying this novel theoretical lens, we are able to examine the mechanisms of the cascading model of collective leadership rather than simply demonstrating that a cascading process occurs.

Accordingly, we go beyond prior work on the cascading effect of traditional forms of leadership (e.g., Aryee, Chen, Sun, & Debrah, 2007; Bass et al., 1987; Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012; Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009; Schaubroeck et al., 2012) by explaining *how* the cascade effect occurs for collective leadership. In making these arguments, the current study provides a nuanced understanding of trickle-down effects and how they apply to collective leadership. Specifically, we propose that supervisors' job satisfaction and empowering leadership behaviors are the key mechanisms of this cascading process that connect collective leadership across organizational levels. We contend that supervisors who have experienced collective strategic visionary navigator roles within their upper-level team are likely to internalize these norms during the sensemaking process and have greater job satisfaction as a result of their increased responsibility and authority within their team (Cotton, Vollrath, Froggatt, Lengnick-Hall, & Jennings, 1988; Friedrich et al., 2009; Konczak, Stelly, & Trusty, 2000). Based on this satisfaction and resulting positive framing, these supervisors will then be more likely to empower their subordinates during the sensegiving process to similarly share leadership responsibilities within their team (Arnold, Arad, Rhoades, & Drasgow, 2000). Because of increased feelings of empowerment, members of the lower-level team will assume additional responsibilities, lending to increased collective leadership on the lower-level team (Chen, Sharma, Edinger, Shapiro, & Farh, 2011; Lorinkova, Pearsall, & Sims, 2013; Zhang & Bartol, 2010).

Taken together, based on a sensemaking perspective, we propose that collective visionary leadership at upper organizational levels flows to lower organizational levels through influencing supervisors' perceptions (i.e., job satisfaction) and behaviors (i.e., empowering leadership). Because of their position as the formal leader of a team, we suggest that supervisors are the linking pins (Likert, 1961) that facilitate the transmission of collective leadership from the team they participate in with their immediate colleagues to the team of subordinates they manage. As linking pins, supervisors advocate for the success of each of these groups (Graen, Cashman, Ginsburg, & Schiemann, 1977; Likert, 1961) and facilitate communications and the flow of information between the teams (Graen et al., 1977; Likert, 1961). Because of this crucial linking role, we argue that supervisors connect and facilitate the cascade of collective leadership within an organization through a sensemaking process. Fig. 1 summarizes our theoretical model.

Collective leadership

In contrast to the traditional view of a single nominal leader, a growing perspective in the leadership literature is to consider multiple members within a team as leaders in terms of collectivistic leadership (e.g., Carson et al., 2007; Contractor et al., 2012;

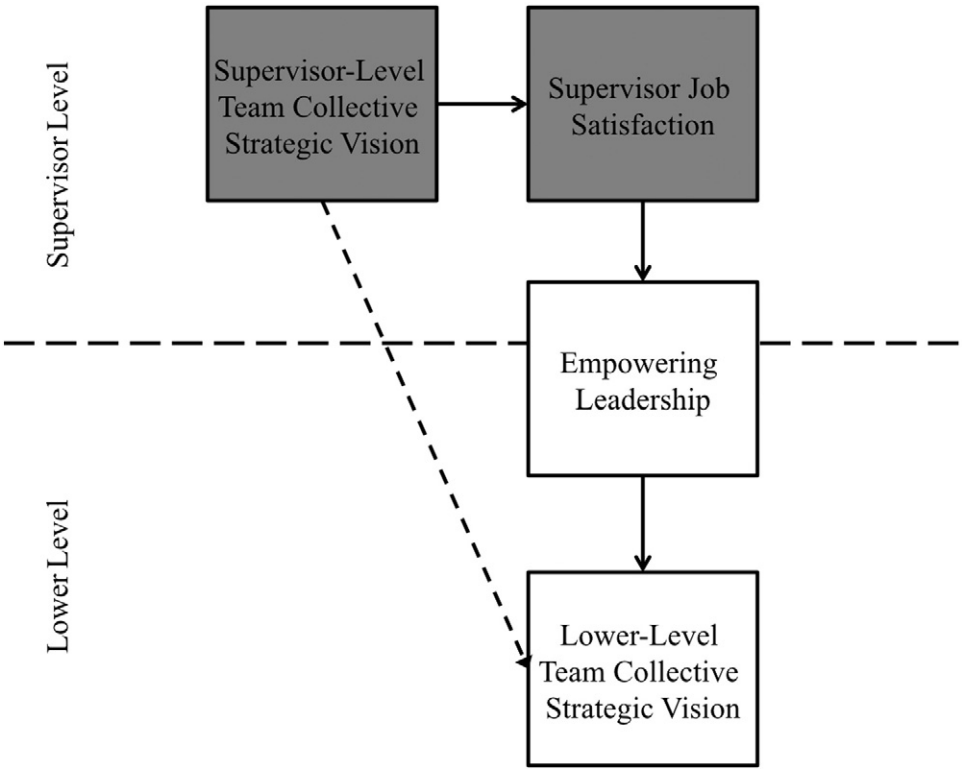

Fig. 1. Hypothesized model.

D'Innocenzo et al., 2014; Denis et al., 2012; Friedrich et al., 2014; Gronn, 2002; Pearce & Conger, 2003; Wang et al., 2014; Yammarino et al., 2012). Yammarino et al. (2012) explicated a typology of collectivistic leadership that identified five distinct approaches to distributed leadership: team leadership, network leadership, shared leadership, complexity leadership, and collective leadership. In this study, we focus on collective leadership for several reasons. First, the collective leadership approach focuses on both within team and cross-level influences from a levels of analysis perspective (Yammarino et al., 2012), which matches with our focus on cascading effects of visionary leadership in terms of the navigator role. Second, the collective leadership approach emphasizes the focal leader role as a key factor in facilitating roles within a team or unit context (Yammarino et al., 2012). This focus on a leader as a hub fits within our conceptualization of the designated leader as a linking pin across levels. Third, collective leadership focuses on situational elements that facilitate the distribution of leadership (Yammarino et al., 2012), which fits within our focus on the key role of empowering leadership. As such, we adopt Yammarino et al.'s definition and conceptualize collective leadership as a "dynamic leadership process in which a defined or focal leader, or set of leaders, selectively utilize skills and expertise within a network, and across levels of analysis and hierarchical levels, effectively distributing elements of the leadership role as the situation or problem at hand requires" (p. 393).

We build from Contractor et al.'s (2012) role-based approach that espouses key roles associated with collective leadership. We specifically examine the collective navigator role in terms of team members collectively engaging in leadership behaviors that include strategic vision and articulation (Conger & Kanungo, 1994; Contractor et al., 2012). Although establishing and communicating vision are behaviors that have been typically reserved for hierarchical leaders, the shifting of power from away from traditional hierarchical constraints is inherent to collective leadership (Yammarino et al., 2012). To explain how the navigator role can be distributed in a team, Contractor et al. (2012) stated, "The navigator role enables the collective to establish and maintain a clear purpose and direction" (p. 998). For example, whereas traditional team structures may have relied on the leader to develop a vision, encourage an entrepreneurial orientation, inspire others, and generate excitement around the team's direction (Conger & Kanungo, 1994), collective strategic vision shifts these role behaviors to the team. Team members may jointly develop and improve upon the vision, may work together to paint a compelling picture of the future, may inspire one another, and may jointly develop and utilize entrepreneurial ideas. Thus, collective strategic vision focuses on transitioning the navigator role from the nominal leader to the collective.

Within organizations, collective leadership behaviors such as the navigator role can exist at multiple organizational levels (Hmieleski, Cole, & Baron, 2012; Yammarino et al., 2012). Given the hierarchical structure of many organizations, teams have a designated supervisor who is positioned as the formal or nominal leader of the team. In addition to leading this team, the supervisor will also be part of a team at a higher organizational level with his or her immediate colleagues that could also engage in collective leadership. As we examine how collective strategic vision in terms of the navigator role flows between organizational levels, we focus on this formal leader as a linking pin such that perceptions of collective leadership within her/his immediate

team influences collective leadership within the team that he or she leads. As illustrated in Fig. 2, and for clarity going forward, we use the term "supervisor-level team" to refer to the upper organizational level and the term "lower-level team" to refer to the team for which the supervisor is the nominal leader.

A sensemaking perspective to cascading collective leadership

Whereas previous literature has posited that various individual leadership behaviors cascade from upper to lower organizational levels, these trickle-down models of leadership have focused on leadership styles that are hierarchical, highly visible, and are often outward-oriented toward lower-level employees—such as ethical leadership (Brown, Trevino, & Harrison, 2005; Mayer et al., 2009; Schaubroeck et al., 2012) and abusive supervision (Aryee et al., 2007; Mawritz et al., 2012; Tepper, 2000). Unlike this nominal leader focus on single individuals, collective leadership behaviors are largely focused within the team in which the collective leadership is occurring and therefore may not be readily visible to other organizational members (Pearce, Yoo, & Alavi, 2004). For example, team members may band together to motivate each other and provide inspiring ideas for the team, thus exhibiting collective strategic vision (Conger & Kanungo, 1994). Whereas the team may see these actions as collective leadership because multiple individuals are fulfilling the navigator role, these actions may not be as readily viewed by those outside the team given that the focus of these behaviors is internal to the team. Similarly, when team members work together to encourage a joint entrepreneurial focus and together develop creative and novel ideas for the team's direction (Conger & Kanungo, 1994), the members of the team will likely recognize this as a type of collective leadership; however, outsiders may rather attribute the ideas to the nominal leader of the team and fail to recognize the emergence of collective leadership within the team.

