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Initiating and Utilizing Shared Leadership in Teams: The Role of Leader Humility, Team Proactive Personality, and Team Performance Capability

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The present study was designed to produce novel theoretical insight regarding how leader humility and team member characteristics foster the conditions that promote shared leadership and when shared leadership relates to team effectiveness. Drawing on social information processing theory and adaptive leadership theory, we propose that leader humility facilitates shared leadership by promoting leadership-claiming and leadership-granting interactions among team members. We also apply dominance complementary theory to propose that team proactive personality strengthens the impact of leader humility on shared leadership. Finally, we predict that shared leadership will be most strongly related to team performance when team members have high levels of task-related competence. Using a sample composed of 62 Taiwanese professional work teams, we find support for our proposed hypothesized model. The theoretical and practical implications of these results for team leadership, humility, team composition, and shared leadership are discussed.

Keywords: shared leadership, leader humility, team characteristics, team leadership

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In recent years, researchers have emphasized the need to identify and understand a more collective form of team leadership, labeling this construct as *shared leadership* (e.g., Carson, Tesluk, & Marrone, 2007; Pearce & Conger, 2003). By definition, shared leadership is viewed as a group-level phenomenon generated from reciprocal reliance and shared influence among team members so as to achieve team goals (Carson et al., 2007). Although various recent studies have documented a fairly consistent positive relationship between shared leadership and team performance, they also have cautioned that our understanding of how shared leadership is formed (i.e., antecedents) and the boundary conditions for its effectiveness is still limited in at least two fundamental ways (Carson et al., 2007; D'Innocenzo, Mathieu, & Kukenberger, in press; Drescher et al., 2014; Hoch, 2013; Hoch & Kozlowski, 2014; Nicolaides et al., 2014; Wang, Waldman, & Zhang, 2014).[1]

To begin with, existing research has focused on the influence of the formal team leader, specifically showing that the support from the formal leader helps to facilitate shared leadership (e.g., Carson et al., 2007; Hoch, 2013). However, questions remain about whether supportive forms of leadership are effective in all situations to enhance shared leadership (D'Innocenzo et al., in press Drescher et al., 2014). In line with adaptive leadership theory (DeRue & Ashford, 2010), the construction of shared leadership is determined when team members both claim their own leadership roles and grant others leadership recognitions and thus "share" leadership identities with their peers (DeRue, 2011). Shared leadership, accordingly, is a unique phenomenon that emerges from both the formal leader's willingness to pass leadership authority to the team (Hoch, 2013) and the team members' willingness to accept the opportunity to simultaneously lead and follow their peers (DeRue, 2011). This perspective suggests that to arrive at a more comprehensive understanding of the antecedents of shared leadership, there is a strong need to investigate both (a) the types of formal leaders that will stimulate shared leadership and (b) the types of teams that may rise to the occasion and embrace shared leadership under these circumstances.

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[1] In the life cycle of a theory, once a construct's core theoretical proposition is well established (i.e., shared leadership being associated with enhanced team effectiveness), the next developmental step to is to theorize and test the antecedents and boundary conditions of the construct (Colquitt & Zapata-Phelan, 2007).

In addition to gaining a more comprehensive understanding about the antecedents of shared leadership, unanswered questions also remain regarding the boundary conditions for the effectiveness of shared leadership. While the positive association between shared leadership and team performance has been well-documented, there is still a large amount of unexplained variance in this relationship (e.g., $r = .15–37$; see recent meta-analyses of D'Innocenzo et al., in press; Nicolaides et al., 2014; Wang et al., 2014). More importantly, a fundamental assertion underlying shared leadership is that it enhances team effectiveness through utilizing intragroup knowledge and skill (Pearce & Conger, 2003). However, this boundary condition of team member competence is not well developed theoretically nor rigorously tested empirically (Wang et al., 2014; Yammarino et al., 2012). Limited knowledge of boundary conditions hinders researchers' understanding of the usefulness and applications of shared leadership in the workplace. Likewise, without a more complete understanding of the boundary conditions of shared leadership effectiveness, managers cannot optimally utilize shared leadership structures in the teams they lead.

