Human Resource Management Review xxx (2016) xxx–xxx

Contents lists available at ScienceDirect

Human Resource Management Review

journal homepage: www.elsevier.com/locate/humres

The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams

Charles P.R. Scott *, Hairong Jiang, Jessica L. Wildman, Richard Griffith

Florida Institute of Technology, 150 W. University Blvd., Melbourne, FL 32901, United States

ARTICLE INFO

Article history:
Received 1 August 2016
Received in revised form 23 March 2017
Accepted 29 March 2017
Available online xxxx

ABSTRACT

Leadership in today's high-performing teams is a relational process best understood from a multilevel emergent perspective. Implicit theories of leadership and followership play an important role in predicting leader emergence in more traditional hierarchical structures, but are inadequate for understanding and predicting leadership as networks in teams, as they do not consider the complex dynamics of leading and following activities inherent in such structures. To address this theoretical gap, we propose the concept of Implicit Leadership Network Theories (ILNTs) that integrates implicit leadership and followership theories with contemporary social network perspectives of leadership in teams to predict the shape and structure of leadership network emergence and subsequent team outcomes. More specifically, we propose that the combination of team member self-ILNTs (i.e., expectations regarding one's own role within a leadership network) and network-ILNTs (i.e., expectations regarding the prototypical team leadership structure) will shape the emergence and effectiveness of leadership in teams. We describe several prototypical team configurations of ILNTs and discuss implications for future research and human resource management.

1. Introduction

Huge shifts in cultural expectations and organizational structure have swept global enterprises, and today the majority of work is performed in teams. Reports suggest that upwards of 80% of companies with over 100 employees rely on teams to complete everyday work and solve complex problems (Cohen & Bailey, 1997; Peterson, Mitchell, Thompson, & Burr, 2000), and successful team performance has become a key driver of organizational success (Ernst & Young, 2013). Thus, optimizing team performance has become an imperative for organizations.

Effective team leadership is one of the most influential factors in developing high-performance teams (Mathieu, Maynard, Rapp, & Gilson, 2008). However, over the past decade, both organizations and researchers have begun to move away from viewing leadership in terms of traditional hierarchical formal roles. Organizations today are deconstructing these outdated models of leadership, and are being reinvented to operate as flatter networks of teams cooperating to keep pace with unpredictable, fluid challenges (McDowell, Agarwal, Miller, Okamoto, & Page, 2016). Today, organizations are concerned with building the social capital (i.e., connections and interactions among individuals) and overall leadership capacity of our workforces more than ever (Day, Fleenor, Atwater, Sturm, & McKee, 2014). To fully realize the benefits of building the leadership capacity, organizations must expand beyond the constraining focus on single, formal leaders and high potentials, whose span of influence will be limited.

* Corresponding author.
E-mail address: scottc2012@my.fit.edu (C.P.R. Scott).

http://dx.doi.org/10.1016/j.hrmr.2017.03.005
1053-4822/

Rather, organizations must identify ways to enhance the capacity for leadership behaviors and leadership influence shared between every member of these teams.

This concept, most commonly referred to as shared leadership, but more recently and accurately described as "leadership as networks" (Carter, DeChurch, Braun, & Contractor, 2015, p.1), is especially beneficial for teams making complex decisions or performing knowledge-based work (Fausing, Jeppesen, Jønsson, Lewandowski, & Bligh, 2013). Sharing leadership responsibilities within the team can provide performance improvements even in teams with formal leaders (Nicolaides, LaPort, Chen, Tomassetti, Weis, Zaccaro, & Cortina, 2014; Wang, Waldman, & Zhang, 2014). However, little is currently known regarding the specific factors that best enable patterned leadership networks to emerge (Judge, Piccolo, & Kosalka, 2009; Paunova, 2015), and this lack of knowledge limits the ability of researchers and organizations to directly encourage the development of leadership as networks in teams.

While researchers have shown that individual competencies and personality traits predict individual leadership development (e.g., Judge, Bono, Ilies, & Gerhardt, 2002; Judge et al., 2009), implicit theories of leadership and followership also have a powerful impact on the emergence and development of individual leadership (e.g., DeRue & Ashford, 2010; Fairhurst & Grant, 2010; Fairhurst & Uhl-Bien, 2012; Uhl-Bien, Riggio, Lowe, & Carsten, 2014). The impact of implicit theories on the process of emergence and development of leadership is often overlooked at the team level, however. This is unfortunate given that implicit theories of leadership suggest that emergent leadership is co-constructed not only by the leading and following behaviors people engage in, but also by the cognitive structures which guide the perception and facilitation of those behaviors. Historically, these theories focus on the perceptions held by individuals regarding the expected prototypes of leadership and followership and how these perceptions impact leader-follower relationships. However, as they exist now, they do not consider the dynamic interchange of leadership and followership roles that could co-exist in any member of a leadership network. As a result, current implicit theories are inadequate in explaining the emergence of leadership networks in teams.

This knowledge gap makes it difficult to fully understand leadership network emergence and its subsequent effects on emergent team processes and outcomes. This gap in our knowledge also makes it more challenging for organizations to grow or even to identify the leadership capacity at any higher level of analysis within the organization. Furthermore, without a clear understanding of individuals' implicit theories of leadership structure among members of a network, we cannot clearly select or intervene to induce the pattern of leadership network desired to enhance organizational effectiveness.

Thus, to address this need for implicit theories relating to leadership networks in teams, we propose a synthesis of implicit theories and contemporary perspectives of leadership as networks aimed at predicting leadership network emergence in teams. Towards this goal, the paper will (1) review current research on leadership as networks, implicit leadership theories, and implicit followership theories, (2) integrate these theories into a multilevel implicit leadership network theory (ILNT), and (3) propose how various team compositions of ILNTs impact patterns of leadership emergence and team functioning. In addition, this paper will provide testable research propositions meant to stimulate a paradigm shift in team leadership research, along with a few thoughts regarding potential practical applications of this framework.

2. Leadership from a network perspective

For centuries, philosophical and scholarly attention has focused on leaders (Galton, 1869), but in recent decades, scientists have come to understand that leadership is not a static state, as traditional models have suggested, but rather a complex emergent process rooted in the dynamic interaction between leaders and followers (Pearce, Conger & Locke, 2008a). The role of members in many modern teams has become fluid in that one could be taking on leadership roles and responsibilities in one situation or at one time and then switch to a followership role in another situation or time. In addition, leadership has become less hierarchically structured in many organizations, minimizing the differences in power and status between members. This can be true even in teams with a formally assigned team leader, as modern teams often reduce hierarchy to ensure higher levels of collaboration. In other words, hierarchical structures within organizations no longer match the expectations of highly skilled employees nor facilitate the development of innovative solutions to the increasingly complex and interconnected challenges that organizations face. As a result, contemporary leadership models have begun moving towards the perspective of leadership as a team-level relational process in which leader and follower become fluid roles that any member could take on in a given situation (Carter et al., 2015; Nicolaides et al., 2014; Pearce, Manz & Sims, 2008b).

Historically, researchers have used a variety of terms to describe these emerging non-hierarchical perspectives of leadership in teams such as shared leadership (e.g., Carson, Tesluk, & Marrone, 2007; D'Innocenzo, Mathieu, & Kukenberger, 2014; Nicolaides et al., 2014; Wang et al., 2014), distributed leadership (e.g., Gronn, 2002; Spillane, 2012), and collective leadership (e.g., Contractor, DeChurch, Carson, Carter, & Keegan, 2012; Friedrich, Vessey, Schuelke, Ruark, & Mumford, 2009; Hiller, Day, & Vance, 2006). However, because all of these perspectives share commonalities in that they assume leadership in teams is relational, patterned, situated within the context, and can be formal or informal, we suggest they can all be subsumed under, and in fact are more accurately described as, the "leadership as networks" paradigm (Carter et al., 2015; Crawford & LePine, 2013). Therefore, we opt to use network terminology throughout the remainder of the paper.

Leadership as networks can be defined as an emergent relational process of mutual influence between team members, and can be conceptualized as a property of the whole system (Carter et al., 2015; Carson et al., 2007; Day, Gronn, & Salas, 2004; Small & Rentsch, 2011). This new model of leadership is inherently multilevel in that actors (i.e., team members) interact via dynamic leader-follower exchanges within a broader network of leader-follower relationships (Carter et al., 2015). The mutual influence process of leadership is context-bound and inseparable from the social norms, implicit theories, and situations within which these actors operate. It is patterned among the actors within the network because the relationships between various dyads are unique. The unique patterns of mutual influence that emerge within teams are simultaneously shaped by top-down contextual

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

factors as well as bottom-up emergence resulting from the traits, affects, and cognitions of individuals that drive behavioral interactions (DeRue, 2011). Similarly, from a multilevel perspective, every leadership relationship is dependent upon the other relationships that exist within the system (Snijders, 2011), which suggests that the overall composition of the team also impacts the type and pattern of leadership network that emerges. We view this team composition as a compilation model (Kozlowski & Klein, 2000) with a focus on the pattern and variation across member characteristics and interactions. The emergence and construction of leadership as networks, like the emergence of other team processes and interactions, is inherently structural (Crawford & LePine, 2013).

Taking a network approach to conceptualizing and measuring leadership allows for the examination of reciprocal influence processes through patterns of relationships among group members (D'Innocenzo et al., 2014). In network analyses, these relationships are generally discussed in terms of nodes (i.e., actors) and ties (i.e., relationships between those actors; Balkundi & Kilduff, 2006), and the pattern of leadership is typically described by two network-level statistics: density and centrality (D'Innocenzo et al., 2014). Network centrality can be used to describe the extent to which leadership in a network is organized around particular focal points (i.e., centralized around particular leaders) by measuring the number of ties each member has within the network (Wasserman & Faust, 1994). Centralization is useful for understanding the role of individual leaders within a network, as well as for understanding the pattern of the entire network as a whole. Network density, the most common statistic used to describe shared leadership in teams, describes the proportion of network ties that are present in the network compared to the number of all possible ties (Kenny, Kashy, & Cook, 2006). In other words, network density provides an understanding of how "complete" the leadership network is, with all possible ties being present representing the most complete network possible.

When describing the patterning or shape of the leadership network, ideally both density and centrality should be considered in tandem. For instance, when all members fully engage in equally shared leadership, the leadership network reaches maximum density (i.e., all dyads have both leadership and followership ties) and minimum centrality (i.e., leadership is equally distributed among nodes with no actor exerting heavier influence than the others). This conceptualization of a network is consistent with the three fundamental elements of structure suggested by Crawford and LePine (2013). It should also be noted that although network ties are most often perceived as binary (i.e., a tie is either present or absent), our conceptualization takes a weighted network perspective (Newman, 2004) in which network ties may be stronger or weaker. This approach provides a mechanism to study leadership network emergence in such a way that leadership and followership ties can co-exist in member connections but vary in strength.