As a result, unlike previous research on trickle-down leadership models (e.g. Aryee et al., 2007; Bass et al., 1987; Mawritz et al., 2012; Mayer et al., 2009), the traditional theoretical approaches of social-learning theory (Bandura, 1977, 1986) and social-exchange theory (Blau, 1964) do not provide a comprehensive or complete explanatory mechanism for how collective leadership of the navigator role cascades from team to team across levels. Because these theories are based on the notion that social interactions facilitate action (Bandura, 1977, 1986; Blau, 1964), the inward focus and non-traditional emphasis of collective leadership within the team where it is occurring (i.e., those outside the focal team may not readily witness that collective leadership is occurring) curtails the ability of others to fully learn from the collective leadership behaviors of other teams. Therefore, we offer a different theoretical view on the trickle-down model by adopting a sensemaking perspective (Gioia & Chittipeddi, 1991; Maitlis, 2005), which we explicate in the hypotheses below. Building from this perspective, we provide a nuanced viewpoint to explain how collective visionary leadership cascades from one organizational level to another.

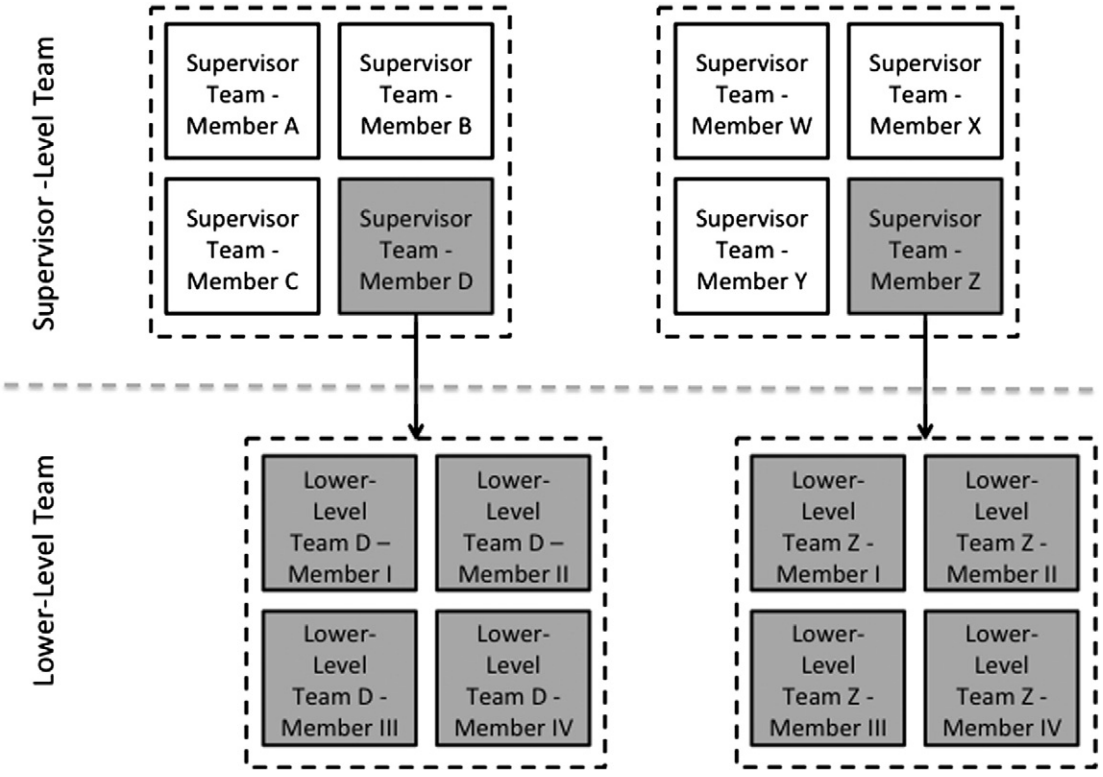

Fig. 2. Supervisor-level team and lower-level team illustration. *Note.* Shaded cells are illustrative of the proposed relationships in the current study. Arrow indicates that the supervisor is hierarchically responsible and is the designated nominal leader for the lower-level team.

Cascade of collective strategic vision across levels

Sensemaking has been defined as "turning circumstances into a situation that is comprehended explicitly in words and that serves as a springboard into action" (Weick, Sutcliffe, & Obstfeld, 2005, p. 409). Sensemaking occurs as individuals attend to salient cues in their environment to try to make sense of their surroundings and create an organized representation of reality to which they can adhere (Basu & Palazzo, 2008; Berger & Luckmann, 1967; Maitlis & Christianson, 2014; Weick, 1993). Within the organizational context, as one of the key functions of their leadership responsibilities, supervisors engage in sensemaking to gain an understanding of the workplace and those within it (Ancona, Malone, Orlikowski, & Senge, 2007). Further, supervisors are a primary source of information that can impact sensemaking in a team because leaders first make sense of their environment and then convey this meaning to their employees (Dutton & Jackson, 1987; Gioia & Chittipeddi, 1991; Maitlis, 2005; Smircich & Stubbart, 1985). Therefore, the sensemaking process of supervisors includes not only making sense of their own environment but also providing this interpretation to their employees through a sensegiving process to assist in their understanding of the workplace.

During the supervisor's sensemaking process, he or she will take cues from the environment of what is expected and what are the norms of behavior (Gioia & Chittipeddi, 1991). If this supervisor perceives that collective strategic vision exists within his or her own supervisor-level team, this norm will influence the reality that the supervisor is creating. As this occurs, the supervisor will internalize the norm that the navigator role should be distributed among team members rather than maintained by the formal leader of a team (Denis et al., 2012; Pearce et al., 2004). Conversely, if the supervisor does not perceive that collective strategic vision exists within the supervisor-level team such that the navigator role is reserved for the formal leader of this supervisor-level team, he or she will have little reason to believe that these behaviors should be shifted from the nominal leader to the team. As such, the constructed reality of the supervisor will be more oriented toward a traditional hierarchical role structure rather than toward collective strategic vision (Denis et al., 2012; Pearce et al., 2004).

After the leader internalizes, these perceptions through the sensemaking process, he or she will attempt to transmit this sense of reality to employees on the lower-level team (Drazin, Glynn, & Kazanjian, 1999; Madjar, Greenberg, & Chen, 2011). If the supervisor's construction of reality includes collective strategic vision-based on the sensemaking process, the supervisor will be likely to attempt to align the lower-level team member's view of reality with his or her own during the sensegiving process (Gioia & Chittipeddi, 1991). During the sensegiving process, supervisors can enact a number of different approaches to transmit their view of reality to those around them: "Through evocative language and the construction of narrative, symbols, and other sensegiving devices, leaders help shape the sensemaking processes of organization members toward some intended definition of reality" (Maitlis & Lawrence, 2007, p. 58). Specifically, sensegiving can occur through communications (Dutton & Jackson, 1987; Gioia & Chittipeddi, 1991; Maitlis, 2005; Smircich & Stubbart, 1985) and through "everyday ordinary interactions" (Cunliffe & Coupland, 2012, p. 81) between the supervisor and the team. As a result of this sensemaking and giving process, we propose that collective strategic vision trickles down between organizational levels.

Hypothesis 1. *Supervisor-level team collective strategic vision is positively related to lower-level team collective strategic vision.*

Mechanisms of the collective strategic vision cascade

To explain the specific mechanisms that underlie this trickle-down effect, we utilize the four-step sensemaking and sensegiving process outlined by Gioia and Chittipeddi (1991). By adopting this model to the current context, we are able to provide insights into the mechanisms that transmit collective leadership across levels. This four-step model represents a trickle-down, or cascading, model of leadership as it examines how followers' behaviors are influenced by a leader's beliefs and actions (Bass et al., 1987; Bowers & Seashore, 1966; Gioia & Chittipeddi, 1991), thereby highlighting the multilevel nature and the salient role of the focal leader for collective leadership. In more detail, this model contends that first a supervisor engages in a sensemaking effort to understand his or her environment. Second, once the supervisor has interpreted and framed his or her perceptions of the environment, he or she will engage in a sensegiving process to communicate this construction of reality to followers. This giving process can occur either through implementing policies and actions and/or through communicating and enacting the interpretation of the reality that emerged in the sensemaking process. Third, the followers engage in their own sensemaking process now to interpret these new activities and communication. Finally, after making sense of this information, the followers will begin their own sensegiving process in which they demonstrate commitment to the new reality and begin acting in accordance with its tenets.

We first focus on the initial two steps of the sensemaking process, which involve the supervisor's perceptions that are generated through the sensemaking process and the supervisor's actions that are a result of the sensegiving process. The sensemaking process begins with individuals internalizing norms, developing a frame of understanding, and placing themselves within this frame to guide their behavior (Bateson, 1972; Drazin et al., 1999; Weick, 1979). This process of meaning making and managing in sensemaking is referred to as framing (Smircich & Morgan, 1982). The frames that are developed during the sensemaking process determine whether or not individuals engage in the activity that is encompassed by the frame (Goffman, 1974). Based on their sensemaking and framing of the situation, individuals will only engage in behaviors that they believe will have a positive and desirable impact (Drazin et al., 1999; Ford, 1996; Kahn, 1990). In other words, supervisors' perceptions regarding the norms of the environment are critical to influencing their subsequent sensegiving actions. This is especially relevant in the

organizational context as "workers' interpretations and sensemaking efforts meet leader-provided frames" (Bean & Hamilton, 2006, p. 323). In other words, subordinates are guided by the frame of their supervisor, which is a key element for providing meaning and influencing behaviors. Prior research has supported this position, explaining that employees look to what they see going on around them to understand and act upon leadership norms (Cullen, Palus, Chrobot-Mason, & Appaneal, 2012).