The present study is designed to respond to these important theoretical gaps. We first investigate how team managers, or the formal leaders, can help encourage shared leadership among members. We utilize social information processing (SIP) theory (Salancik & Pfeffer, 1978) to hypothesize how team managers signal to members the need to engage in reciprocal leadership interactions. Within this SIP framework, we investigate leader humility—an interpersonal characteristic of the leader that entails showing self-awareness, being teachable, and valuing and highlighting the contributions of team members (Owens & Hekman, 2012)—as an important facilitator of shared leadership in teams. Although previous studies have suggested that supervisory support such as empowerment and transformational leadership (Hoch, 2013) may encourage team members to "step up" and take on leadership roles, we argue that leader humility can play a more critical role in shaping shared leadership because it facilitates and legitimizes *both* leadership-claiming and leadership-granting acts among team members. As an other-centered leader characteristic that draws attention to followers' expertise and role-models openness to learning from others, leader humility, we argue, can strengthen team members' confidence to take the lead and signal the importance of valuing others' contributions and influence. This should, in turn, encourage individuals to engage in mutual leading-following interactions, thereby contributing to the development of shared leadership (DeRue, 2011).

Even after identifying what formal leaders can do to encourage shared leadership, situational and contingency leadership perspectives (Fiedler, 1971; Vroom & Yetton, 1973), more generally, and dominance complementarity theory (Carson, 1969; Kiesler, 1983), more specifically, suggest that whether formal team leaders foster team-shared leadership may depend on the attributes of the team. For instance, more proactive individuals have been found to demonstrate greater personal initiative when working for introverted leaders because these leaders are more receptive to the ideas and suggestions coming from proactive employees (Grant, Gino, & Hofmann, 2011). This contingency notion, based on complementarity between the characteristics of the formal team managers and the proactive attributes of the team, has not yet been investigated in the context of shared leadership. Doing so could provide important insights by identifying the mechanisms and conditions through which formal team leaders facilitate the development of shared leadership. Given that leader humility is a nonhierarchical, power-equalizing interpersonal characteristic that focuses on giving followers more flexibility for active learning (Owens & Hekman, 2012), we expect that its impact on developing shared leadership in teams is strengthened if team members are proactive, as follower proactive personality might better complement nondominant leader characteristics (Grant et al., 2011), such as humility.

Finally, to understand the boundary condition of shared leadership effectiveness, we theorize and examine the moderating effect of team performance capability on the impact of shared leadership on team task performance. Hackman and Wageman (2005) have proposed that the amount of team competence (i.e., whether the team is staffed with knowledgeable and skilled individuals) is as important as team performance strategies (e.g., shared leadership) in predicting team effectiveness. Carson et al. (2007) also suggest that shared leadership should facilitate higher performance when a team has highly capable members because it can more effectively utilize a stronger pool of talent (Day, Gronn, & Salas, 2004). Thus, we propose that members' performance capability may serve as an important moderator of the impact of shared leadership; without proficient expertise, even high-functioning teams cannot achieve maximum effectiveness (Kozlowski, Gully, Salas, & Cannon-Bowers, 1996). Because shared leadership is characterized as frequent interpersonal interactions through which team members exert mutual influence and reliance (DeRue, 2011), a high level of team capability should amplify the effectiveness of this cohesive work system, thereby enhancing team performance.

Our study makes four important contributions to the literature on shared leadership. First, by exploring the role of leader humility, we help illuminate the coexistence of these two sources (formal and informal) of leadership in teams and investigate a characteristic of vertical leaders that is theorized to facilitate both leading and following interactions among members. Second, drawing on the leader-team complementarity perspective (Grant et al., 2011), we contribute more comprehensive understanding about how leader humility and team characteristics work together to foster shared leadership structures within teams. This contribution responds to calls to illuminate the role of followers and their characteristics in the leadership influence process (Hollander, 1992; Kellerman, 2008). Third, as the boundary conditions for shared leadership effectiveness are unclear (Wang et al., 2014), we include the effect of team performance capability in our model and examine its interaction with shared leadership. Finally, taken together our integrative model represents an important advancement in the team modeling literature (Ilgen, Hollenbeck, Johnson, & Jundt, 2005) as our model addresses team inputs, processes, and outputs, to provides a more comprehensive understanding about how leader humility, team characteristics, team competence, and team interactive structures work together to foster team effectiveness. Specifically, our overall model proposes that leader humility enhances team performance through the structure of team shared leadership, when teams are comprised of proactive and competent team members. Our proposed theoretical framework is summarized in Figure 1.