The empirical research conducted on leadership as networks thus far has mostly focused on its effectiveness and less on the factors that lead to the emergence of these leadership networks. Results of multiple meta-analyses are consistent in supporting that leadership as networks in teams has a beneficial impact on team effectiveness (e.g., D'Innocenzo et al., 2014; Nicolaides et al., 2014; Wang et al., 2014). Beyond the direct relationship between leadership networks and team performance, researchers have found that leadership networks enhance information sharing (Hoch, 2014) and team confidence (Nicolaides et al., 2014), which lead to improved performance. High-density leadership networks are especially helpful in teams involved in complex, knowledge-based tasks (Wang et al., 2014), requiring high levels of mutual interaction, interdependence (Nicolaides et al., 2014), and innovation (Fausing et al., 2013). Leadership networks also provide the necessary support to maintain high performance in virtual teams (Hoch & Kozlowski, 2014). In addition, enactment of leadership as networks combines well with traditional leadership, adding incremental performance gains over and above the impact of traditional hierarchical leadership (Nicolaides et al., 2014).

While relatively little is known about the factors contributing to the emergence of leadership networks in teams, some work has shown that teams with strong positive team climates characterized by shared perceptions of voice, social support, and shared purpose (Carson et al., 2007), and with members who are empowered and coached to engage in leadership activities (Carson et al., 2007; Fausing et al., 2013) are most likely to develop dense network leadership structures. There is also initial evidence that implicit theories of leadership and biases also impact the emergence of leadership networks in teams, with women being less likely to emerge as leaders compared to men even in a shared leadership system (Mendez & Busenbark, 2015). The authors suggested that this unequal emergence of leadership is primarily due to the "agentic" masculine archetype leaders represent. Women are often not seen as agentic, and even female managers are seen as less agentic than male managers (Heilman, Block, Martell, & Simon, 1989).

This gender bias is one example of a specific way that individuals' implicit theories of leadership impact the shape of leadership network emergence in teams. Further, as noted by Wang et al. (2014), people look for different types of leadership, indicating that implicit perceptions of the act of sharing leadership are likely to predict the emergence of leadership networks within teams as well as the outcomes of teams with varying leadership configurations. Since leadership and followership perceptions and behaviors are situated in a complex system of relationships, especially in teams enacting leadership as networks, implicit theories that only focus on one aspect of member behavior (i.e., leading or following) are inadequate in explaining this dynamic interactional process.

In an effort to fill this research gap, we propose a framework of multilevel Implicit Leadership Network Theories (ILNTs) that integrates implicit theories of leaders, followers, and network perspectives of teams to shed light on how and what type of leadership network emerges in leaderless teams, as well as the implications of different compositions of ILNTs on emergent team properties and outcomes. Conceptually, if implicit theories, schemas, and biases impact the emergence of leadership in dyadic pairs (leader-follower) then one would expect that these theories shape the emergence of the overall leadership network in a group or organization. To better explain our proposed framework, we first review the concept of schemas in general as well as contemporary implicit leadership and followership theories.

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

3. Schemas and scripts

Implicit theories are one's internally held schemas about some phenomena, and schemas are the bricks and stones of cognitive processing (Barsalou, 1985). These cognitive frameworks provide structures to help us process social information and make sense of the situation (Gioia & Poole, 1984). Schemas are not only used to categorize and react to others, they are also often targeted at the self or the interpersonal relationships between self and others (Lord, Brown, & Freiberg, 1999). A self-concept is a collection of schemas and self-knowledge regarding a person's competencies, knowledge, attitudes, values, preferences, and aspirations (Van Knippenberg, Van Knippenberg, De Cremer, & Hogg, 2004). Once one has created a collection of schematic knowledge tied to a specific event, a script is formed, and it guides a sequence of appropriate behaviors (Abelson, 1981). Scripts are automatically activated by events, and the typicality, frequency, recency, and complexity of the event collectively impact processing of the script (Gioia & Poople, 1984). Since scripts are mental shortcuts to help us better navigate our environment, the behavioral repertoires linked to the events are generic and prototypical in nature (Schank & Abelson 1977).

Within team and organizational settings, scripts are essential to understanding and responding to events and the behaviors of others. Shaped by previous experience and perception of the events, individuals hold different mental representations of the team, and likely have different understandings and expectations of what constitutes an effective team process or a good leader (Abelson, 1981; Schank & Abelson 1977). However, frequent communication and interaction influence script development (Gioia & Poople, 1984), thereby enhancing team functioning through a convergence of team members' mental structures over time. As proposed by the leader categorization theory, individuals' cognitive schemas of leaders directly influence the perceived effectiveness of the leader (Lord, Foti & DeVader, 1984). In a sense, leadership is to some extent in the eye of the beholder, and effective leaders are ones who display behaviors congruent to members' implicit leadership theories (Fielding & Hogg, 1997). Similarly, individuals' cognitive schemas or implicit theories of followers also affect behaviors expected or considered effective from followers (Uhl-bien et al., 2014).

Implicit theories are fundamental in guiding one's own behaviors and thought processes, either in a leadership or followership role. Since leadership network emergence in teams involves a dynamic interchange of leading and following behaviors between and within all members (Pearce, Conger & Locke, 2008a), implicit theories provide a useful framework by examining the cognitive structures that guide behaviors regarding when and how to lead or be led. Two well-established theories elaborate how schemas influence behaviors respectively from the leader's and the follower's perspective, and will form the basis of our proposed ILNT framework.

4. Implicit leadership and followership theories

Implicit theories of leadership and followership are important predictors of the emergence of leadership within both dyads and larger groups (Junker & Van Dick, 2014). A core assumption of implicit theories is that one's internally held schemas and prototypes shape perception, interpretation, and evaluation of others as either leaders or followers by comparing others' behaviors to the expected behaviors in one's cognitive schemas (Barsalou, 1985; Shondrick, Dinh, & Lord, 2010). Implicit leadership theories (ILTs) are schemas that characterize the traits and behaviors of a typical leader (Epitropaki & Martin, 2005; Lord & Maher, 1991; Offermann, Kennedy, & Wirtz, 1994); whereas implicit followership theories (IFTs) are schemas regarding the expected traits and behaviors of a prototypical follower (Uhl-Bien & Pillai, 2007).

A variety of factors come into play and collectively shape one's ILT, such as culture (Brodbeck et al., 2000; Den Hartog, House, Hanges, Ruiz-Quintanilla, & Dorfman, 1999; Ling, Chia, & Fang, 2000), gender (Deal & Stevenson, 1998; Forsyth, Heiney, & Wright, 1997; Johnson, Murphy, Zewdie, & Reichard, 2008), personality (Schyns & Sanders, 2007), hierarchical level (Den Hartog et al., 1999), experience with leaders (Epitropaki & Martin, 2005), and one's own leadership experience (Epitropaki & Martin, 2004). However, some leadership attributes tend to be universally endorsed, and in general, ILTs are highly related to charismatic or transformational leadership styles and behaviors (Ensari & Murphy, 2003; Gerstner & Day, 1994).

Leadership perception is largely determined by the degree of congruence between the traits and behaviors of the leader and the ILT held by the follower, such that technical competence, causal attributions, and attributions of influence and power are more likely associated with individuals who fit the ILTs (Cronshaw & Lord, 1987; Sy, Shore, Strauss, Shore, Tram, Whiteley, & Ikeda-Muromachi, 2010). In addition, leaders who fit ILTs tend to receive higher ratings in performance evaluations than leaders who do not fit (Abdalla & Al-Hamoud, 2001; Staw & Ross, 1980). When it comes to liking, research shows mixed results in that some studies indicate leaders who fit followers' ideal ILTs receive higher popularity ratings (Foti, Fraser, & Lord, 1982), whereas other studies find the level of congruence between leader and follower-held ILT has no influence on leader liking (Engle & Lord, 1997).

ILTs are key predictors of leadership emergence. High congruence (i.e., match or agreement) between followers' implicit theories and the behaviors or appearance of other means that those “prototypical” leaders and followers are more likely to emerge in groups in those roles. Fulfillment of followers' expectations of leadership enhances one's identification as a leader (Stock & Özbek-Potthoff, 2014) and only when one is truly recognized and perceived as the leader by the followers, can he or she utilize the power and influence to drive team performance (Ensari & Murphy, 2003). High congruence between an individuals' leadership expectations and perceptions of others also correlates with other positive outcomes such as perceived leadership/followership effectiveness (Abdalla & Al-Hamoud, 2001; Porr & Fields, 2006), decision acceptance (Lord, 1985), trust (Sy, 2010), relationship quality (Hollander & Webb, 1955; Sy, 2010), organizational commitment (Epitropaki & Martin, 2004) and job satisfaction (Epitropaki & Martin, 2005).

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

IFTs have received less research attention compared to ILTs, but are equally important in constructing the dyadic leadership-followership relationship. Much like ILTs, IFTs develop through interactions and socialization as individuals form a generalized conceptualization of the common traits and behaviors of a prototypical follower (Lord & Maher, 1993). People hold different IFTs, and the congruence between the leader's IFTs and the follower's behaviors affects the leader's perception of the follower (Sy, 2010). In a self-fulfilling prophecy, individuals who fit the prototypical followership prototypes are more liked and trusted by the leader, tend to receive higher performance ratings, experience higher job satisfaction, and are also more liked by other team members (Eden, 1992; Whiteley, Sy, & Johnson, 2012).

Assumptions and expectations regarding how followers should behave influence the way leaders interpret followers' behaviors, which in turn affects leaders' actions towards the followers (Engle & Lord, 1997; Goodwin, Wofford, & Boyd, 2000). As a result, IFTs shape the leader-follower interactive relationship. Due to the power and status difference between leaders and followers in traditional leadership structures, implicit theories of the followers are often defined by obedience, deference, and passiveness; whereas implicit theories of the leaders are often defined by dominance and power (Konst & Van Breukelen, 2005). Research has also shown some support of more proactive followership schemas where followers engage in upward influence and actively contribute to team outcomes (Uhl-Bien, Graen, & Scandura, 2000; Shamir, 2007).

While it is a general human tendency to categorize people into different groups, such as leaders and followers (Lord, Foti, & Phillips, 1982), the boundary between the two roles is not always distinct. ILTs and IFTs collectively impact leaders' and followers' behaviors, affect, and cognition, and should be examined together in understanding the complex process of leadership network emergence, especially in teams in which the two roles could co-exist in one person.

5. Implicit leadership network theories (ILNTs)

Whereas implicit leadership and followership theories focus mostly on other-oriented schemas, we propose that in order to take into account the inherently multilevel nature of teams, ILNTs are focused both on an individual's perceptions of how one should behave when engaged in both leading and following behaviors and simultaneously considering the impact of the network structure within a group. Hence, the multilevel framework proposed considers (1) the individual's preferred role within the network (self-oriented schema) as well as (2) the nature of the team's overall leadership structure as a whole (network-oriented schema).