Thus, the first step in understanding the trickle-down process of collective leadership is to understand supervisors' sensemaking via the frame that nominal leaders place on their experiences. Experiencing collective strategic vision enables one to feel a sense of satisfaction due to the increased accountability and self-direction that accompanies sharing leadership responsibilities and tasks that have traditionally been reserved for a nominal leader such as a CEO (Cotton et al., 1988; Friedrich et al., 2009; Hackman & Oldham, 1976; Konczak et al., 2000). Participation in tasks and decisions along with feelings of ownership are associated with individual job satisfaction (Cotton et al., 1988). Self-directed decision making and feelings of accountability are similarly related to increased job satisfaction (Konczak et al., 2000). Furthermore, the feelings of autonomy and increased responsibility for outcomes that likely accompany sharing strategic vision responsibilities are drivers of job satisfaction (Hackman & Oldham, 1976). Accordingly, supervisors who experience collective strategic vision within the upper-level supervisory team will be more likely to internalize the collective strategic vision norms and positively reflect upon these norms during the sensemaking process, which will manifest in increased levels of job satisfaction. Therefore, we contend that the sensemaking process of supervisors who have collective responsibilities for the navigator role within their team will result in the supervisor positively framing their job experiences, which will manifest in increased job satisfaction.

Once this frame of job satisfaction is created as a result of sharing the navigator role, this interpretation of reality will color the manner in which the supervisor views the workplace and will influence his or her subsequent behaviors. In other words, the supervisor's frame will determine his or her consequent actions (Bateson, 1972; Drazin et al., 1999; Goffman, 1974; Weick, 1979). After internalizing and reflecting on the norms from the environment through this sensemaking, supervisors will then look to convey their view of reality through a sensegiving process. Because of their desire to perpetuate positive behaviors (Drazin et al., 1999; Ford, 1996; Kahn, 1990), supervisors who have a positive frame as evidenced by job satisfaction will subsequently work to convey their view of reality to the employees on the lower-level team and encourage those which they manage to similarly engage in collective strategic visionary behaviors (Drazin et al., 1999; Ford, 1996; Kahn, 1990). Because supervisors act as a key sensegiver to the employees they manage (Cunliffe & Coupland, 2012; Dutton & Jackson, 1987), we propose that supervisors will adopt an empowering style of leadership to similarly facilitate collective strategic vision within the lower-level team.

Empowering leaders encourage their subordinates to act autonomously and assume responsibility through engaging in coaching, informing, participative decision making, leading by example, and demonstrating concern (Arnold et al., 2000). In doing so, empowering leaders emphasize power sharing and collaboration as team norms (Lorinkova et al., 2013; Srivastava, Bartol, & Locke, 2006). Empowering leaders exhibit trust and confidence in the team they manage and allow their subordinates to act with a high level of discretion and without the typical bureaucratic constraints (Lorinkova et al., 2013; Srivastava et al., 2006; Zhang & Bartol, 2010). Directive leaders (Lorinkova et al., 2013) and autocratic leaders (Srivastava et al., 2006) are often contrasted to empowering leaders such that they rely on their positional power to establish clear directions and compliance (House, 1971; Somech, 2006; Yukl & Falbe, 1991). Therefore, whereas leaders who exhibit a high level of empowering leadership encourage participative governance within the team (Arnold et al., 2000), those who exhibit low levels of empowering leadership conversely emphasize traditional hierarchical control resulting in a formal leader perspective (House, 1971; Somech, 2006; Yukl & Falbe, 1991).

Through their sensegiving process, supervisors may enact policies (Maitlis, 2005; Smircich & Stubbart, 1985) that encourage employees to take responsibility for the team's work through strategic direction, or supervisors may encourage team members to develop unique and novel ideas (Conger & Kanungo, 1994). Further, in everyday interactions (Cunliffe & Coupland, 2012), the supervisor may share information regarding performance, finances, or productivity with employees that can help the lower-level team members feel confident in generating, articulating, and implementing their ideas (Conger & Kanungo, 1994). In doing so, supervisors will be coaching and informing their employees in a manner that encourages them to act autonomously and participate in the leadership of the team, corresponding to an empowering style of leadership (Arnold et al., 2000).

Conversely, supervisors who have not witnessed collective strategic vision within their supervisor-level team will be less likely to internalize the norms of collective leadership nor frame them as positive experiences that should be perpetuated given the lower levels of satisfaction. Therefore, during the sensegiving process, these supervisors will be less likely to convey norms of collective leadership (Gioia & Chittipeddi, 1991). As such, the supervisor will be likely to emphasize autocratic leadership, trust in the nominal leader, and compliance with hierarchical direction (House, 1971; Lorinkova et al., 2013; Srivastava et al., 2006; Somech, 2006; Yukl & Falbe, 1991). In doing so, the supervisor will be less likely to exhibit empowering leadership.

Taken together, as supervisors attempt to make sense of their environment, they will interpret and internalize the norms of the team of which they are hierarchically a member. During this sensemaking process, supervisors who have experienced collective strategic vision are more likely to be satisfied due to their increased feelings of importance and impact (Cotton et al., 1988; Friedrich et al., 2009; Hackman & Oldham, 1976; Konczak et al., 2000) than those who are subject to the constraints of directive or authoritarian leadership. Based on this frame, supervisors will then engage in a sensegiving process to transmit their interpretation of reality to the team they hierarchically manage. Supervisors who have witnessed and internalized collective strategic vision from their upper-level team and who have subsequently framed it as contributing to their job satisfaction will encourage the team they manage to similarly engage in collective strategic vision through adopting empowering leadership behaviors. Conversely, supervisors who have not witnessed collective leadership nor incorporated it into their construal of reality during the sensemaking process will internalize the norm of hierarchical management. These supervisors will be less likely to feel a sense

of satisfaction and will have little basis for collective leadership to be part of their internalized norms, and therefore during the sensegiving process, will be less likely enact actions that correspond to empowering leadership.

Hypothesis 2. *Supervisor-level team collective strategic vision has a positive indirect relationship with empowering leadership through supervisor job satisfaction.*

Continuing with the four-step sensemaking and giving process outlined by Gioia and Chittipeddi (1991), employees will subsequently engage in their own sensemaking process to interpret the reality, which the supervisor has largely transmitted via sensegiving and then will begin to act in accordance with these norms. Thus, given the supervisor's level of empowering leadership, the team will engage in a sensemaking process to interpret the supervisor's actions and behaviors. Consistent with a stream of existing research on leadership (e.g., Brown & Treviño, 2006; Burke et al., 2006; Judge & Piccolo, 2004), we propose that empowering leadership is crucial in understanding team members' actions because employees' perceptions of their leaders' expectations and actions are critical drivers of their behaviors, attitudes, and ultimate actions.

Empowering leadership encourages employees to act collaboratively and therefore emphasizes that the team should share the power and decision-making responsibilities within the group (Arnold et al., 2000). Teams led by empowering leaders develop strong team mental models and engage in high levels of team learning behaviors (Lorinkova et al., 2013). Further, empowering leadership is associated with employees' psychological empowerment and correspondingly is associated with engaging in increased beneficial behaviors in teams (Chen et al., 2011; Zhang & Bartol, 2010). Because of their increased belief in themselves and their team and their internal motivation to contribute to the success of the team (Chen et al., 2011; Zhang & Bartol, 2010), the team members are likely to internalize that they should assume additional responsibility within the team. Team members will begin to act independent from the traditional hierarchical constraints on leadership and will begin to influence the functioning of the team. As employees incorporate these new norms into their reality during the sensemaking process, they will begin to act on these expectations that have been established through the supervisor's empowering leadership. In doing so, team members will emerge as leaders and influence each other and the strategic direction of the team (Pearce et al., 2004). This "serial emergence" (Pearce et al., 2004, p. 48) of leaders corresponds to the development of collective roles such as the navigator role on this lower-level team (Denis et al., 2012; Klein et al., 2006; Pearce et al., 2004; Yammarino et al., 2012).

Existing literature supports the connection between empowering leadership and types of collective leadership. For example, prior work has posited that teams who are fully empowered will be characterized by the emergence of leaders and will consequently exhibit collective leadership (Pearce & Barkus, 2004). Further, scholars have proposed that empowerment is a key component of the "theoretical base" of collectivistic leadership (Pearce & Sims, 2002, p. 177). Indeed, this body of research commonly assumes that collective leadership is an expression or manifestation of the existence of employee empowerment (Pearce & Barkus, 2004; Zimmerman, 1990).

Hypothesis 3. *Empowering leadership is positively related to lower-level team collective strategic vision.*

Full cascade of collective strategic vision across levels

Integrating across these hypotheses, we predict that upper-level collective strategic vision cascades to lower-level collective strategic vision through supervisors' job satisfaction and empowering leadership behaviors. In this regard, we expect an indirect effect through these two mediating variables. That is, supervisors' job satisfaction and empowering leadership behaviors are linking mechanisms through which the cascade of collective strategic vision flows.