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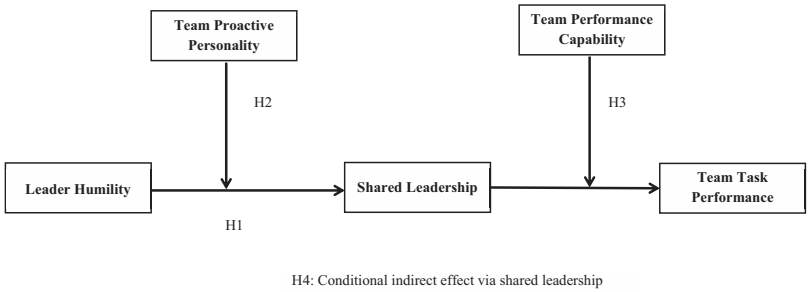

Figure 1. Theoretical Model.

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Theoretical Background and Hypotheses

Shared Leadership

Although the concept was originally proposed many decades ago (e.g., Gibb, 1954; Katz & Kahn, 1978; see a review of Carson et al., 2007), the definition of shared leadership in teams has not been well developed until recently. Pearce and Conger (2003) define shared leadership as "a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals" (p. 1). Moreover, Morgeson, DeRue, and Karam (2010) differentiate between hierarchical and shared leadership based on the locus (external/internal; leadership sources stem from outside or within the team) and formality (formal/informal; leaders have the authority granted by the organization or not) of leadership. Accordingly, shared leadership is considered to be an internal/informal form of leadership (as opposed to the external/formal team leadership) whereby multiple team members provide influence on the team and each other in ways that facilitate task completion (D'Innocenzo et al., in press).

DeRue and Ashford's (2010) adaptive leadership perspective specifically explains how shared leadership is formed: the construction of leadership is embedded in interpersonal interactions where individuals (not necessarily the formal leader) continuously claim leadership identities while their peers are willing to recognize and accept their leadership roles (i.e., granting leadership identities to these potential leaders). In applying adaptive leadership theory to the group level, DeRue (2011) argues that leadership configurations in teams are the result of a series of leading-following interactions among members. If only one team member consistently engages in claiming leadership roles and others recognize the claimed leadership identity, over time the locus of leadership remains with this single actor, and the configuration of leadership in the team will become centralized. In contrast, if multiple members spontaneously engage in these leading-following interactions and continuously negotiate and renegotiate their roles, over time the social construction of the leadership structure will evolve to the stage of shared leadership in which multiple individuals are concurrently recognized as providing leadership within the team. Thus, shared leadership is therefore embedded in interactions among team members; they coordinate and negotiate leadership responsibilities with one another through dyadic influence exchange relationships that then, through repeated patterns, result in a collective structure that forms a leadership network (Carson et al., 2007).

Compared with the traditional referent-shift compositional model (Chan, 1998), researchers have recommended adopting this network-based view to conceptualize the dynamic of shared leadership because it offers several theoretical and methodological advantages (e.g., Carson et al., 2007; Carter, DeChurch, Braun, & Contractor, 2015; D'Innocenzo et al., in press; Mathieu, Kukenberger, D'Innocenzo, & Reilly, 2015; Mehra, Smith, Dixon, & Robertson, 2006): First, a network-based approach assumes that shared leadership is constructed by a complex web of relationships and reflects the interactive nature of shared leadership, which corresponds to the notion of the adaptive leadership theory (DeRue, 2011). Second, the social network approach of shared leadership does not rely on demonstrating attitudinal or cognitive consensus of team members, making it distinct from other team constructs such as team autonomy or empowerment (Carson et al., 2007). Third, the traditional referent-shift approach simply adopts existing hierarchical leadership perspectives (e.g., shared transformational leadership; Gupta, Huang, & Yayla, 2011), which may not fit well with more contemporary forms of shared authority and flatter hierarchical structures that typify more modern teams (D'Innocenzo et al., in press). Finally, this network-based approach of shared leadership has been determined to have a stronger association with team performance than the aggregation-based, referent-shift perspective (D'Innocenzo et al., in press). Accordingly, we use this perspective to define shared leadership in terms of a cohesive network where all the team members engage in frequent leading-following interactions and, thus, share both leader and follower identities at the same time.