Therefore, at the individual level, the ILNT framework guides a typology that categorizes the individual's expected role and place within the network in which they are embedded. At the network level, the ILNT framework guides the expected network structure and exchange of leadership and followership roles within teams. The network- and self-oriented ILNTs interact and jointly determine leadership network emergence, members' behaviors, and team functioning. In later sections, we will discuss how different combinations of ILNTs at the team level lead to differing leadership structures and team outcomes.

5.1. Self-ILNTs

The first level of ILNTs are targeted at individual self-schemas, or a person's theory regarding their own fit to the leader or follower typology (Van Knippenberg et al., 2004). Self-perceptions are especially important in leaderless team settings because they color how individuals perceive each member of the team, including themselves (Lord et al., 1999). In an effort to understand how self-schemas affect leadership network emergence, one should consider the schemas of both the leader and the follower, as members could be simultaneously holding, or switching between, the two roles. Therefore, we synthesize implicit leadership and followership theories, and propose a two-by-two typology of self-oriented ILNTs based on two dimensions: 1) one's expected level of activity (active versus passive) and 2) one's expected level of influence (influential versus receptive; Fig. 1). It is important to note that, in reality, these dimensions are continuous and individuals could fall anywhere between these extremes, but we choose to discuss the ends of the continuum in order to make the theory more interpretable and practically useful.

We selected these dimensions after close examination of current implicit leadership and followership theories. In general, leadership is considered agentic and influential, directing power and influence towards others, whereas followership is described as receiving the influence and acting upon the leadership of others, either actively or passively. These definitional aspects of leadership apply both to dyadic leadership and to leadership as networks. Therefore, a typology based on the two dimensions of one's level of activity and one's level of influence is capable of describing both leadership and followership roles, even when considered from a dynamic network perspective. In particular, these dimensions reflect an individual's self-schemas regarding their own activity and influence within a larger network, which influences their own behaviors and reactions towards the leadership network structure of the team.

Individuals who perceive themselves as more passive are less likely to voluntarily assume a proactive role within a leadership network, whether this role is to lead or to follow. They may take initiative in their roles if contractually required or directly asked, but otherwise, these individuals are likely to react to changes in their environment rather than proactively shape their environment. On the other hand, individuals with active self-ILNTs are more likely to proactively display either leadership or followership behaviors within a leadership network context. In addition to the active-passive dimension, the other self-ILNT dimension we discuss is influential-receptive. Individuals whose self-schemas are more receptive are unlikely to enact influential behaviors, and are far more likely to act in support of others or follow the direction from others. Individuals with influential self-schemas, on the other hand, are likely to drive leadership behaviors within the network as individuals see themselves as leader-like and seek to

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

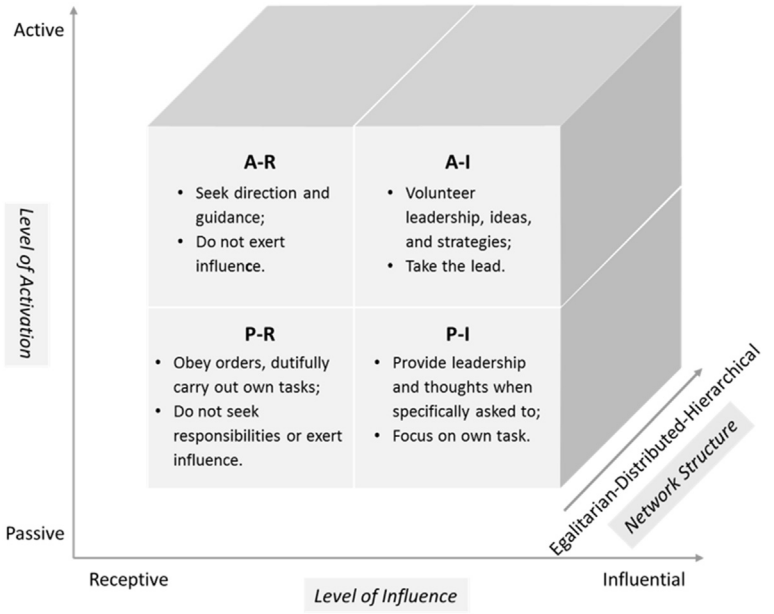


Fig. 1. Integrated implicit leadership network theories (ILNTs).

portray themselves in such a way publically. When in followership roles, these individuals are the ones who actively voice opinions and willingly take on additional responsibilities to make an impact or initiate change.

Combined, these two dimensions form a typology of leadership and followership schemas which, when targeted at the self, describe an individual's expected role within a larger leadership network. This perceived role is likely to be self-fulfilling. Individuals with active-influential self-schemas are more likely to emerge naturally in groups as leaders, active-receptive self-schemas are likely to result in highly engaged, proactive followers, and passive-influential and passive-receptive self-schemas are likely to produce reluctant leaders and/or reactive followers. However, describing the form of a leadership network requires examining more than just an individual's self-schema regarding their role within a team. To that end, it is also important to describe the schemas held regarding the ideal form a leadership network takes.

5.2. Network-ILNTs

Whereas self-ILNTs reflect a person's expectation regarding their role within the leadership network, the second level of ILNTs is focused on the characteristics of a team's overall leadership network structure. These schemas are based upon a person's assumptions regarding the way leaders and followers should interact and the level of equality or hierarchy that should exist within the system as a whole. Network-oriented ILNTs represent individuals' implicit theories regarding how leadership should be organized within a group.

Historically, leadership theories have taken the hierarchical approach, proposing that teams are situated in a hierarchical structure with power highly centralized in individuals holding leadership positions and minimal decision-making authority from followers (Lowe, Kroeck & Sivasubramaniam, 1996; Yukl, 1981). Indeed, this has been the structure teams and organizations functioned under for decades, and as a result, many people likely still believe this is the way leadership should be enacted, and will hold hierarchical leadership structure as their expected network-oriented ILNT, especially in contexts that have maintained traditional hierarchical structures. A hierarchical ILNT is a schema in line with the traditional hierarchical view of leadership that either a single formally appointed or informally emergent leader holds power and the other members assume follower roles within a strict hierarchical arrangement below the leader.

To adapt to the fast-paced and highly competitive global market, businesses are moving towards a leaner and flatter organizational structure, and teams have also evolved to adopt more fluid structures (Cohen & Bailey, 1997). In particular, more egalitarian structures have shown their advantages in rapidly changing and complex environments that require teams to react fast to make decisions, constantly solve problems, and remain highly innovative (Ashkenas, 1995; Edge & Remus, 1984; Stewart & Barrick, 2000). Therefore, a more egalitarian network-oriented ILNT likely emerged that focuses on flat leadership structures in which all members should enact leadership responsibilities. An individual holding an egalitarian ILNT would perceive leadership as a distributed property of the team and expect that any member could and should exert influence and engage in leadership activities under the appropriate situation. In other words, leadership is no longer a static status, but a dynamic, shifting role within the team that ebbs and flows as necessary. No clear hierarchical structure exists within the team, and members accept and embrace both leadership and followership enacted by multiple team members.

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

Hierarchical versus egalitarian ILNTs represent the two conceptual endpoints of a continuum of possible leadership network configurations. However, leadership networks can be patterned in a number of ways that fall somewhere between these ends of the continuum. For the purposes of parsimony, it is not feasible to discuss all possible points along this continuum, and therefore in addition to the endpoints, we focus our discussion on the mid-point of these implicit network theories: distributed ILNTs. As a conceptual mid-point, the distributed ILNT shares some characteristics of both hierarchical and egalitarian network configurations. For illustrative purposes, we focus on a form of distributed ILNT in which team members believe that the team should be led by multiple leaders simultaneously, but that these leaders have clearly distinguishable areas of influence based on their functional areas or responsibilities, and that there is still some hierarchical distance between leaders and followers and potentially between various leaders as well.

Just like individuals can hold different self-ILNTs, they can also hold different network-ILNTs. These two cognitive schemas are highly coupled, and we must consider the pattern of the held network-ILNTs in conjunction with self-ILNTs when examining leadership emergence in teams (Fig. 1). The interaction between self-ILNTs and network-ILNTs jointly shape and reflect individuals' expectations of their own roles and behaviors within the team. The product resulting from this interaction is the individual's role within the group and the level of comfort with the group's emergent leadership configuration. For instance, an individual holding an active-influential self-ILNT, but a hierarchical network-ILNT, is more likely to perceive themselves as the sole leader of a group. In contrast, an individual with an active-influential self-ILNT but an egalitarian network-ILNT will appreciate taking part in a more fully distributed and egalitarian leadership system. The interaction between self- and network-level ILNTs also affects individuals' responses to other members' expectations and behaviors towards them. Passive-receptive individuals see their role as dutifully carrying out tasks when directions are given, and are likely uncomfortable with non-hierarchical network structures, whereas active-receptive individuals believe followers need to actively pursue guidance from leading member(s), but may be less open to network leadership structures where non-formal leaders take control over aspects of leading.

6. Exemplar team-level ILNT configurations

As mentioned previously, network density and centrality are two useful statistics used for conceptualizing the distribution or compactness of leadership within networks, but used alone they do not provide much information regarding the asymmetries and patterns of influence (D'Innocenzo et al., 2014). Therefore, throughout the remaining discussion, we focus on describing emergent leadership network patterns in terms of not only density and centrality, but also using qualitative concepts such as sub-groupings, faultlines, and other asymmetries. We expect that the configuration of both self-ILNTs and network-ILNTs across members within a group will lead to complex and multi-faceted emergent configurations of leadership networks (Zaccaro, Marks, & DeChurch, 2012). Teams are likely composed of individuals holding different ILNTs and thus have very different expectations about their roles and the way leadership should be structured. Based on the varying compositional patterns of team members in terms of these ILNTs, as well as the interactions between self- and network-focused ILNTs, team processes, emergent states, and outcomes will be significantly impacted (Zaccaro et al., 2012). It is important to note that although we discuss the interaction between the two levels of ILNTs with the assumption that they are independent, it is likely that certain types of ILNTs covary. The covariation between the levels of ILNTs will be discussed in more detail in each relevant prototypical example. However, we do not expect this covariation to be perfect, and therefore our discussion of the dimensions assumes the possibility of any combination.

The interaction between the two levels of ILNTs within an individual combined with the endless combination of ILNTs that could be present within teams of varying sizes will create a large number of possible team-level ILNT configurations. In this paper, we present several prototypical ILNT compositions within teams that we expect will result in the most noticeable and meaningful differences in leadership network emergence, and encourage future research to explore the implications of other ILNT configurations not discussed. Fig. 2 illustrates the prototypical team-level ILNT compositions discussed in this paper in a network graphic with weighted network paradigm. These exemplar team compositions portray fully dense networks with all possible leadership and followership connections co-existing between each pair of relationship (D'Innocenzo et al., 2014). However, any combination of stronger or weaker ties and any combination of followership or leadership ties between any dyads are possible, and the strength of each relationship should be viewed on a continuum, rather than based on the simple absence or presence of ties.

Examples of both compositional patterns (i.e., teams with homogenous ILNT composition) and compilational patterns (i.e., teams with heterogeneous ILNT composition; Kozlowski & Klein, 2000) will be discussed. Following the discussions of the selected prototypical team patterns, Tables 1 and 2 show a summary of characteristics of each team composition along with corresponding research propositions.