Hypothesis 4. *Supervisor-level team collective strategic vision has a positive indirect relationship with lower-level team collective strategic vision serially through supervisor job satisfaction and empowering leadership.*

Methods

Sample and procedure

To test the hypotheses, we used a survey-based methodology to collect data from employees in a large, public, Midwestern company. We surveyed members of management who worked in the corporate offices for this manufacturing-focused company. The supervisors ranged from having the title of vice president to the title of manager. The lower-level employees were those who hierarchically reported to the supervisor. In conjunction with the company's senior leadership, we identified teams to whom we distributed two survey versions—one to the supervisor of the team and one to the members of the team. Supervisors were asked to answer questions regarding their perceptions of collective leadership within the supervisor-level team and their own job satisfaction. Team members were asked to answer questions regarding the empowering leadership of their supervisor and collective leadership of the lower-level team. These multiple sources help to minimize common method variance for the hypotheses from which the independent and dependent variable come from different sets of respondents (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In total, we received 181 completed surveys, for a response rate of 67.3%.

The resulting sample consisted of teams that had more than one team member response (all teams meeting this criteria had at least a 50% response rate) and a supervisor response. Based on these requirements, the final sample consisted of 141 usable

responses representing 32 teams with one supervisor and an average of 3.41 team member responses. Teams ranged in size from four to twelve people. On average, supervisors were predominately male (90.6%) and White (84.4%). The large majority of supervisors (74.2%) had over 20 years of work experience. Half of supervisors (50.0%) were over 50 years old with 75.0% holding a bachelor's degree and 53.1% an advanced degree. Team members were largely male (66.1%) and White (75.2%). A large portion of the team sample (64.2%) had over twenty years of work experience. Slightly less than half (45.7%) of the team members had worked with their current supervisor for more than three years and approximately half were over 50 years of age (46.7%). Finally, 60.5% held bachelor's degrees, and 26.6% held advanced degrees.

Measures

All items were measured on a seven-point Likert scale.

Collective strategic vision

Collective strategic vision was measured using an adapted version of the 7-item strategic vision and articulation scale from the C-K measure of charismatic leadership (Conger & Kanungo, 1994). This measure reflects the navigator role as it focuses on formulating and articulating a vision through setting direction. We utilized a referent shift consensus approach (Chan, 1998) to adapt the original measure and capture collective leadership activities through focusing on the referent of work-group members rather than the individual. A sample item is "Members of my work-group consistently generate new ideas for the future of the organization." Lower-level team collective strategic vision was assessed by averaging together team members' responses. The Cronbach alpha for this scale was .95.

Supervisor-level team collective strategic vision was evaluated by utilizing the supervisor's perceptions of supervisor-level team collective strategic vision. This approach was utilized for several reasons. First, the use of a sensemaking perspective underscores the importance of understanding supervisors' perceptions of their environment during the sensemaking process. The use of supervisor's perceptions of the existence of collective leadership is necessary to understand how each supervisor interpreted the world around him or her. Accordingly, measurement using supervisor's perceptions is appropriate as it is congruent with our theory (Yammarino et al., 2005). Further, the use of perceptual collective leadership data for supervisory teams is consistent with prior work by Hmieleski et al. (2012) that measured upper-level collective leadership based on the perceptions of a sole primary informant. Hmieleski et al. (2012) did not find a significant difference between team members' evaluations of collective leadership, providing support for the use of one informant's perceptions of collective leadership for supervisor-level collective leadership. The Cronbach alpha for this scale was .96.

Empowering leadership

Empowering leadership was measured using Srivastava et al. (2006) 15-item condensed version of Arnold et al.'s (2000) scale. A sample item is "Your work-group's immediate supervisor encourages work-group members to express ideas/suggestions." The Cronbach alpha for the scale was .96.

Job satisfaction

Job satisfaction was measured using a 3-item scale developed by Cammann, Fichman, Jenkins, and Klesh (1979) and utilized in Tepper (2000). A sample item is "In general, I like working here." Each supervisor evaluated his or her own job satisfaction. The Cronbach alpha for the scale was .63. Although this reliability is low, the small number of items used in the scale warrants the inclusion of such a variable with a lower alpha score (Hair, Black, Babin, Anderson, & Tatham, 2006). This perspective is due to the fact that scales with a small number of items require high average inter-item correlations to establish a high level of alpha reliability (Cortina, 1993).

Controls

We controlled for team size. This control variable was selected because previous literature has indicated that team size can impact group collaboration and functioning (e.g., Harrison, Price, Gavin, & Florey, 2002; Jackson et al., 1991).

Validation of data structure

To justify the aggregation of individual responses for the measures of lower-level team collective strategic vision and empowering leadership, we examined the agreement and reliability indices and found support for aggregation. Specifically, the mean $r_{wg(j)}$ for collective strategic vision and empowering leadership were .74 and .83, respectively. The ICC(1) for collective strategic vision was .22 and the ICC(2) was .57. For empowering leadership, the ICC(1) was .36 and the ICC(2) was .73. Both ICC(1) values are significant based on a one-way ANOVA, and the ICC(2) values were acceptable, although somewhat low due to the relatively small group size (Bliese, 2000).

Additionally, in order to distinguish the team member-rated constructs, we conducted a confirmatory factor analysis (CFA) to further examine the data structure of those constructs rated by team members: empowering leadership and lower-level team collective strategic vision. We conducted the CFA with individual-level data given the smaller team sample size and consistent with Srivastava et al. (2006), we used a second-order factor model with the underlying five facets of empowering leadership in the model (leading by example, participative decision making, coaching, informing, and showing concern). The results indicate that

the two-factor second-order model of collective strategic vision and empowerment had an acceptable fit ($\chi^2_{(203)} = 397.33$, $p < .001$; CFI = .93, RMSEA = .10, SRMR = .06) (Hu & Bentler, 1999; Mathieu & Taylor, 2006). Conversely, the one-factor second-order model did not fit the data well and was deficient ($\chi^2_{(204)} = 704.52$, $p < .001$; CFI = .80, RMSEA = .15, SRMR = .25). Based on a change in chi-square test, the two-factor second-order model fit significantly better than the one-factor second-order model ($\Delta\chi^2_{(1)} = 307.19$, $p < .001$), thereby demonstrating the appropriateness of examining these constructs separately.

Analyses

Given our relatively small sample, to ensure that no single case unduly influenced our results, we completed a comprehensive outlier analysis (Aguinis, Gottfredson, & Joo, 2013). One group was removed because it was found to be an extreme multivariate outlier based on tests such as Mahalanobis *D*, Studentized deleted residual, Cook's *D*, and centered leverage (Cohen, Cohen, West, & Aiken, 2003). Using our resulting final sample of 31 teams, the hypotheses were examined via hierarchical regression and with Hayes (2013) PROCESS macro for examining mediation and indirect effects.

Our study examines relationships between a supervisor's perceptions of collective leadership in the team of which they are a member, the supervisor's job satisfaction, empowering leadership behaviors toward the team the supervisor manages, and collective strategic vision within that team. Accordingly, regression is an appropriate method to examine the proposed relationships given that we are focused on a single level of analysis, one team. Because of the directional hypotheses, the sample size at the team level of analysis, and consistent with prior research (e.g., Davison, Hollenbeck, Barnes, Sleesman, & Ilgen, 2012; Gross et al., 2011; Seibert, Kraimer, Holtom, & Pierotti, 2013), all regression tests were conducted as one-tail tests. Further, utilizing Hayes's approach, we used bootstrapping analyses to obtain bias-corrected confidence intervals across 5000 bootstrapped samples to examine the proposed relationships (Barclay & Litzenberger, 1988; McWilliams & Siegel, 1997). Because bootstrapped confidence intervals are set to examine the potential for error at both the upper and lower limits of the interval (Preacher & Hayes, 2008) and we are proposing directional hypotheses, a 90% confidence interval (i.e., 5% on the lower and upper bounds) was used to correspond to a p-value of less than .05 in our directional hypotheses. Lastly, all variables were mean centered prior to conducting the analyses (Aiken & West, 1991).

Results

Descriptive statistics and intercorrelations for the study variables appear in Table 1. Hypothesis 1 predicted that supervisor-level collective strategic vision would be positively related to lower-level team collective strategic vision. The results supported this hypothesis (Table 2, Model 2, $\beta = .31$, $p < .05$, $\Delta F = 3.18$, $\Delta R^2 = .10$, CI [.01, .52]).

Hypothesis 2 proposed that supervisor-level collective strategic vision had an indirect effect on empowering leadership through supervisor job satisfaction. Using a stepwise approach, supervisor-level collective strategic vision was positively related to supervisor job satisfaction (Table 2, Model 4, $\beta = .38$, $p < .05$, $\Delta F = 4.90$, $\Delta R^2 = .15$, CI [.06, .49]) and supervisor job satisfaction was positively related to empowering leadership (Table 2, Model 6, $\beta = .61$, $p < .01$, $\Delta F = 16.87$, $\Delta R^2 = .37$, CI [.37, 1.05]). To examine these relationships cohesively with the indirect effect, we utilized Hayes's (2013) PROCESS macro to examine the indirect effect of supervisor-level team collective leadership on empowering leadership through supervisor job satisfaction, and these analyses supported to our proposed hypothesis as the confidence interval excluded zero (Table 3, PE = .20, SE = .11, CI [.05, .40]).