Building Shared Leadership in Teams

Given its consistent relationship to team effectiveness (Nicolaides et al., 2014; Wang et al., 2014), an important question with theoretical and practical implications is *how* to facilitate shared leadership structures in teams. Carson et al. (2007) are the first to explore the conditions that give rise to shared leadership; they identify vertical leadership and the internal team environment as critical, albeit rival, antecedents of shared leadership. Since then, studies have explored how vertical leadership and team characteristics influence shared leadership separately (Hoch, 2013). But our understanding is limited about how the core inputs of vertical leaders and team characteristics interact to shape the formation of

shared leadership (Hoch & Kozlowski, 2014). Thus, while scholars have proposed the importance of exploring the key antecedents, such as the influence of formal leaders and team composition (e.g., Carson et al., 2007; Hoch, 2013), an integrative theory is lacking about how these critical antecedents work together or build upon each other in forming team-shared leadership structures. Below, we briefly highlight the leader humility literature and develop theory about how leader humility and team proactive personality interact to foster shared leadership.

Leader humility. Over the past decades, academics have been developing theories about leader humility as an important foundation for organizational learning, quality customer service (Vera & Rodriguez-Lopez, 2004), socialized charismatic leadership (Nielsen, Marrone, & Slay, 2010), and participative leadership (Morris, Brotheridge, & Urbanski, 2005). The scholarly reemergence of interest in classic virtues such as humility partly reflects researchers' embrace of positive psychology and positive organizational scholarship (Cameron, Dutton, & Quinn, 2003), wherein humility has been labeled as an important organizational virtue (see Cameron, Bright, & Caza, 2004). Following Owens, Johnson, and Mitchell (2013), we conceptualize humility as an interpersonal characteristic comprising a willingness to see oneself accurately, acknowledgment of the strengths and contributions of others, and openness to new ideas and feedback.[2] In alignment with these dimensions, grounded theory development work suggests that leaders show humility by admitting mistakes and limitations, spotlighting followers' unique strengths and contributions while deflecting praise, and being teachable or constantly open to new ideas, advice, and feedback (Owens & Hekman, 2012). By displaying these behaviors, humble leaders model how to grow, legitimize follower development and experimentation, initiate leader-follower role reversals, and engage in bottom-up organizing (Owens & Hekman, 2012). Moreover, when consistently expressing these humble behaviors, team leaders will facilitate a similar view among followers about their leadership characteristics (Feinberg, Ostroff, & Burke, 2005), making leader humility a consensus perception or assessment among team members.

Owing to its relational orientation, leader humility is expected to produce higher-quality leader–follower relationships, resulting in followers' greater commitment to making contributions to the group (Owens et al., 2013). The influence of leader humility has been found to have a cascading effect within organizations, as executive humility has been shown to shape empowerment climates at lower organizational levels, which in turn influence member engagement, commitment, and performance (Ou et al., 2014). Researchers have also found that leader humility contributes to team effectiveness: For instance, scholars have found that humble leaders are able to encourage followers to build satisfying interpersonal connections, resulting in foster a variety of positive team outcomes, including team learning, cohesion, collective efficacy, and team performance (Owens & Hekman, in press; Owens et al., 2013; Owens & McCornack, 2010).

Leader humility and shared leadership. We propose that the modeling of leader humility creates salient social cues to team members that legitimize and reinforce the specific relational dynamics inherent in the formation of shared leadership. We argue that formal team leaders are critical in this process, mainly by relying on social information processing theory (SIP; Salancik & Pfeffer, 1978). SIP theory suggests that individuals' processing of social information influences how they make meaning of and come to understand their work environment in ways that shape their work-related attitudes and behaviors (Salancik & Pfeffer, 1978). Researchers have consistently demonstrated that due to their higher status and direct involvement and interactions with employees, formally appointed team leaders serve as a critical informational source. As such, the behavioral modeling of a team leader (e.g., displaying humility) in dyadic interactions accrues to shape followers' collective perceptions about their working environment and guides their social interactions because of these common leadership and socialization experiences (Klein & Kozlowski, 2000), which encourages certain behaviors in the group (e.g., Bunderson & Reagan, 2011; Liu, Hernandez, & Wang, 2014; Mayer, Aquino, Greenbaum, & Kuenzi, 2012; Varella, Javidan, & Waldman, 2012). Drawing on SIP theory, we predict that managers who consistently demonstrate humility are able to influence team members' engaging in shared leadership by facilitating both leadership-claiming and leadership-granting behaviors and by reinforcing bottom-up organizing and leader-follower role reversals.