Key team-level factors (e.g., team size, physical distribution, task interdependence, and communication structure; Wildman, Thayer, Rosen, Salas, Mathieu, & Rayne, 2011) that may change the impact of ILNT composition on network leadership emergence, as well as considerations on temporal effects (Humphrey & Aime, 2014; Mathieu, Tannenbaum, Donsbach, & Alliger, 2014), will also be discussed.

6.1. Homogenous active-influential

Team members who share an active-influential self-ILNT expect that they should actively engage in leadership and influencing behaviors, such as voicing suggestions, taking ownership of aspects of the team's environment (e.g., task ownership), and managing the team's resources. Since teams with all members sharing an active-influential self-ILNT are likely proactive in

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

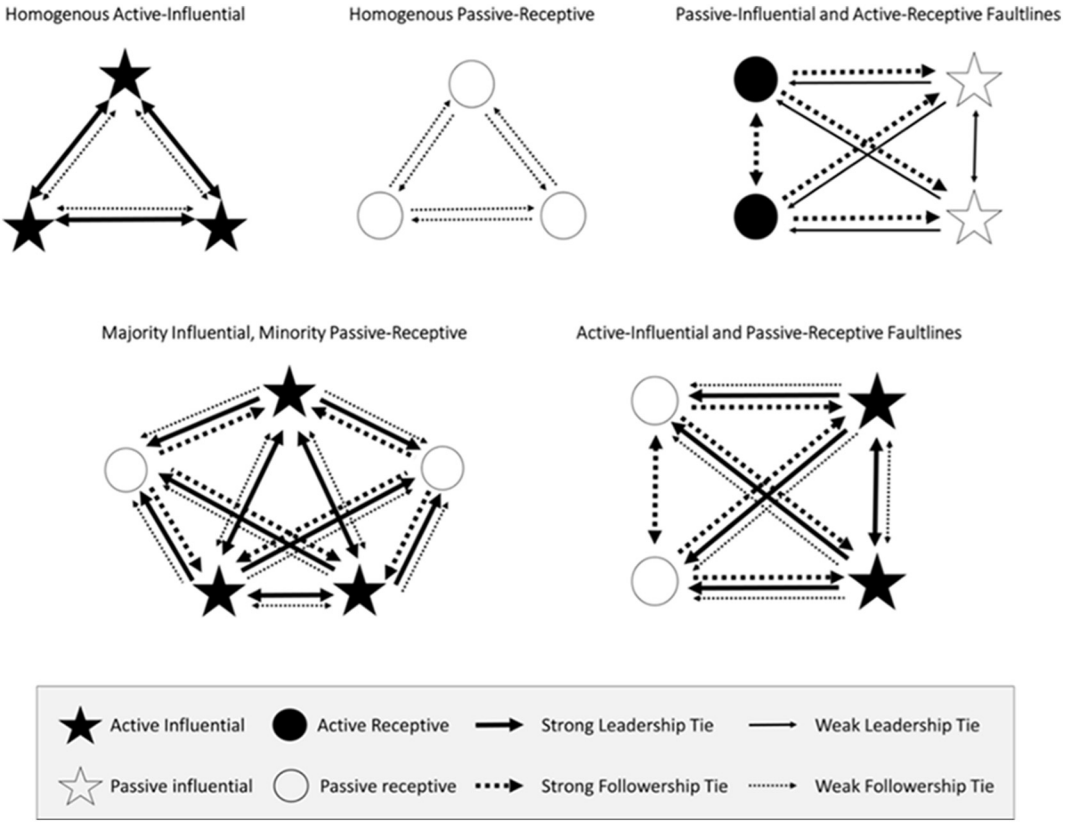


Fig. 2. Graphic representation of prototypical team-level ILNT compositions.

communication and interaction, they will likely develop more congruent knowledge structures more quickly (Wildman, Thayer, Pavlas, Salas, Stewart, & Howse, 2012), and will more actively engage in team processes such as team learning, planning, and coordination (Marks, Mathieu, & Zaccaro, 2001; Zellmer-Bruhn & Gibson, 2006).

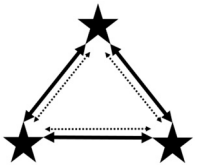
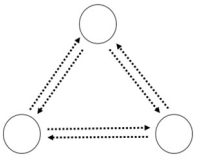
In a homogeneous active-influential self-ILNT configuration, the corresponding network-ILNT is critical for predicting the emerging outcomes. Teams composed of individuals holding active-influential self-schemas and egalitarian network schemas are the most likely to effectively develop a highly dense (D'Innocenzo et al., 2014) leadership network structure. With a high level of congruence between members' cognitive structures (e.g., match between self- and network-ILNTs), each member will actively switch between leader and follower roles as appropriate and will understand, accept, and expect that other members will do the same. This flatter and more inclusive leadership structure likely enhances satisfaction as individuals perceive themselves having more control and influence, as well as creativity, as members are empowered to share differing perspectives (Yang & Ok Choi, 2009). However, holding an egalitarian network-ILNT does not necessarily equate to leadership capability, and issues could arise when members carrying out leadership roles do not have the adequate leadership skills or competencies.

Teams composed of individuals with active-influential self-ILNTs and distributed network-ILNTs would move towards a network structure with multiple leaders overseeing different functional areas or divisions. Team members, due to their proactive nature, will likely claim leadership in situations in which they have specialized expertise (Wildman et al., 2012). However, unless there are enough "openings" or areas of specialization for each member to take charge over a portion of the project, conflict may emerge between members who seek to exert influence in the same manner and chafe when feeling they do not have a voice. These teams are most likely to benefit from improved role clarity and shared cognitive structures like transactive memory systems (Ren & Argote, 2011) that make each member's specialized knowledge and expertise salient to the team. An example of this type of team is an expert cross-functional research project team wherein each team member volunteers their highly-trained and specialized ideas, insights, and functional expertise while listening to and considering the expertise and ideas of others.

Finally, teams composed of individuals with active-influential self-ILNTs and hierarchical network-ILNTs will likely experience power struggles as each team member strives to take unilateral control over the leadership functions of the team. Conflicts and dissatisfaction will likely arise without an enforced hierarchical structure that appoints a formal leader to reduce role ambiguity. When managed well by a skilled formal leader who can ensure that all members have influence and a say in the direction of the team, these types of teams may be effective and engaged. However, without good management, the conflict and tensions as team member vie for power may potentially overwhelm any benefits provided to the team. In addition, politics will likely come into play, and members may develop different agendas and form subgroups, which will hinder team processes and effectiveness (Witt et al., 2001). For example, if the same expert cross-functional research project team discussed previously was composed

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

Table 1
Summary of homogeneous active-influential and passive-reception team compositions.

Team prototype	Team dynamics	Research propositions
Homogenous Active-Influential All members prefer proactively engage in influencing behaviors. 	*With egalitarian network-ILNTs* • Smooth and active transition between leading and following behaviors among all members; • The most dense and viable leadership network; • Enhanced member satisfaction, engagement, and creativity.*With distributed network-ILNTs* • Multiple leaders dividing up functional areas; • Conflicts may arise when there is overlap or ambiguity in members' specialized expertise.*With hierarchical network-ILNTs* • Each member striving to be the central leader; • Likely to experience power struggles and member dissatisfaction; • Works best when managed by a highly-skilled appointed leader.	**Proposition 1.** Egalitarian, active-influential teams are the most likely to develop strong, dense, and effective leadership networks. **Proposition 2.** Hierarchical, active-influential teams are the most likely to experience conflict and political behavior.
Homogenous Passive-Receptive No members prefer proactively engage in influencing behaviors. 	*With egalitarian network-ILNTs* • Members unlikely to hold egalitarian ILNTs;*With distributed network-ILNTs* • Members unlikely to hold distributed ILNTs; *With hierarchical network-ILNTs* • Likely develop ineffective leadership structure with laissez-faire or reactive leadership style; • Need external force to impose leadership structure and require continuous coaching and guidance. • Decrease in satisfaction, creativity, productivity, and team performance.	**Proposition 3.** Individuals holding passive--receptive self-ILNTs are more likely to hold hierarchical network-ILNTs. **Proposition 4.** Homogenous passive-receptive teams are unlikely to develop leadership without external intervention or assistance. **Proposition 5.** Homogenous passive-receptive teams are likely to experience low levels of satisfaction, engagement, and performance if forced into a high density leadership structure.

of individuals with hierarchical network-ILNTs, they will likely still volunteer their own ideas and expertise but rather than accepting the insights of others, they may guard their positions and discount the contributions made by others. In sum, teams composed of individuals with active-influential self-ILNTs are the most likely to result in strong, dense leadership networks, but they are also the most likely to experience conflict when negotiating the emerging leadership structure, depending on the accompanying network-ILNT.

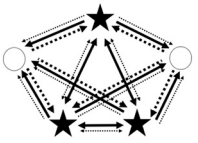
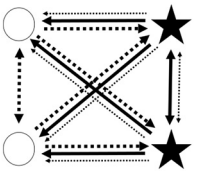
6.2. Homogenous passive-receptive

We expect teams with a homogenous passive-receptive self-ILNT composition to be the least likely to manifest a strong or dense leadership network, regardless of network-ILNT. A laissez-faire style of leadership is most likely to emerge, resulting in a form of reactive leadership focused on dealing with problems as they occur. Passive-receptive teams that are not well managed from an external perspective are likely to be the least productive, least creative, and engage in the least effective team processes. One common example of this team type is the stereotypical under-functioning student project team with a low-stakes project. If no formal leader is assigned and all students prefer followership roles rather than leadership roles, the team is likely to avoid working on the project, procrastinate until the last minute, and engage in minimal communication throughout the project, especially when accountability is vague.

Furthermore, we expect that the most common network-ILNT that will be held by passive-receptive individuals will be a highly hierarchical one, because a hierarchical network schema is most congruent with the desire to engage in passive followership behaviors. Since these individuals perceive themselves as primarily followers, they are by nature less likely to hold egalitarian ILNTs, given that an egalitarian network schema would require them to expect all team members, including themselves, to engage

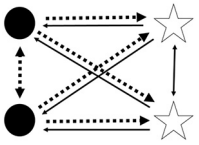
Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

Table 2
Summary of subgroup and faultline team compositions.