Hypothesis 3 proposed a positive relationship between empowering leadership and lower-level team collective leadership. This hypothesis was supported (Table 2, Model 8, $\beta = .59$, $p < .01$, $\Delta F = 15.24$, $\Delta R^2 = .34$). Further, the confidence interval across 5000 bootstrapped samples indicated that this relationship is significant and in the hypothesized direction (CI [.06, .68]). Finally, although not explicitly hypothesized, we examined the indirect effect of supervisor job satisfaction on lower-level team collective leadership through empowering leadership. This indirect effect was significant and in the expected direction (Table 3, PE = .28, SE = .16, CI [.11, .65]), lending further support to Hypothesis 3.

Hypothesis 4 provided an omnibus examination of our model and examined the indirect effect of supervisor-level team collective strategic vision on lower-level team collective strategic vision serially through job satisfaction and empowerment. Using Hayes's (2013) PROCESS macro to serially examine the mediators, this hypothesis was supported. The indirect effect was

Table 1
Means, standard deviations, and intercorrelations among study variables.

	M	*SD*	1	2	3	4	5
1. Group size	4.81	1.97					
2. Supervisor-level collective strategic vision	4.70	1.22	.03	*.96*			
3. Supervisor job satisfaction	6.42	0.87	−.11	.38*	*.63*		
4. Empowering leadership	5.39	1.07	.15	.30	.59**	*.96*	
5. Lower-level collective strategic vision	4.54	1.04	.19	.32*	.54**	.61**	*.95*

Note. $N = 31$. Cronbach alpha reliabilities are in italics along diagonal.
* $p < .05$.
** $p < .01$.

Table 2
Hierarchical regression analyses.

	H1		H2				H3	
	Lower-level team collective strategic vision		Supervisor job satisfaction		Empowering leadership		Lower-level team collective strategic vision	
	1	2	3	4	5	6	7	8
Group size	.19	.18	−.11	−.12	.15	.21	.19	.10
Supervisor-level team collective strategic vision		.31*		.38*				
Supervisor job satisfaction						.61**		
Empowering leadership								.59**
ΔF	1.10	3.18*	.33	4.90*	.66	16.87**	1.10	15.24**
ΔR^2	.04	.10*	.01	.15*	.02	.37**	.04	.34**
Degrees of freedom	1, 29	1, 28	1, 29	1, 28	1, 29	1, 28	1, 29	1, 28

Note. Entries represent standardized coefficients.
* $p < .05$.
** $p < .01$.

significant and in the expected direction (Table 3, PE = .07, SE = .06, CI [.02, .26]), lending support to Hypothesis 4 and our cohesive model.

In order to highlight the robustness of our results, we conducted post hoc analyses to examine the impact of our data structure because there was potential minor overlap among six supervisors who shared the same upper-level team. First, we controlled for those supervisors with titles indicating team overlap and the results remained consistent with the reported results. Second, we randomly removed overlapping supervisors from six teams, such that the sample was 24 completely independent supervisors with only one supervisor per upper-level team, and the results also remained consistent with the reported results. Overall, the consistency of our findings across these multiple empirical avenues provides support for our theoretical assertion that individuals form their own unique interpretations of their environments through a sensemaking process that flows through their personal job satisfaction. Taken together, these post hoc analyses demonstrate the credence of our analytical approach through (1) demonstrating consistency with our theoretical framing, (2) illustrating the low level of potential overlap among only six teams of supervisors who shared similar titles, and (3) highlighting the consistency of the findings when addressing this overlap through our alternative analyses.

Discussion

This research contributes to the collective leadership literature by illustrating that the perceptions and behaviors of formal leaders facilitate the robustness of collective leadership in lower-level teams as evidenced by the sharing of the navigator role. We demonstrate the nature of this linkage through the flow of collective strategic vision across organizational levels and provide detail for how this cascading effect occurs. The current study demonstrates that, consistent with a sensemaking process (Dutton & Jackson, 1987; Gioia & Chittipeddi, 1991; Maitlis, 2005; Smircich & Stubbart, 1985), the cascade of collective strategic vision through supervisory job satisfaction and empowering leadership has critical effects on the collective strategic vision displayed by lower-level teams.

Theoretical implications

The current study builds on the literature on the cascade of charismatic leadership (Chun et al., 2009; Klein & House, 1995) and the literature on collective leadership (D'Innocenzo et al., 2014; Denis et al., 2012; Friedrich et al., 2009; Yammarino et al.,

Table 3
Bootstrapping analyses.

Relationship examined	PE	SE	LCI	UCI
H1: Supervisor-level team collective strategic vision ➔ lower-level team collective leadership	.27	.15	0.01	0.52
H2: Supervisor-level team collective strategic vision ➔ supervisor job satisfaction	0.28	0.12	0.06	0.49
Supervisor job satisfaction ➔ empowering leadership	0.71	0.20	0.37	1.05
H3: Empowering leadership ➔ lower-level team collective strategic vision	0.37	0.18	0.06	0.68
Indirect effects	PE	SE	LCI	UCI
H2: Supervisor-level team collective strategic vision ➔ supervisor job satisfaction ➔ empowering leadership	0.20	0.11	0.05	0.40
Additional analysis: supervisor job satisfaction ➔ empowering leadership ➔ lower-level team collective strategic vision	0.28	0.16	0.11	0.65
H4: Supervisor-level team collective strategic vision ➔ supervisor job satisfaction ➔ empowering leadership ➔ lower-level team collective strategic vision	0.07	0.06	0.02	0.26

Note. PE = point estimate, SE = standard error, LCI = bias-corrected lower confidence interval utilizing 5000 bootstrapped samples, UCI = bias-corrected upper confidence interval utilizing 5000 bootstrapped samples.

2012; Wang et al., 2014) by utilizing a sensemaking perspective to examine a trickle-down model of collective strategic vision. The proposed relationships and the empirical results provide initial evidence that collective leadership has an important multilevel influence in organizations. Specifically, whereas existing studies have theorized and empirically demonstrated that collective leadership is related to outcomes at the same level, there was a lack of clarity regarding how constructs at multiple levels link together to influence the emergence of collective leadership. Using the navigator role as an example of how collective leadership can trickle down between levels, our research provides evidence that collectivistic types of leadership such as collective strategic vision have a cascading effect in organizations and demonstrate that perceptions of supervisor-level collective strategic vision are a key antecedent of this construct within the lower-level team. This cascading effect of collective strategic vision establishes both the proximal and distant impact that collective leadership can have within an organization. The findings provide evidence of the cross team linkages of collective leadership as the impact of collective leadership roles such as the navigator role have a long-range impact within the organization. Therefore, the current study demonstrates the theoretical need for research to continue considering how factors outside the proximal-unit impact the functioning of collective leadership within teams.

This study also explains more fully how collective strategic vision trickles down through organizations. Although previous studies have similarly examined cascading models of leadership, the current study expands our understanding of these models in two important ways. First, whereas previous cascading models have primarily utilized social-learning theory or social-exchange theory to explain how leadership flows through an organization (e.g., Aryee et al., 2007; Bass et al., 1987; Mayer et al., 2009), the current study adopts a sensemaking perspective (Dutton & Jackson, 1987; Gioia & Chittipeddi, 1991; Maitlis, 2005; Smircich & Stubbart, 1985). In doing so, we provide an additional theoretical lens on the trickle-down model and explain how less outwardly visible types of leadership, such as collective strategic vision, can additionally cascade through an organization. Because previous perspectives on the cascading effect of leadership have largely focused on hierarchically and outwardly oriented leadership styles such as ethical leadership and abusive supervision (e.g. Aryee et al., 2007; Mawritz et al., 2012; Mayer et al., 2009), the sensemaking perspective offers a theoretical viewpoint that can help to explain how more collective forms of leadership transfer between organizational levels. Second, the use of a sensemaking perspective offers a novel theoretical perspective that provides insight into the relationship between collective leadership and empowerment based constructs. Although previous researchers have posited a relationship between collectivistic leadership and empowerment (e.g., Pearce et al., 2004), the current study provides theoretical rationale and supporting empirical results to help clarify the intricate relationship between collective leadership and empowering leadership with a mechanism that explains this relationship: supervisor job satisfaction.

Finally, this study contributes to theory on collective leadership through emphasizing the role that formal leaders play in the trickle-down process. Based on their framing of their experiences as manifested by their job satisfaction, supervisors can either encourage collective strategic vision on the team they manage or can resist sharing power with their subordinates. We demonstrate that formal leaders' perceptions (i.e., job satisfaction) and behaviors (i.e., empowering leadership) are critical to understanding the behaviors of lower-level teams. The importance of a formal leader is reflected in Yammarino et al.'s (2012) conceptualization of collective leadership. As such, a crucial driver of collective leadership roles within lower-level teams originates in the frame and behaviors of the formal leader of the team. Thus, formal leadership and collective leadership are importantly intertwined in understanding the theoretical basis for teams engaging in collective leadership behaviors.

Managerial implications

The popular press has begun to laud collective leadership in a number of organizational settings (Meyer, 2008; Olson, 2010). Building off of this interest in the topic, the current study and analysis offers important insights into the precursors of collective leadership in teams through examining how collective strategic vision cascades through an organization.