Team prototype	Team dynamics	Research propositions
Majority active-influential/minority passive-receptive Majority members prefer proactively engaging in influencing behaviors, while minority members prefer not engaging at all. 	*With egalitarian network-ILNTs* • Most likely to develop high density leadership network; • Active-influential members guide the passive-receptive members in sharing of influence.*With a mix of egalitarian/hierarchical network-ILNTs* • Passive-receptive members likely withdraw or experience frustration when asked to perform leadership roles.*With hierarchical network-ILNTs* • Power struggles and politics likely occur among active-influential members who compete for followership from passive-receptive members; • Confusion of responsibilities.	**Proposition 6.** In majority active-influential/minority passive-receptive teams, the passive-receptive subgroup is likely to experience withdrawal or ostracism. **Proposition 7.** In majority active-influential/minority passive-receptive teams, members are likely to experience increased task and role ambiguity during early stages of team formation, leading to increased team conflict and negative affective states.
Active-influential/passive-receptive faultlines Half of the team prefers proactively engaging in influencing behaviors and half prefers not engaging at all. 	*With a mix of egalitarian/hierarchical network-ILNTs* • Differences in expectations lead to frustration and role ambiguity; • Power struggles likely occur among members holding hierarchical network-ILNT and active-influential self-ILNTs.*With distributed network-ILNTs* • Leadership network centralized in the active-influential sub-group, with passive-receptive members acting as traditional followers.	**Proposition 8.** In split active-influential/passive-receptive teams, leadership emergence will be centralized in the active-influential subgroup. **Proposition 9.** In split active-influential/passive-receptive teams, team interactions and outcomes will be the most effective when members hold distributed-ILNTs. **Proposition 10.** In split active-influential/passive-receptive teams, individuals holding egalitarian network-ILNTs are more likely to be frustrated by the lack of leadership provided by the passive-receptive subgroup. **Proposition 11.** In split active-influential/passive-receptive teams combined with egalitarian or hierarchical network-ILNTs, achieve a stable leadership network structure will take longer compared to distributed network-ILNTs.
Passive-influential/active-receptive faultlines Half of the team prefers exhibiting leadership behaviors only when requested to and half prefers seeking leadership to follow.	*With majority egalitarian network-ILNTs* • Network leadership may occur under pressure to fulfill task demand.*With mixed network-ILNTs*	**Proposition 12.** Split passive-influential/active-receptive teams will likely experience conflict and dissatisfaction early in the team's lifespan as team members struggle with lack of naturally emerging leadership.

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

Table 2 *(continued)*

Team prototype	Team dynamics	Research propositions
	• Role ambiguity and diffusion of responsibilities likely occur in initial stages, leading to dissatisfaction and underperformance; • One member likely emerge as the leader (self-emerge or appointed by the team), with other members assuming follower roles.	**Proposition 13.** In split passive-influential/active-receptive teams, over time and under enough pressure, one or more passive-influential individuals will reluctantly emerge as leader(s) in order to reduce ambiguity. **Proposition 14.** Split passive-influential/active-receptive teams are more likely to develop leadership network structures that are transactional and task-focused.

in some level of leadership. Without interventions to change these self-ILNTs, these individuals are likely to feel hesitant and uncomfortable leading others, and even a hierarchical leadership structure is unlikely to emerge in the absence of any active-influential team members. It is possible that, under high stress and high stakes task conditions, team members may pressure or "elect" the team member closest to active-influential on the continuum to lead as a way of reducing ambiguity. However, the elected individual will likely require assistance or coaching in building quality leadership skills and mindset.

Although a combination of passive-receptive self-ILNTs and more distributed or egalitarian network schemas are less likely to naturally occur, they are still theoretically possible. Individuals holding these combinations of ILNTs will still be predisposed to prefer followership roles, but they should be more comfortable with holding leadership positions when such responsibility is imposed on them, such as through organizational policies or an outside coach or mentor. When these members are provided concrete direction regarding their expected leadership contributions to the team, they may engage in leadership activities by perceiving those behaviors as following directions. Continuous coaching, leadership development, and support are essential to ensure these types of leaders have the resources, capabilities, and motivation to fulfill their roles. To use the student project team example, the best way to encourage the development of leadership networks in such a team would be to explicitly build the project instructions and performance appraisal criteria to require each team member to engage in some level of leadership activities.

6.3. Majority active-influential/minority passive-receptive

Teams comprised of subgroups of a majority of active-influential and a minority of passive-receptive members will likely be pushed towards a higher density leadership structure when all members hold the egalitarian network-ILNT. The passive-receptive subgroup may help facilitate the sharing of influence and responsibility when approached and directed by the egalitarian active-influential subgroup. Over time, a smooth transition between leading and following behaviors will likely emerge. However, if the passive-receptive subgroup does not hold an egalitarian network-ILNT, which is likely the case as discussed in earlier sections, they could feel uncomfortable with the overall leadership network structure being encouraged by the active-influential subgroup, and may withdraw or become ostracized. Withdrawal from team activities would be especially likely if the team is geographically distributed and the passive-receptive subgroup is physically separated from the others (Wildman et al., 2012). As an example of this team type, consider a student project team in which five out of seven members prefer to fully share leadership and are actively engaged in pushing forward the team's progress while the other two members sit at the side, mostly quiet, and prefer to wait to be given concrete tasks to perform. These individuals on the sideline might become frustrated or resistant when other team members ask them to take on leadership roles or to accept leadership from multiple others.

When all team members hold hierarchical network-ILNTs, similarly to the discussion in the section on homogenous active-influential teams, power struggles will occur, but only within the subgroup of active-influential team members. More specifically, individuals with hierarchical active-influential ILNTs will compete for status and leadership authority within the team, and individuals with hierarchical passive-receptive ILNTs will be seeking a single individual to follow. The passive-receptive individuals may become pawns in the political struggles as the active-influential members attempt to influence them to prioritize their own objectives.

Elements such as the match between the team's task and member's expertise or salient personality traits may help determine which individual emerges as the most influential leader over the passive-receptive subgroup and, possibly, the whole team (i.e., the outgoing male senior with previous work experience in an engineering student team made up of juniors may end up as the emerging leader). However, the performance and effectiveness of these teams may be hindered during early stages of formation

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

due to a lack of task clarity and confusion of responsibilities as a result of the power struggles. Additionally, any resulting relationship conflict that occurs between the active-influential members could negatively affect team cohesion, trust, and member interaction.

6.4. Active-influential/passive-receptive faultlines

Faultlines are imagined lines in a group that can potentially divide the group into salient subgroups (Crawford & LePine, 2013) based on the simultaneous alignment of one or more attributes or characteristics of the group members (Lau & Murnighan, 1998; Lau & Murnighan, 2005). In a team configuration that has a clear faultline between relatively equally sized active-influential and passive-receptive subgroups, we predict that the emerging leadership network structure will be centralized (Crawford & LePine, 2013; D'Innocenzo et al., 2014) in the active-influential subgroup, with rotating leadership behaviors and lateral communication and influence. However, the passive-receptive subgroup will behave more like traditional followers, expecting directions from the other group. For example, imagine a product development team in which half of the team members have over 10 years of experience with the company, but the other half are new hires that just joined the team. The more tenured subgroup is likely to take on leadership of the team, and ideally, will direct and support the newer team members until they are up to speed. The team may not have an overall highly congruent team mental model immediately, as we expect differences in the knowledge structures constructed by the two subgroups. However, as long as the team shares a well-developed team transactive memory system, and is clear on the roles of each member and subgroup, team functioning should not suffer.

In this team composition, members holding active-influential self-ILNTs are likely to emerge as leaders, and the rest of the team will likely behave like traditional followers. Therefore, a distributed-ILNT best fits this group type, and is expected to result in the most effective team interaction processes and outcomes. However, members who hold egalitarian-ILNTs may be disappointed or frustrated by the passive-receptive individuals as they do not meet their expectations in terms of contributing to the overall leadership network; and vice versa, members who hold passive-receptive self-ILNTs may find individuals with egalitarian network-ILNTs over-demanding and aggressive. If a majority of the active-influential individuals hold hierarchical network-ILNTs, similar issues on power struggles will arise in the active-influential subgroup as described in the homogenous active-influential composition. Consequently, tension within this subgroup may negatively affect the functioning of the team as a whole. Relating back to the previous product team example, if the tenured subgroup is engaged in power struggles and political behavior, this negative environment would likely hinder the development of shared mental models and cohesion across the team overall.

6.5. Passive-influential/active-receptive faultlines

In teams composed of equally sized passive-influential and active-receptive subgroups, leadership as a network may be difficult to establish in the early stages of team formation. For example, imagine a student team composed of several unmotivated Americans males (i.e., prototypically leader-like and outspoken, but unconcerned with the work at hand) and several motivated Japanese females (i.e., generally high power distance, but low tolerance for ambiguity). There will be a dilemma in that the Japanese team members holding may be seeking leadership and direction in order to reduce ambiguity, but the American team members may not be motivated to provide these directions. As a result, dissatisfaction and interpersonal conflicts may arise. Over time, to ensure adequate group functioning, individuals who hold the passive-influential self-ILNT may be more likely to take on leadership roles under pressure from the other subgroup. Active-receptive individuals, on the other hand, will likely fit in the traditional follower roles, readily accepting the influence from the leader(s) once they emerge. Thus, passive-influential individuals will tend to be more giving of leadership, whereas active-influential individuals will tend to be more receiving of leadership.

The structure of leadership that emerges in this team composition can be difficult to predict looking solely at individuals' self-ILNTs and it is important to examine their network-ILNTs as well. For instance, if a majority of the members hold an egalitarian network-ILNT, members who are partially passive or partially receptive could still take on leadership roles in certain situations under pressure from the team to meet task demands. If a majority of the members hold hierarchical or distributed network-ILNTs, the internal team dynamics will likely lead to one or more members emerging as the centralized leader(s) rather than the emergence of densely shared leadership. The other members can comfortably assume the follower role as they can now depend on the leader(s) for directions. As discussed in previous team compositions, complications occur when members hold mixed network-ILNTs. The inability to find the middle ground can lead to team process loss and eventually harm performance outcomes.

7. Team characteristics and ILNTs

Thus far, our discussion has focused on several examples of possible combinations of self- and network-ILNTs and the leadership network structures, team processes, and team outcomes, likely to arise within teams composed of various combinations of those ILNTs. Teams, however, do not operate in a vacuum, and the relationship between ILNT compositions and leadership network emergence is going to depend, at least in part, on the impact of team characteristics and other situational factors. Work teams differ on a wide variety of attributes that are relevant to the formation of leadership structures in groups (Wildman et al., 2012). These attributes in turn make certain forms of leadership structures more or less easily emergent. We base our list of team characteristics off of a review by Wildman et al. (2012) that integrated previous taxonomic classifications of both team task types and characteristics. The characteristics discussed here include team size, physical distribution, task interdependence, and communication structure.

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

Defined as the extent to which outcomes of team members are influenced by or dependent upon the actions of others (Wildman et al., 2012), task interdependence is likely to be a powerful influence in the formation of leadership structures and the relationship of ILNTs with that formation. The less interdependent teams are (e.g., pooled performance), the less people will need to depend on the leadership of others (and their own leadership) to maintain smooth collaboration and the less ILNTs are going to relate to the form leadership takes. For example, imagine a sales team in which all tasking and activities are completed independently, but the outcomes are based on the team's sales performance as a whole. Shared leadership, in this case, is neither necessary for likely to emerge because activities are generally independent. In teams with intensive interdependence, however, in which team members are closely coupled during taskwork (e.g., medical trauma teams, military combat teams), the more informal leadership structures are going to be driven by ILNTs because leadership is more critical to coordinating those interdependencies. Additionally, as mentioned earlier, dense leadership network structures are most beneficial in teams with higher interdependence (Nicolaides et al., 2014). Therefore, selecting for or developing active-influential self-ILNTs and egalitarian network-ILNTs within team members will be critical for enabling team effectiveness in highly interdependent settings.