Although there has been a strong emphasis on understanding collective leadership *within* teams, the current study illuminates the importance of understanding how collective leadership flows *between* teams. The current study shows that collective leadership in the form of strategic vision flows from upper organizational levels to lower organizational levels through supervisory job satisfaction and empowering leadership. As such, an important way for organizations to encourage collective leadership roles, such as the navigator role, within lower-level teams is to begin by implementing similar types of collective leadership within higher organizational levels. The increased responsibility and autonomy that accompanies collective leadership will be associated with more satisfied formal leaders who will work to perpetuate this norm through engaging in empowering leadership behaviors with the team that they hierarchically manage. Thus, the norm of collective leadership will cascade from upper to lower-level teams and will be accompanied by the increased beneficial elements of heightened satisfaction and empowerment.

Limitations

The current study has a number of limitations. With regards to our data collection, although collecting two sources of data reduces the likelihood of common method variance for most of the proposed relationships (Podsakoff et al., 2003) in terms of Hypotheses 1, 2, and 4, the relationship between empowering leadership and lower-level team collective strategic vision (Hypothesis 3) is from the same source, which suggests that this relationship may be inflated by a same source bias. Additionally, because the collected data is cross-sectional, we are unable to demonstrate causality, and it is possible that the proposed relationships may operate in opposite directions than hypothesized. For example, although it follows from theory that leadership impacts the behavior and actions of team members (e.g., Carson et al., 2007; Srivastava et al., 2006; Zhang & Bartol, 2010), a possibility exists that lower-level team collective strategic vision influences the amount of empowering leadership that the supervisor

exhibits. Future longitudinal studies should continue to explore these relationships to verify the causal nature of the relationships. Additionally, our sample was relatively small as it consisted of 31 teams after removing the outlier data point. However, this small sample size provides a conservative test given the decreased power. We conducted detailed outlier analyses to ensure that a single case was not overly influencing the results. Further, we were able to demonstrate consistency in the results through utilizing the bootstrapping approach with 5000 bootstrapped samples, which provides confidence in the results. Future research could benefit from expanding the current research to additional teams in a variety of settings.

With regards to the choice of measures, we utilized a measure of collective leadership that focuses on strategic vision and articulation through adopting items from Conger and Kanungo's C-K charismatic leadership measure (1994) in order to operationalize the navigator role. This measure was situationally appropriate given that research has encouraged a role perspective on collective leadership (Contractor et al., 2012) and that these types of leadership behaviors have been shown to be relevant across organizational levels (Chun et al., 2009; Klein & House, 1995). However, it is important to note that we cannot fully generalize these results to other types of collective leadership behaviors and roles as they were not examined in this study. Because the antecedents and emergence of the behaviors examined in this study may be unique to the navigator role, researchers should use caution in generalizing these conclusions to other roles and collectivistic approaches to leadership. As such, future research could benefit from examining how other types of collectivistic leadership cascade through organizational levels.

Additionally, in measuring supervisor-level team collective strategic vision, we utilized a perceptual-based measure. We chose to do so to capture supervisors' viewpoints because the proposed sensemaking perspective is dependent on supervisors' unique interpretation of collective strategic vision within their upper-level teams. Additionally, this approach to measuring upper-level collective leadership is consistent with prior research that has demonstrated the sole informants provide accurate representations of upper-level collective leadership (Hmieleski et al., 2012). Despite the relevance of this measure in the current study, a limitation of this study is that our analyses only occurred at one level of analysis despite our articulation of a multilevel model. In order to further test the cascading process, research should examine this relationship across additional levels of analysis to determine the extent to which collective leadership flows through the organization and should expand on the current study's measure of collective leadership by exploring more holistic or objective measures. Further, our measure of collective strategic vision was based on a referent shift perspective utilizing the team as the referent rather than other measures such as network density. While research has illustrated that differing referents in the measurement of collective leadership (e.g., referent shift, individual, network, etc.) has no impact on relationship with outcomes (Wang et al., 2014) and that "there is no 'one best way' to measure shared leadership" (Hoch & Kozlowski, 2014, p. 393), future research could broaden the measurement approach in order to provide a more complete assessment of collective leadership.

With regards to the mechanisms that facilitate the cascade of collective strategic vision, we proposed job satisfaction and empowering leadership align with our sensemaking framework. However, it is possible that there are alternative mechanisms that may also transmit the effects of collective strategic vision across levels. For instance, formal mentorship or shadowing programs may allow lower-level team members access to observe the inner-workings of upper-level teams, in which case social learning may additionally contribute to the cascade of collective leadership. Accordingly, future research should examine how alternative mechanisms can complement the trickle-down process illuminated in this study. Similarly, there may be other multilevel factors beyond the supervisor's perceptions and behaviors that may affect the emergence of collective leadership in the lower-level team. For instance, the workplace climate or structure may be an organizational factor that influences the emergence of collective leadership within teams. Because our sample was within one organization, we were unable to test such organizational factors, however future research should explore how multilevel factors beyond the trickle-down process illustrated in this study effect the emergence of collective leadership.

Additionally, through pulling on the supervisor's framing (i.e., job satisfaction) and behaviors (i.e., empowering leadership), we contend in this study that vertical leadership facilitates the emergence of collective leadership within lower-level teams. However, it is possible that certain types of vertical leadership could curtail rather than encourage collective leadership. Because collective leadership involves transferring roles and behaviors typically reserved for management to employees, some supervisors may discourage this transfer out of a preference to retain power for themselves (Bunderson & Reagans, 2011). Alternatively, supervisors may unintentionally encourage employees to rely on them rather than adopt collective leadership roles within the team. For example, existing literature on transformational leadership has demonstrated that transformational leaders encourage seemingly divergent outcomes among their subordinates—both empowerment and dependence (Kark, Shamir, & Chen, 2003). Thus, it is possible that there are situations when leadership behaviors that are traditionally thought of encouraging employees' autonomous behaviors, such as transformational or empowering leadership, may not encourage collective leadership in lower-level teams. As such, future research should continue to explore the relationship between vertical leadership and collective leadership. Furthermore, future research should seek to explore boundary conditions to the relationships between supervisor characteristics and behaviors with collective leadership.

Finally, we utilized a general measure of job satisfaction to explain supervisors' framing and sensemaking processes. Although we argued that general job satisfaction is a manifestation of the supervisor's sensemaking process regarding collective strategic vision, it is possible that another component of the supervisor's job beyond collective leadership is the primary contributor to a supervisor's evaluations of job satisfaction. In other words, overall job satisfaction may not fully be a result of the norms of collective leadership. While the strong results despite these shortcomings provide evidence of the impact of satisfaction on the sensemaking process, future research should continue to explore how job satisfaction, and more specifically collective leadership satisfaction, impacts the cascading effect of collective leadership within an organization.

Conclusion

The current study contributes to our understanding of the linkage between formal leaders and collective leadership structures in teams based on how collective leadership operates through a cascading process within organizations. Utilizing a sensemaking perspective, we examined how upper-level collective strategic vision, supervisor job satisfaction, empowering leadership, and lower-level collective strategic vision are connected across organizational levels. As such, this study extends existing theory by providing an understanding of how collective leadership is connected across organizational levels through the linking pin of formal leaders.

References

Aguinis, H., Gottfredson, R. K., & Joo, H. (2013). Best-practice recommendations for defining, identifying, and handling outliers. *Organizational Research Methods*, *16*, 270–301. http://dx.doi.org/10.1177/1094428112470848.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions.* Newbury Park, CA: Sage Publications.

Ancona, D., Malone, T. W., Orlikowski, W. J., & Senge, P. M. (2007). In praise of the incomplete leader. *Harvard Business Review*, *85*(2), 92–101 (doi: PMID17345683).

Arnold, J. A., Arad, S., Rhoades, J. A., & Drasgow, F. (2000). The empowering leadership questionnaire: The construction and validation of a new scale for measuring leader behaviors. *Journal of Organizational Behavior*, *21*(3), 249–269. http://dx.doi.org/10.1002/(SICI)1099-1379(200005)21:3<249::AID-JOB10>3.0.CO;2-#.

Aryee, S., Chen, Z., Sun, L., & Debrah, Y. (2007). Antecedents and outcomes of abusive supervision: Test of a trickle-down model. *Journal of Applied Psychology*, *92*(1), 191–201. http://dx.doi.org/10.1037/0021-9010.92.1.191.

Bandura, A. (1977). *Social learning theory.* Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1986). *Social foundations of thought and action.* Englewood Cliffs, NJ: Prentice-Hall.

Barclay, M. J., & Litzenberger, R. H. (1988). Announcement effects of new equity issues and the use of intraday price data. *Journal of Financial Economics*, *21*(1), 71–99. http://dx.doi.org/10.1016/0304-405X(88)90032-3.

Bass, B. M., Waldman, D. A., Avolio, B. J., & Bebb, M. (1987). Transformational leadership and the falling dominoes effect. *Group & Organization Management*, *12*(1), 73–87. http://dx.doi.org/10.1177/105960118701200106.

Basu, K., & Palazzo, G. (2008). Corporate social responsibility: A process model of sensemaking. *Academy of Management Review*, *33*(1), 122–136. http://dx.doi.org/10.5465/AMR.2008.27745504.

Bateson, G. (1972). *Steps to an ecology of mind.* New York, NY: Ballentine Books.