Proposition 15. Highly interdependent teams will be maximally effective when all team members hold active-influential self-ILNTs and egalitarian network-ILNTs.

The larger the team, the more bandwidth it requires to manage for any one person. Team size is also likely to moderate the relationship between ILNTs and emergent leadership structures. The larger the team, the less likely the team will have high levels of trust between all team members, the less likely each team members is to feel like they have a say in what is happening, and the less likely it is that team members perceive the team as a safe place to take risks. This lack of trust is likely to reduce, or at least hinder, the emergence of egalitarian forms of leadership despite the presence of active-influential and egalitarian ILNTs. Similarly, when team members are more physically distributed, it becomes more difficult to build emotional attachments due to the lack of richness in electronic forms of communication. Distributed teams face many challenges, chief among them the lack of ease and richness of communication (Scott & Wildman, 2015). These factors are likely to reduce the emergence of egalitarian leadership structures due to these structural constraints, regardless of the team's held ILNTs, without additional external investment and scaffolding. However, research suggests that should egalitarian leadership structures emerge, it is incredibly helpful to provide the support these teams need to function effectively.

Proposition 16. In larger and/or more distributed teams, egalitarian leadership structures will be less likely to emerge due to reduced psychological safety and reduced ease of communication.

The structure through which teams communicate is intricately linked to the structure that leadership takes. Like leadership structures, communication structures can also be described in terms of networks: who is talking to whom and how does information flow through the collective. Leadership is exchanged through communication, so it follows that communication structures could facilitate or constrain varying types of leadership structures emerging naturally within the group. As an example, open communication structures which allow the free exchange of information across all team members are most likely to facilitate the emergence of a leadership structure that best represents the team's held ILNTs. Because these open communication networks are likely not mandated or officially enforced, they will change shape over time as the team's internal leadership structure takes hold. Other types of communication structures may facilitate the emergence of distributed leadership structures or even hierarchical structures (e.g., hub-and-wheel communication networks which place a central person in the middle of most communications within the team).

Proposition 17. Open communication structures are most likely to lead to the emergence of leadership structures driven by the team's ILNTs.

Proposition 18. Over the course of a team's lifespan, the team's communication structure may evolve to reflect the underlying structure of leadership within that team.

Proposition 19. Over the course of a team's lifespan, a constrained communication structure is likely to lead to a leadership structure that parallels the constrained communication structure.

Despite the call in exploring temporal dynamics in teams (Kozlowski & Bell, 2003), few theories of teamwork and leadership emergence explicitly consider how relationships and patterns of interaction change or solidify over time. In fact, it seems remiss to assume that changes won't occur over the course of an extended period, as the natural growth of network structures could be affected by changes in situational and task contingencies, disruptive events, or individual attributes (Humphrey & Aime, 2014). Therefore, we apply a microdynamics or temporal-based perspective to considering the implications of ILNTs.

Team development can be described by two common approaches (Humphrey & Aime, 2014; Mathieu et al., 2014). The life-cycle model approach views team progression through multiple distinct stages that could occur sequentially or nonlinearly. The equilibrium model approach states that team progresses constantly towards a level of stability in behaviors and relationships. Regardless of the differences in conceptualization of the temporal effects, both approaches support that teams change over time and the change can be affected by how long the team has been together and the composition or homogeneity of team members (Mathieu et al., 2014). Leadership plays a fundamental role in team development, and any framework on leadership as networks would not be complete without considering potential temporal effects.

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

It is challenging to predict the exact changes in ILNTs in different phases of team development without considering specific contexts (Arrow, Poole, Henry, Wheelan, & Moreland, 2004), thus we provide some general propositions to guide thinking in future studies. Experience and knowledge shape one's implicit theories, and it is likely that team members' self-ILNTs and network-ILNTs will change throughout a team's life span and have different implications on team processes and outcomes at different points in time. For instance, in the early stage of team formation, active-influential self-ILNTs would benefit team development as members proactively engage in communication and coordination efforts to initiate the task. When the team undergoes crisis or when the task becomes more challenging and ambiguous, a hierarchical network-ILNT may be more beneficial as the team needs clear direction and a shift in focus towards handling the crisis.

In studies that examine compositional influences, a distinction was made between surface-level diversity (e.g., demographic characteristics) and deep-level diversity (e.g., members attitudes and beliefs; Mathieu et al., 2014). Surface-level diversity influences team processes more in early stages of team formation and the effects tend to be short-lived, whereas deep-level diversity tends to exert more fundamental influences at a later phase (Harrison, Mohammed, McGrath, Florey, & Vanderstoep, 2003). Therefore, we suggest that it would take some time for members' ILNTs to manifest fully in team interactions, and the ILNTs will probably become more critical in shaping the leadership network at mid-to-late stages of team formation. In addition, higher homogeneity among members' ILNTs would facilitate the development of network leadership at an earlier stage in team formation, as variations in ILNT compositions require additional time to process and be communicated within the team.

The alignment between members' ILNTs and the leadership structure over time is also important. When the team's initial leadership structure is compatible with most team members' ILNTs, the leadership structure tends to become stable. However, when a team's ILNTs do not match the leadership structure enacted, such as when a new team is formed and the initial leadership structure is dictated by an external manager or other entity, that structure is likely to change over time. Under circumstances when such change is hindered or not allowed, the misalignment may result in the emergence of negative team processes or outcomes as conflict develops, and member disengagement or turnover could result.

Proposition 20. Team members' self-ILNTs and network-ILNTs will change over time in response to experiences with various team and leadership structures.

Proposition 21. The impact of ILNTs will become more apparent at later stages of a team's lifespan, as it takes some time for deep-level differences to manifest.

Proposition 22. When a team's pre-existing leadership structure is aligned with that team's ILNTs, the leadership network is likely to remain more stable over time compared to a team whose leadership structure is not aligned with the members' ILNTs.

8. Theoretical implications

The network perspective of leadership recognizes the role of the individual and their context as mutually influencing their standing within a group. This is the first step towards connecting implicit theories to this leadership network literature and extending them beyond dyadic leader-follower pairings. By elevating implicit theories of leadership and followership to consider a person's (a) role within a larger network and (b) their conceptualization of what that leadership network is or should be, researchers can better target and understand the impact of ILNTs on leadership network emergence in all its myriad forms.

We believe that the network perspective, and explicitly incorporating a multilevel perspective with ILTs and IFTs, better reflects the reality of emergent leadership within teams and organizations. Leadership as networks isn't a static construct, but something that is implicitly negotiated on a day-to-day basis. For example, a hierarchical leader, whether formal or informal, could lose authority after making a significant public mistake and the leadership structure of that group may shift to reflect that. Explicating ILNTs gives us another tool we can use to try to predict the emergent structure of leadership networks in teams. By explicitly discussing leadership theories in a multilevel manner, we add more depth of understanding towards the intricate dynamics of leadership emergence in groups and teams.

Shondrick et al. (2010) argue that researchers should explore the processes through which implicit theories of leadership are created, shaped, and otherwise changed over time. The theory described here adds an additional element to that line of questioning: to what extent are ILNTs shaped and changed over the course of a person's team-based work experiences? To what extent do beliefs about how leadership should be structured within a larger network impact a person's implicit leadership theories? Do individuals with egalitarian theories perceive others as more leader-like when those others behave in ways that are conducive to shared leadership (i.e., both providing and accepting leadership) and, somewhat counterintuitively to traditional ILTs, are individuals who are more assertive or dominant seen as less archetypal of leadership?

Self-ILNTs integrate implicit leadership and followership theories into a typology that describes a person's expectations regarding their role within the leadership network. We believe this typology can be used to describe individual's outward-focused schemas regarding how other members of a network should act just as well, but this paper did not explicitly incorporate that perspective. Future work should explicitly incorporate schemas regarding the proper behavior of other individuals, rather than just self, within the network and how those schemas impact the formation of network leadership structures. The interaction between self- and other-schemas within the ILNT framework are likely to be complex and will need more theoretical and empirical work to fully untangle. Future models based around the ILNT theory need to explicitly incorporate other-ILNTs in addition to self- and network-ILNTs to gain an even more realistic description and understanding of leadership processes and the cognitive structures

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

driving them. As a foundation for all of these efforts, future work must focus on developing and validating measures of self- and network-ILNTs and testing the utility and validity of this theory in explaining team and organizational behavior.

In general, future research examining the emergence of leadership in teams should consider ILNTs and examine the relative weight of their impact compared to other individual differences commonly used to predict leadership emergence. For instance, a research question worthy of exploration would be what type of interactions exist between individual differences and ILNTs (e.g., can a team member who is high in political skill encourage others to adopt an egalitarian ILNT or encourage others to see themselves as active-influential actors?). Additionally, it is important to understand how ILNTs and their patterning within the team impact particular action, transition, and interpersonal team processes (Marks et al., 2001). Similarly, research should empirically examine how ILNT compositions impact emergent states such as shared mental models or transactive memory systems.

The fit of this theoretical model with larger organizational systems, including multiteam systems, should also be examined. Multiteam systems (MTSs) are complex systems of teams (i.e., teams of teams) all working towards a shared goal (Zaccaro et al., 2012). Called a "component team", each team within an MTS strives to achieve the MTSs' shared goal but does so by achieving differing proximal goals that all feed into a final goal. The key difference between teams and MTSs is the level of complexity in the composition of the teams. It seems reasonable to assume that ILNTs of team members within each component team will lead to differing patterns of emergence within those individual teams. It is also reasonable to assume that these natural emergent leadership structures could have cross-level effects, impacting the shape and effectiveness of leadership within the larger network. However, the extent to which these cross-team effects occur and the specific factors and boundary conditions that may impact leadership networks at the MTS level remain unexamined. Future research should examine whether MTS leadership structures shift to reflect the ILNTs of the component teams, especially when those component teams all hold similar ILNTs. For instance, certain teams within the system (e.g., leadership teams) might levy a larger influence on shaping the leadership structure of the overall MTS to fit their own ILNTs.

Finally, Shondrick et al. (2010) suggested that by incorporating new information relating to the implicit theories held by people, these theories might change. Explicitly, they call for research regarding the trainability of implicit theories. We echo their call: research must begin to examine to what extent individuals' ILNTs can be changed and whether that change can be made permanent or whether it is fragile. For example, if a person changes their ILNTs after positive experiences working successfully in a highly dense leadership network structure, will those changes revert after one or two more negative team experiences? Further, by exploring how the patterns of these theories within the network likely impact the form leadership takes as well as the team and individual outcomes associated with those structures, we can begin to predict those outcomes and provide targeted best practices and insights for organizations and practitioners aiming to reduce ambiguity surrounding leadership network emergence.