Bean, C. J., & Hamilton, F. E. (2006). Leader framing and follower sensemaking response to downsizing in the brave new workplace. *Human Relations*, *59*(3), 321–349. http://dx.doi.org/10.1177/0018726706064177.

Berger, P. L., & Luckmann, T. (1967). *The sociology construction of reality: A treatise in the sociology of knowledge.* London, England: Penguin Press.

Blau, P. (1964). *Exchange and power in social life.* New York, NY: John Wiley.

Bliese, P. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein, & S. W. Kozlowski (Eds.), *Multi-level theory, research, and methods in organizations* (pp. 349–381). San Francisco, CA: Jossey-Bass.

Bowers, D. G., & Seashore, S. E. (1966). Predicting organizational effectiveness with a four-factor theory of leadership. *Administrative Science Quarterly*, *11*, 238–263. http://dx.doi.org/10.2307/2391247.

Brown, M. E., & Treviño, L. K. (2006). Ethical leadership: A review and future directions. *The Leadership Quarterly*, *17*(6), 595–616. http://dx.doi.org/10.1016/j.leaqua.2006.10.004.

Brown, M. E., Trevino, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, *97*(2), 117–134. http://dx.doi.org/10.1016/j.obhdp.2005.03.002.

Bunderson, J. S., & Reagans, R. E. (2011). Power, status, and learning in organizations. *Organization Science*, *22*, 1182–1194. http://dx.doi.org/10.1287/orsc.1100.0590.

Burke, C. S., Stagl, K. C., Klein, C., Goodwin, G. F., Salas, E., & Halpin, S. M. (2006). What type of leadership behaviors are functional in teams? A meta-analysis. *The Leadership Quarterly*, *17*(3), 288–307. http://dx.doi.org/10.1016/j.leaqua.2006.02.007.

Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). The Michigan Organizational Assessment Questionnaire. Unpublished manuscript, University of Michigan, Ann Arbor, MI.

Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal*, *50*(5), 1217–1234. http://dx.doi.org/10.2307/20159921.

Chan, D. (1998). Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, *83*, 234–246. http://dx.doi.org/10.1037/0021-9010.83.2.234.

Chen, G., Sharma, P. N., Edinger, S. K., Shapiro, D. L., & Farh, J. (2011). Motivating and demotivating forces in teams: Cross-level influences of empowering leadership and relationship conflict. *Journal of Applied Psychology*, *96*(3), 541–557. http://dx.doi.org/10.1037/a0021886.

Chun, J. U., Yammarino, F. J., Dionne, S. D., Sosik, J. J., & Moon, H. K. (2009). Leadership across hierarchical levels: Multiple levels of management and multiple levels of analysis. *The Leadership Quarterly*, *20*(5), 689–707. http://dx.doi.org/10.1016/j.leaqua.2009.06.003.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression: Correlation analysis for the behavioral sciences* (3rd ed.). Hillsdale, NJ: Erlbaum.

Conger, J. A., & Kanungo, R. N. (1994). Charismatic leadership in organizations: Perceived behavioral attributes and their measurement. *Journal of Organizational Behavior*, *15*(5), 439–452. http://dx.doi.org/10.1002/job.4030150508.

Contractor, N. S., DeChurch, L. A., Carson, J., Carter, D. R., & Keegan, B. (2012). The topology of collective leadership. *The Leadership Quarterly*, *23*(6), 994–1011. http://dx.doi.org/10.1016/j.leaqua.2012.10.010.

Cortina, J. M. (1993). What is coefficient alpha: An examination of theory and applications. *Journal of Applied Psychology*, *78*, 98–104. http://dx.doi.org/10.1037/0021-9010.78.1.98.

Cotton, J. L., Vollrath, D. A., Froggatt, K. L., Lengnick-Hall, M. L., & Jennings, K. R. (1988). Employee participation: Diverse forms and different outcomes. *Academy of Management Review*, *13*(1), 8–22. http://dx.doi.org/10.5465/AMR.1988.4306768.

Cullen, K. L., Palus, C. J., Chrobot-Mason, D., & Appaneal, C. (2012). Getting to "we": Collective leadership development. *Industrial and Organizational Psychology*, *5*(4), 428–432. http://dx.doi.org/10.1111/j.1754-9434.2012.01475.x.

Cunliffe, A., & Coupland, C. (2012). From hero to villain to hero: Making experience sensible through embodied narrative sensemaking. *Human Relations*, *65*(1), 63–88. http://dx.doi.org/10.1177/0018726711424321.

Davison, R. B., Hollenbeck, J. R., Barnes, C. M., Sleesman, D. J., & Ilgen, D. R. (2012). Coordinated action in multiteam systems. *Journal of Applied Psychology*, *97*(4), 808–824. http://dx.doi.org/10.1037/a0026682.

Denis, J. L., Langley, A., & Sergi, V. (2012). Leadership in the plural. *The Academy of Management Annals*, *6*(1), 211–283. http://dx.doi.org/10.1080/19416520.2012.667612.

D'Innocenzo, L., Mathieu, J. E., & Kukenberger, M. R. (2014). A meta-analysis of different forms of collective leadership-team performance relations. *Journal of Management*. http://dx.doi.org/10.1177/0149206314525205.

Drazin, R., Glynn, M. A., & Kazanjian, R. K. (1999). Multilevel theorizing about creativity in organizations: A sensemaking perspective. *Academy of Management Review*, *24*, 286–307. http://dx.doi.org/10.5465/AMR.1999.1893937.

Dutton, J. E., & Jackson, S. E. (1987). Categorizing strategic issues: Links to organizational action. *Academy of Management Review*, *12*(1), 76–90. http://dx.doi.org/10.5465/AMR.1987.4306483.