9. Human resource management implications

There are several promising potential applications for practitioners to consider regarding how they might apply this theory to enact real changes for their organizations and clients. First, we hope that this theoretical framework can be used as an intuitive cognitive organizing structure for practitioners who might wish to develop or utilize interventions targeting implicit theories to enhance team effectiveness. Teams are complex systems, and many factors simultaneously contribute to the success or failure of a team. Organizations are adept at implementing interventions in areas of enhancing job clarity and meaningfulness, improving employee job-related knowledge and skills, and developing leadership capabilities to facilitate better team outcomes. By understanding and using the cognitive structures that play a major role in shaping leadership perceptions and understanding the way leadership structures emerge in teams, we can increase the success rate of these interventions. For instance, ILNTs can be considered for a variety of interventions and functions in HR. We know from the literature that dense leadership networks seem to be most valuable in teams undertaking complex knowledge work and those operating in low communication richness virtual environments. From a job analysis perspective, giving due consideration to these factors (e.g., work complexity, virtuality) allows us to better define the job and the type of person who is the best fit for it. If a job or job family are seen as being helped by a person who is able to participate fully in an egalitarian leadership structure, then we know it may be beneficial to select people into those roles based to some extent upon their ILNTs in addition to other individual differences that predict job success.

ILNTs should be very useful when composing teams, building succession plans, and other workforce planning functions. By understanding the ILNTs of various employees (e.g., potential team members, potentials in the leadership pipeline), organizations can begin to predict how those people may work together rather than being surprised when a group of individually successful employees struggles with dysfunction when working together. This framework can be used to develop tools that help organizations compose teams that can better handle their leadership and task demands. For instance, individuals with highly active-influential self-ILNTs and highly egalitarian network-ILNTs are likely the best choice for leaderless, multidisciplinary project teams that may benefit the most from fully shared leadership. In contrast, highly active-influential individuals with hierarchical network-ILNTs may be better suited for placing in C-level positions within top management teams that are more hierarchical by nature and require more unilateral power and decision-making. By composing teams in terms of ILNT congruence, we can decrease confusion and conflict regarding leadership and improve the workplace environment, which will likely improve a variety of employee outcomes.

With additional research investigating the stability of ILNTs and other ILTs/IFTs, we can also use the framework described here in training contexts. Depending on the trainability of specific ILNTs, organizations could build on people's ability to thrive and actively participate in leadership as networks. This will allow organizations to leverage the benefits of certain leadership structures, such as fully egalitarian leadership networks, to increase competitiveness in the dynamic global marketplace. Informal and experiential learning will also be keys to enforcing real, stable change in ILNTs. While classroom-based learning about what network

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

leadership structures are and building self-awareness of team members' implicit network leadership theories is a good foundation, organizations can design team assignments to deliberately reward the enactment of followership and leadership behaviors in all members. Scaffolding teams over time into an egalitarian structure can also allow people to gain positive experiences that will help reshape their ILNTs.

Potentially either traditional psychometric tests or implicit association tests could be used to examine the favorability of a person's implicit theories regarding network leadership structures. Knowledge of a person's ILNTs and preferences can help organizations avoid placing highly valuable talent in contexts where they will not thrive or help them to know when to provide additional support to those who are placed in incongruent contexts. Considering such information together with the other selection criteria for team membership will likely lead to higher likelihood of composing high-performing teams. Further, understanding and utilizing ILNTs may supplement an organization's assessment of an applicant's organizational fit, increasing the likelihood of identifying individuals who would embrace the organization's work style and structure.

10. Conclusion

It is time to rethink the concept of leaders and followers in teams, and shift from a static, dyadic perspective towards a more fluid and realistic reflection of modern leadership. By focusing on individuals' expectations regarding the structure of leadership within a network and their own role within that network, this proposed multilevel integration of implicit leadership and followership theories represents a first step towards a more predictive and relevant theoretical structure that will assist researchers and practitioners to understand leadership network emergence in teams.

Acknowledgement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

References

Abdalla, I. A., & Al-Hamoud, M. A. (2001). Exploring the implicit leadership theory in the Arabian Gulf States. *Applied Psychology. An International Review*, *50*, 506–531.
Abelson, R. P. (1981). Psychological status of the script concept. *American Psychologist*, *36*, 715–729.
Arrow, H., Poole, M. S., Henry, K. B., Wheelan, S., & Moreland, R. (2004). Time, change, and development the temporal perspective on groups. *Small Group Research*, *35*(1), 73–105.
Ashkenas, R. (1995). The boundaryless organization: Breaking the chains of organizational structure. *The Jossey-Bass management series*. San Francisco: Jossey-Bass, Inc. , Publishers (CA 94104).
Balkundi, P., & Kilduff, M. (2006). The ties that lead: A social network approach to leadership. *The Leadership Quarterly*, *17*(4), 419–439.
Barsalou, L. W. (1985). Ideals, central tendency, and frequency of instantiation as determinants of graded structure in categories. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *11*(4), 629–654.
Brodbeck, F. C., Frese, M., Akerblom, S., Audia, G., Bakacsi, G., Bendova, H., & Castel, P. (2000). Cultural variation of leadership prototypes across 22 European countries. *Journal of Occupational and Organizational Psychology*, *73*, 1–29.
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.
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*(3), 597–622.
Cohen, S. G., & Bailey, D. E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management*, *23*(3), 239–290.
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.
Crawford, E. R., & LePine, J. A. (2013). A configural theory of team processes: Accounting for the structure of taskwork and teamwork. *Academy of Management Review*, *38*(1), 32–48.
Cronshaw, S. F., & Lord, R. G. (1987). Effects of categorization, attribution, and encoding processes on leadership perceptions. *Journal of Applied Psychology*, *72*, 97–106.
Day, D. V., Fleenor, J. W., Atwater, L. E., Sturm, R. E., & McKee, R. A. (2014). Advances in leader and leadership development: A review of 25years of research and theory. *The Leadership Quarterly*, *25*(1), 63–82.
Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *The Leadership Quarterly*, *15*(6), 857–880.
Deal, J. J., & Stevenson, M. A. (1998). Perceptions of female and male managers in the 1990s: Plus ça change. *Sex Roles*, *38*, 287–300.
Den Hartog, D. N., House, R. J., Hanges, P. J., Ruiz-Quintanilla, A., & Dorfman, P. W. (1999). Culture specific and cross-culturally generalizable implicit leadership theories: Are attributes of charismatic/transformational leadership universally endorsed? *The Leadership Quarterly*, *10*, 219–256.
DeRue, D. S. (2011). Adaptive leadership theory: Leading and following as a complex adaptive process. *Research in Organizational Behavior*, *31*, 125–150.
DeRue, D. S., & Ashford, S. J. (2010). Who will lead and who will follow? A social process of leadership identity construction in organizations. *Academy of Management Review*, *35*(4), 627–647.
D'Innocenzo, L., Mathieu, J. E., & Kukenberger, M. R. (2014). A meta-analysis of different forms of shared leadership–team performance relations. *Journal of Management*, *3*, 0149–2063.
Eden, D. (1992). Leadership and expectations: Pygmalion effects and other self-fulfilling prophecies in organizations. *The Leadership Quarterly*, *3*, 271–305.
Edge, A. G., & Remus, W. (1984). The impact of hierarchical and egalitarian organization structure on group decision making and attitudes. *Developments in Business Simulation and Experiential Learning*, *11*, 35–39.
Engle, E. M., & Lord, R. G. (1997). Implicit theories, self-schemas, and leader–member exchange. *Academy of Management Journal*, *40*, 988–1010.
Ensari, N., & Murphy, S. E. (2003). Cross-cultural variations in leadership perceptions and attribution of charisma to the leader. *Organizational Behavior and Human Decision Processes*, *92*, 52–66.
Ernst, & Young (2013). The power of many: How companies use teams to drive superior corporate performance. Retrieved from: http://www.ey.com/Publication/vwLUAssets/EY-The-power-of-many/$FILE/EY-The-power-of-many.pdf
Epitropaki, O., & Martin, R. (2004). Implicit leadership theories in applied settings: Factor structure, generalizability, and stability over time. *Journal of Applied Psychology*, *89*(2), 293–310.
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*(4), 659–676.
Fairhurst, G. T., & Grant, D. (2010). The social construction of leadership: A sailing guide. *Management Communication Quarterly*, *24*(2), 171–210.

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

Fairhurst, G. T., & Uhl-Bien, M. (2012). Organizational discourse analysis (ODA): Examining leadership as a relational process. *The Leadership Quarterly*, *23*(6), 1043–1062.
Fausing, M. S., Jeppe Jeppesen, H., Jønsson, T. S., Lewandowski, J., & Bligh, M. C. (2013). Moderators of shared leadership: Work function and team autonomy. *Team Performance Management: An International Journal*, *19*(5/6), 244–262.
Fielding, K. S., & Hogg, M. A. (1997). Social identity, self-categorization, and leadership: A field study of small interactive groups. *Group Dynamics: Theory, Research, and Practice*, *1*(1), 39–51.
Forsyth, D. R., Heiney, M. M., & Wright, S. S. (1997). Biases in appraisals of women leaders. *Group Dynamics Theory, Research, and Practice*, *1*, 98–103.
Foti, R. J., Fraser, S. L., & Lord, R. G. (1982). Effects of leadership labels and prototypes on perceptions of political leaders. *Journal of Applied Psychology*, *67*, 326–333.
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*(6), 933–958.
Galton, F. (1869). *Hereditary genius.* (Macmillan and Company).
Gerstner, C. R., & Day, D. V. (1994). Cross-cultural comparisons of leadership prototypes. *The Leadership Quarterly*, *2*, 121–134.
Gioia, D. A., & Poole, P. P. (1984). Scripts in organizational behavior. *Academy of Management Review*, *9*(3), 449–459.
Goodwin, V. L., Wofford, J. C., & Boyd, N. G. (2000). A laboratory experiment testing the antecedents of leader cognitions. *Journal of Organizational Behavior*, *21*, 769–788.
Gronn, P. (2002). Distributed leadership as a unit of analysis. *The Leadership Quarterly*, *13*(4), 423–451.
Harrison, D. A., Mohammed, S., McGrath, J. E., Florey, A. T., & Vanderstoep, S. W. (2003). Time matters in team performance: Effects of member familiarity, entrainment, and task discontinuity on speed and quality. *Personnel Psychology*, *56*, 633–669.
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*(6), 935–942.
Hiller, N. J., Day, D. V., & Vance, R. J. (2006). Collective enactment of leadership roles and team effectiveness: A field study. *The Leadership Quarterly*, *17*(4), 387–397.
Hoch, J. (2014). Shared leadership, diversity, and information sharing in teams. *Journal of Managerial Psychology*, *29*(5), 541–564.
Hoch, J. E., & Kozlowski, S. W. J. (2014). Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of Applied Psychology*, *99*(3), 390–403.
Hollander, E. P., & Webb, W. B. (1955). Leadership, followership, and friendship: An analysis of peer nominations. *The Journal of Abnormal and Social Psychology*, *50*(2), 163–170.
Humphrey, S. E., & Aime, F. (2014). Team microdynamics: Toward an organizing approach to teamwork. *The Academy of Management Annals*, *8*(1), 443–503.
Johnson, S. K., Murphy, S. E., Zewdie, S., & Reichard, R. J. (2008). The strong, sensitive type: Effects of gender stereotypes and leadership prototypes on the evaluation of male and female leaders. *Organizational Behavior and Human Decision Processes*, *106*, 39–60.
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*(4), 765–780.
Judge, T. A., Piccolo, R. F., & Kosalka, T. (2009). The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *The Leadership Quarterly*, *20*(6), 855–875.
Junker, N. M., & Van Dick, R. (2014). Implicit theories in organizational settings: A systematic review and research agenda of implicit leadership and followership theories. *The Leadership Quarterly*, *25*(6), 1154–1173.
Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *The analysis of dyadic data.* New York: Guilford.
Konst, D., & Van Breukelen, W. (2005). Effects of hierarchical positions of target persons on social inference: Schema use and schema content in perceiving leaders and subordinates. In B. Schyns, & J. R. Meindl (Eds.), *Implicit leadership theories: Essays and explorations* (pp. 305–332). Greenwich, CT: Information Age Publishing.
Kozlowski, S. W. J., & Bell, B. S. (2003). Work groups and teams in organizations. In W. Borman, D. Ilgen, & R. Klimoski (Eds.), *Comprehensive handbook of psychology: Industrial and organizational psychology. Vol. 12.* (pp. 333–375). New York: John Wiley.
Kozlowski, S. W. J., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes. *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 3–90). San Francisco, CA: Jossey-Bass.
Lau, D. C., & Murnighan, J. K. (1998). Demographic diversity and faultlines: The compositional dynamics of organizational groups. *Academy of Management Review*, *23*, 325–340.
Lau, D. C., & Murnighan, J. K. (2005). Interactions within groups and subgroups: The effects of demographic faultlines. *Academy of Management Journal*, *48*, 645–659.
Ling, W., Chia, R., & Fang, L. (2000). Chinese implicit leadership theory. *Journal of Social Psychology*, *140*, 729–739.
Lord, R. G. (1985). An information processing approach to social perceptions, leadership and behavioral measurement in organizations. *Research in Organizational Behavior*, *7*, 87–128.
Lord, R. G., Brown, D. J., & Freiberg, S. J. (1999). Understanding the dynamics of leadership: The role of follower self-concepts in the leader/follower relationship. *Organizational Behavior and Human Decision Processes*, *78*(3), 167–203.
Lord, R. G., Foti, R. J., & DeVader, C. L. (1984). A test of leadership categorization theory: Internal structure, information processing, and leadership perceptions. *Organizational Behavior and Human Performance*, *34*, 343–378.
Lord, R. G., & Maher, K. J. (1991). Cognitive theory in industrial and organizational psychology. *Handbook of industrial and organizational psychology*, *2*, 1–62.
Lord, R. G., & Maher, K. J. (1993). *Leadership and information processing: Linking perceptions and performance.* New York: Routledge.
Lord, R. G., Foti, R. J., & Phillips, J. S. (1982). A theory of leadership categorization. In J. G. Hunt, U. Sekaran, & C. Schriesheim (Eds.), *Leadership: Beyond establishment views* (pp. 104–121). Carbondale, IL: Southern Illinois University Press.
Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature. *The Leadership Quarterly*, *7*(3), 385–425.
Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Review*, *26*(3), 356–376.
Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997–2007: A review of recent advancements and a glimpse into the future. *Journal of Management*, *34*(3), 410–476.
Mathieu, J. E., Tannenbaum, S. I., Donsbach, J. S., & Alliger, G. M. (2014). A review and integration of team composition models: Moving toward a dynamic and temporal framework. *Journal of Management*, *40*(1), 130–160.
McDowell, T., Agarwal, D., Miller, D., Okamoto, T., & Page, T. (2016, February 29). Organizational design, the rise of teams. Retrieved December 01, 2016, from https://dupress.deloitte.com/dup-us-en/focus/human-capital-trends/2016/organizational-models-network-of-teams.html
Mendez, M. J., & Busenbark, J. R. (2015). Shared leadership and gender: All members are equal… but some more than others. *Leadership and Organization Development Journal*, *36*(1), 17–34.
Newman, M. E. (2004). Analysis of weighted networks. *Physical Review E*, *70*(5), 056–131.
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*(5), 923–942.
Offermann, L. R., Kennedy, J. K., & Wirtz, P. W. (1994). Implicit leadership theories: Content, structure, and generalizability. *The Leadership Quarterly*, *5*(1), 43–58.
Paunova, M. (2015). The emergence of individual and collective leadership in task groups: A matter of achievement and ascription. *The Leadership Quarterly*, *26*(6), 935–957.
Pearce, C. L., Conger, J. A., & Locke, E. A. (2008a). Shared leadership theory. *The Leadership Quarterly*, *19*(5), 622–628.
Pearce, C. L., Manz, C. C., & Sims, H. P., Jr. (2008b). The roles of vertical and shared leadership in the enactment of executive corruption: Implications for research and practice. *The Leadership Quarterly*, *19*(3), 353–359.
Peterson, E., Mitchell, T. R., Thompson, L., & Burr, R. (2000). Collective efficacy and aspects of shared mental models as predictors of performance over time in work groups. *Group Processes & Intergroup Relations*, *3*(3), 296–316.
Porr, D., & Fields, D. (2006). Implicit leadership effects on multi-source ratings for management development. *Journal of Managerial Psychology*, *21*(7), 651–668.

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005

Ren, Y., & Argote, L. (2011). Transactive memory systems 1985–2010: An integrative framework of key dimensions, antecedents, and consequences. *The Academy of Management Annals*, *5*(1), 189–229.
Schank, R. C., & Abelson, R. P. (1977). *Scripts, plans, goals, and understanding.* Hillsdale, N.J: Erlbaum.
Schyns, B., & Sanders, K. (2007). In the eyes of the beholder: Personality and the perception of leadership 1. *Journal of Applied Social Psychology*, *37*(10), 2345–2363.
Scott, C. P., & Wildman, J. L. (2015). Culture, communication, and conflict: A review of the global virtual team literature. *In Leading Global Teams* (pp. 13–32). New York: Springer.
Shamir, B. (2007). From passive recipients to active co-producers: Followers' roles in the leadership process. In B. Shamir, R. Pillai, M. C. Bligh, & M. Uhl-Bien (Eds.), *Follower-centered perspectives on leadership: A tribute to the memory of James R. Meindl, ix–xxxix*. Information Age Publishing: Greenwich, CT.
Shondrick, S. J., Dinh, J. E., & Lord, R. G. (2010). Developments in implicit leadership theory and cognitive science: Applications to improving measurement and understanding alternatives to hierarchical leadership. *The Leadership Quarterly*, *21*(6), 959–978.
Small, E. E., & Rentsch, J. R. (2011). Shared leadership in teams. *Journal of Personnel Psychology*, *9*, 203–211.
Snijders, T. A. (2011). *Multilevel analysis.* Berlin Heidelberg: Springer, 879–882.
Spillane, J. P. (2012). *Distributed leadership. Vol. 4.*San Francisco, CA: John Wiley & Sons.
Staw, B. M., & Ross, J. (1980). Commitment in an experimenting society: A study of the attribution of leadership from administrative scenarios. *Journal of Applied Psychology*, *65*, 249–260.
Stewart, G. L., & Barrick, M. R. (2000). Team structure and performance: Assessing the mediating role of intrateam process and the moderating role of task type. *Academy of Management Journal*, *43*(2), 135–148.
Stock, R. M., & Özbek-Potthoff, G. (2014). Implicit leadership in an intercultural context: Theory extension and empirical investigation. *The International Journal of Human Resource Management*, *25*(12), 1651–1668.
Sy, T. (2010). What do you think of followers? Examining the content, structure, and consequences of implicit followership theories. *Organizational Behavior and Human Decision Processes*, *113*(2), 73–84.
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.
Uhl-Bien, M., Graen, G. B., & Scandura, T. (2000). Implications of leader–member exchange (LMX) for strategic human resource management systems: Relationships as social capital for competitive advantage. In G. Ferris (Ed.), *Research in personnel and human resource management, 18* (pp. 137–185). Greenwich, CT: JAI Press.
Uhl-Bien, M., Riggio, R. E., Lowe, K. B., & Carsten, M. K. (2014). Followership theory: A review and research agenda. *The Leadership Quarterly*, *25*(1), 83–104.
Uhl-Bien, M., & Pillai, R. (2007). The romance of leadership and the social construction of followership. *Follower-centered perspectives on leadership: A tribute to the memory of James R. Meindl* (pp. 187–209).
Van Knippenberg, D., Van Knippenberg, B., De Cremer, D., & Hogg, M. A. (2004). Leadership, self, and identity: A review and research agenda. *The Leadership Quarterly*, *15*(6), 825–856.
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.
Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications. Vol. 8.*New York: Cambridge university press.
Whiteley, P., Sy, T., & Johnson, S. K. (2012). Leaders conception of followers: Implications for naturally occurring Pygmalion effects. *The Leadership Quarterly*, *23*, 822–834.
Wildman, J. L., Thayer, A. L., Rosen, M. A., Salas, E., Mathieu, J. E., & Rayne, S. R. (2011). Task types and team-level attributes: Synthesis of team classification literature. *Human Resource Development Review*, *11*(1), 97–129.
Wildman, J. L., Thayer, A. L., Pavlas, D., Salas, E., Stewart, J. E., & Howse, W. R. (2012). Team knowledge research emerging trends and critical needs. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, *54*(1), 84–111.
Witt, L. A., Hilton, T. F., & Hochwarter, W. A. (2001). Addressing politics in matrix teams. *Group & Organization Management*, *26*(2), 230–247.
Yang, S. B., & Ok Choi, S. (2009). Employee empowerment and team performance: Autonomy, responsibility, information, and creativity. *Team Performance Management: An International Journal*, *15*(5/6), 289–301.
Yukl, G. A. (1981). Leadership in organizations. Pearson Education India. 2012 In S. J. Zaccaro, M. A. Marks, & L. DeChurch (Eds.), *Multiteam systems: An organization form for dynamic and complex environments*. Routledge.
Zaccaro, S. J., Marks, M. A., & DeChurch, L. (Eds.). (2012). *Multiteam systems: An organization form for dynamic and complex environments.* Routledge.
Zellmer-Bruhn, M., & Gibson, C. (2006). Multinational organization context: Implications for team learning and performance. *Academy of Management Journal*, *49*(3), 501–518.

Please cite this article as: Scott, C.P.R., et al., The impact of implicit collective leadership theories on the emergence and effectiveness of leadership networks in teams, *Human Resource Management Review* (2016), http://dx.doi.org/10.1016/j.hrmr.2017.03.005