Ford, C. M. (1996). A theory of individual creative action in multiple social domains. *Academy of Management Review*, *21*(4), 1112–1142. http://dx.doi.org/10.5465/AMR.1996.9704071865.
Friedrich, T. L., Vessey, W. B., Schuelke, M. J., Ruark, G. A., & Mumford, M. D. (2009). A framework for understanding collective leadership: The selective utilization of leader and team expertise within networks. *The Leadership Quarterly*, *20*, 933–958. http://dx.doi.org/10.1016/j.leaqua.2009.09.008.
Friedrich, T. L., Vessey, W. B., Schuelke, M. J., Mumford, M. D., Yammarino, F. J., & Ruark, G. A. (2014). Collective leadership and George C. Marshall: A historiometric analysis of career events. *The Leadership Quarterly*, *25*, 449–467. http://dx.doi.org/10.1016/j.leaqua.2013.10.012.
Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Journal*, *12*(6), 433–448. http://dx.doi.org/10.1002/smj.4250120604.
Goffman, E. (1974). *Frame analysis.* Cambridge, MA: Harvard University Press.
Graen, G., Cashman, J. F., Ginsburg, S., & Schiemann, W. (1977). Effects of linking-pin quality on the quality of working life of lower participants. *Administrative Science Quarterly*, *22*(3), 491–504. http://dx.doi.org/10.2307/2392185.
Gronn, P. (2002). Distributed leadership as a unit of analysis. *The Leadership Quarterly*, *13*(4), 423–451. http://dx.doi.org/10.1016/S1048-9843(02)00120-0.
Gross, S., Semmer, N. K., Meier, L. L., Kälin, W., Jacobshagen, N., & Tschan, F. (2011). The effect of positive events at work on after-work fatigue: They matter most in face of adversity. *Journal of Applied Psychology*, *96*(3), 654–664. http://dx.doi.org/10.1037/a0022992.
Hackman, J. R. (2003). Learning more by crossing levels: Evidence from airplanes, hospitals, and orchestras. *Journal of Organizational Behavior*, *24*(8), 905–922. http://dx.doi.org/10.1002/job.226.
Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, *16*(2), 250–279. http://dx.doi.org/10.1016/0030-5073(76)90016-7.
Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, N.J.: Pearson Education Inc.
Harrison, D. A., Price, K. H., Gavin, J. H., & Florey, A. T. (2002). Time, teams, and task performance: Changing effects of surface-and deep-level diversity on group functioning. *Academy of Management Journal*, *45*(5), 1029–1045. http://dx.doi.org/10.2307/3069328.
Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach.* New York, NY: Guilford Press.
Hmieleski, K. M., Cole, M. S., & Baron, R. A. (2012). Shared authentic leadership and new venture performance. *Journal of Management*, *38*(5), 1476–1499. http://dx.doi.org/10.1177/0149206311415419.
Hoch, J. E., & Kozlowski, S. 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.
House, R. J. (1971). A path goal theory of leader effectiveness. *Administrative Science Quarterly*, *16*(3), 321–339. http://dx.doi.org/10.2307/2391905.
House, R., Rousseau, D. M., & Thomas-Hunt, M. (1995). The meso paradigm: A framework for the integration of micro and macro organizational behavior. *Research in Organizational Behavior*, *17*, 71–114.
Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1–55. http://dx.doi.org/10.1080/10705519909540118.
Jackson, S. E., Brett, J. F., Sessa, V. I., Cooper, D. M., Julin, J. A., & Peyronnin, K. (1991). Some differences make a difference: Individual dissimilarity and group heterogeneity as correlates of recruitment, promotions, and turnover. *Journal of Applied Psychology*, *76*(5), 675–689. http://dx.doi.org/10.1037/0021-9010.76.5.675.
Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology*, *89*(5), 755–768. http://dx.doi.org/10.1037/0021-9010.89.5.755.
Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*, 692–724. http://dx.doi.org/10.2307/256287.
Kark, R., Shamir, B., & Chen, G. (2003). The two faces of transformational leadership: Empowerment and dependency. *Journal of Applied Psychology*, *88*(2), 246–255. http://dx.doi.org/10.1037/0021-9010.88.2.246.
Klein, K. J., & House, R. J. (1995). On fire: Charismatic leadership and levels of analysis. *The Leadership Quarterly*, *6*, 183–198. http://dx.doi.org/10.1016/1048-9843(95)90034-9.
Klein, K. J., & Kozlowski, S. W. (2000). From micro to meso: Critical steps in conceptualizing and conducting multilevel research. *Organizational Research Methods*, *3*(3), 211–236. http://dx.doi.org/10.1177/109442810033001.
Klein, K. J., Ziegert, J. C., Knight, A. P., & Xiao, Y. (2006). Dynamic delegation: Shared, hierarchical, and deindividualized leadership in extreme action teams. *Administrative Science Quarterly*, *51*(4), 590–621. http://dx.doi.org/10.2189/asqu.51.4.590.
Konczak, L. J., Stelly, D. J., & Trusty, M. L. (2000). Defining and measuring empowering leader behaviors: Development of an upward feedback instrument. *Educational and Psychological Measurement*, *60*(2), 301–313. http://dx.doi.org/10.1177/00131640021970420.
Likert, R. (1961). *New patterns of management.* New York, NY: McGraw-Hill.
Lorinkova, N. M., Pearsall, M. J., & Sims, H. P. (2013). Examining the differential longitudinal performance of directive versus empowering leadership in teams. *Academy of Management Journal*, *56*(2), 573–596. http://dx.doi.org/10.5465/amj.2011.0132.
Madjar, N., Greenberg, E., & Chen, Z. (2011). Factors for radical creativity, incremental creativity, and routine, noncreative performance. *Journal of Applied Psychology*, *96*(4), 730–743. http://dx.doi.org/10.1037/a0022416.
Maitlis, S. (2005). The social processes of organizational sensemaking. *Academy of Management Journal*, *48*(1), 21–49. http://dx.doi.org/10.5465/AMJ.2005.15993111.
Maitlis, S., & Christianson, M. (2014). Sensemaking in organizations: Taking stock and moving forward. *The Academy of Management Annals*, *8*(1), 57–125. http://dx.doi.org/10.1080/19416520.2014.873177.
Maitlis, S., & Lawrence, T. B. (2007). Triggers and enablers of sensegiving in organizations. *Academy of Management Journal*, *50*(1), 57–84. http://dx.doi.org/10.5465/AMJ.2007.24160971.
Mathieu, J. E., & Taylor, S. R. (2006). Clarifying conditions and decision points for mediational type inferences in organizational behavior. *Journal of Organizational Behavior*, *27*, 1031–1056. http://dx.doi.org/10.1002/job.406.
Mawritz, M. B., Mayer, D. M., Hoobler, J. M., Wayne, S. J., & Marinova, S. V. (2012). A trickle-down model of abusive supervision. *Personnel Psychology*, *65*(2), 325–357. http://dx.doi.org/10.1111/j.1744-6570.2012.01246.x.
Mayer, D. M., Kuenzi, M., Greenbaum, R., Bardes, M., & Salvador, R. B. (2009). How low does ethical leadership flow? Test of a trickle-down model. *Organizational Behavior and Human Decision Processes*, *108*(1), 1–13. http://dx.doi.org/10.1016/j.obhdp.2008.04.002.
McWilliams, A., & Siegel, D. (1997). Event studies in management research: Theoretical and empirical issues. *Academy of Management Journal*, *40*(3), 626–657. http://dx.doi.org/10.2307/257056.
Meyer, A. (2008). Collective leadership offers edge: Wrightwood Capital grows through open communication, push to collaborate. (Chicago Tribune. Retrieved from) http://articles.chicagotribune.com/2008-09-01/business/0808300011_1_wrightwood-capital-cohen-financial-shared-leadership
Murphy, S. E., & Ensher, E. A. (2008). A qualitative analysis of charismatic leadership in creative teams: The case of television directors. *The Leadership Quarterly*, *19*, 335–352. http://dx.doi.org/10.1016/j.leaqua.2008.03.006.
Nicolaides, V. C., LaPort, K. A., Chen, T. R., Tomassetti, A. J., Weis, E. J., Zaccaro, S. J., & Cortina, J. M. (2014). The shared leadership of teams: A meta-analysis of proximal, distal, and moderating relationships. *The Leadership Quarterly*, *25*, 923–942. http://dx.doi.org/10.1016/j.leaqua.2014.06.006.
Olson, P. (2010). SAP: Two heads are better than one. (Forbes. Retrieved from) http://www.forbes.com/2010/02/08/sap-ceo-apothecker-business-technology-software-oracle.html
Pearce, C. L., & Barkus, B. (2004). The future of collective leadership: Combining vertical and collective leadership to transform knowledge work. *The Academy of Management Executive*, *18*(1), 47–59. http://dx.doi.org/10.5465/AME.2004.12690298.
Pearce, C. L., & Conger, J. A. (2003). *Collective leadership: Reframing the hows and whys of leadership.* Thousand Oaks, CA: Sage Publications.
Pearce, C. L., & Sims, H. P. (2002). The relative influence of vertical vs. collective leadership on the longitudinal effectiveness of change management teams. *Group Dynamics: Theory, Research, and Practice*, *6*(2), 172–197. http://dx.doi.org/10.1037/1089-2699.6.2.172.
Pearce, C. L., Yoo, Y., & Alavi, M. (2004). Leadership, social work and virtual teams: The relative influence of vertical vs. collective leadership in the nonprofit sector. In R. E. Riggio, & S. Smith-Orr (Eds.), *Improving leadership in nonprofit organizations: 180–203.* San Francisco, CA: Jossey-Bass.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. http://dx.doi.org/10.1037/0021-9010.88.5.879.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879–891. http://dx.doi.org/10.3758/BRM.40.3.879.

Schaubroeck, J. M., Hannah, S. T., Avolio, B. J., Kozlowski, S. W., Lord, R. G., Treviño, L. K., ... Peng, A. C. (2012). Embedding ethical leadership within and across organization levels. *Academy of Management Journal*, *55*(5), 1053–1078. http://dx.doi.org/10.5465/amj.2011.0064.

Seibert, S. E., Kraimer, M. L., Holtom, B. C., & Pierotti, A. J. (2013). Even the best laid plans sometimes go askew: Career self-management processes, career shocks, and the decision to pursue graduate education. *Journal of Applied Psychology*, *98*(1), 169. http://dx.doi.org/10.1037/a0030882.

Smircich, L., & Morgan, G. (1982). Leadership: The management of meaning. *Journal of Applied Behavioral Science*, *18*(3), 257–273 (doi: 002188638201800303).

Smircich, L., & Stubbart, C. (1985). Strategic management in an enacted world. *Academy of Management Review*, *10*(4), 724–736. http://dx.doi.org/10.5465/AMR.1985.4279096.

Somech, A. (2006). The effects of leadership style and team process on performance and innovation in functionally heterogeneous teams. *Journal of Management*, *32*(1), 132–157. http://dx.doi.org/10.1177/0149206305277799.

Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of Management Journal*, *49*(6), 1239–1251. http://dx.doi.org/10.5465/AMJ.2006.23478718.

Tepper, B. J. (2000). Consequences of abusive supervision. *Academy of Management Journal*, *43*(2), 178–190. http://dx.doi.org/10.2307/1556375.

Wang, D., Waldman, D. A., & Zhang, Z. (2014). A meta-analysis of shared leadership and team effectiveness. *Journal of Applied Psychology*, *99*(2), 181–198. http://dx.doi.org/10.1037/a0034531.

Weick, K. (1979). *The social psychology of organizing* (2nd ed.). New York, NY: McGraw-Hill.

Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly*, *38*(4), 628–652 (doi: 0001–8392/93/3804–0628).

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, *16*(4), 409–421 (doi: orsc.1050.0133).

Yammarino, F. J., Dionne, S. D., Chun, J., & Dansereau, F. (2005). Leadership and levels of analysis: A state-of-the-science review. *The Leadership Quarterly*, *16*(6), 879–919. http://dx.doi.org/10.1016/j.leaqua.2005.09.002.

Yammarino, F. J., Salas, E., Serban, A., Shirreffs, K., & Shuffler, M. L. (2012). Collectivistic leadership approaches: Putting the "we" in leadership science and practice. *Industrial and Organizational Psychology*, *5*(4), 382–402. http://dx.doi.org/10.1111/j.1754-9434.2012.01467.x.

Yukl, G., & Falbe, C. M. (1991). Importance of different power sources in downward and lateral relations. *Journal of Applied Psychology*, *76*(3), 416–423. http://dx.doi.org/10.1037/0021-9010.76.3.416.

Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal*, *53*(1), 107–128. http://dx.doi.org/10.5465/AMJ.2010.48037118.

Zimmerman, M. A. (1990). Taking aim on empowerment research: On the distinction between individual and psychological conceptions. *American Journal of Community Psychology*, *18*(1), 169–177. http://dx.doi.org/10.1007/BF009226.