Compared with leader empowerment and transformational leadership, which have been theorized to promote shared leadership by inspiring team members to elevate their commitment, give more effort, and "step up" to claim leadership influence (Hoch, 2013; Pearce & Sims, 2002), leader humility, we argue, contributes to the development of shared leadership by facilitating *both* leadership *claiming* and *granting* acts within teams. For example, the dimension of spotlighting others' unique strengths creates awareness of team member strengths or areas of potential team leadership and, in alignment with SIP theory, legitimizes this behavior to be expressed among team members. By continually drawing attention to the unique contributions of others, humble leaders make salient the idea that unique expertise and strengths are diffused across the team. In addition, humble leaders emphasize a variety of contributions, rather than focusing on one particular dimension (Owens & Hekman, 2012). These practices highlight different paths along which followers can compare themselves with others and subsequently understand how they can uniquely contribute to the team. Humble leaders also encourage followers to be more teachable and open-minded and stress the importance of listening before speaking (Owens & Hekman, 2012). Due to this modeling and encouragement, team members will be more receptive and open to learning from others on the team and more accepting of their leadership-claiming attempts. Humble leaders also reinforce accurate self-assessment of limitations, which helps members better understand when they should take charge as emergent leaders and when they should follow the lead of others. As humble leaders admit their own limits, they model to team members how to objectively self-evaluate their own expertise and limitations. A realistic understanding of personal competence should reinforce individuals' confidence in their ability to provide leadership and

[2] These behavioral dimensions of humility have been found to co-occur and foster each other (Owens & Hekman, 2012) and to empirically form the subdimensions of the higher-order latent construct of humility (Owens et al., 2013). This operationalization has also been shown to be empirically distinct from measures of the "Big 5"—modesty, narcissism, honesty/humility, learning goal orientation, and core self-evaluation (Owens et al., 2013)—and from transformational, authentic, servant, and charismatic leadership (Owens, Rowatt, & Wilkins, 2011).

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claim leadership roles and also increase the probability that their peers will accept their influence.

Moreover, we also propose that humble leader behaviors catalyze a leader–follower role-reversal process that fosters shared leadership. Specifically, as humble leaders direct personal power away from themselves and toward others by admitting mistakes, highlighting the strengths and contributions of team members (i.e., creating awareness of specific areas of leadership potential in team members), and seeking to be taught by team members (rather than doing all the teaching), humble leaders break down rigid hierarchical leader-follower structures and foster more fluid and dynamic forms of organizing (Owens & Hekman, 2012). Through interacting with their humble leader, team members gradually learn to play the roles of both follower and leader, which enables shared leadership to emerge within teams.

In sum, considering the impact of leader humility on promoting continual, dynamic leading-following interactions among team members, we expect the humility of the team leader to be beneficial in building shared leadership.

> *Hypothesis 1:* Humility of the formal team leader is positively related to the level of shared leadership in the team.

Moderating effect of team proactive personality. *Proactive personality* refers to a personal disposition that guides individuals to "identify opportunities and act on them, show initiative, and persevere until they bring about meaningful change" (Crant & Bateman, 2000, p. 65). Although proactivity is usually identified at the individual level, multiple studies have suggested that it can be viewed at the group level as well (Grant & Ashford, 2008; Grant et al., 2011; Kirkman & Rosen, 1999). Specifically, Williams, Parker, and Turner (2010) argue that the mean level of proactive personality in a team represents the collective tendency to initiate problem solving, self-management, and self-improvement activities, which consequently promote the overall proactivity of the team. This view corresponds to the additive model of construct composition (Chan, 1998), meaning that proactivity at the team level is a pure summation of individual personality regardless of the variance across people. Consistent with Williams et al. (2010) as well as other team personality research (e.g., Bradley, Klotz, Postlethwaite, & Brown, 2013), we adopt this view to conceptualize and capture team proactive personality.

We expect that the positive relationship between leader humility and shared leadership will be strengthened when teams are highly proactive. We base this assertion on dominance complementarity theory (Carson, 1969; Kiesler, 1983), which proposes that facilitative and productive interactions occur when assertive behaviors from a party who tends to be more dominant are matched by passive acts demonstrated by a relatively submissive other. The complementarity that is achieved by such a match of contrasting behaviors produces more coordinated interactions and less interpersonal frictions and enables individuals with contrasting interpersonal styles to behave in authentic and consistent ways (Kiesler, 1983). As humility is a less dominant leader characteristic (Owens & Hekman, 2012) that provides more flexibility and freedom for followers to invest their contributions in teams (Owens et al., 2013), it should be compatible with followers who are more self-initiating, expressive, and proactive. By highlighting others' contributions and showing that they genuinely value their influence, humble leaders model other-centered norms in the team and demonstrate a willingness to acknowledge and follow the leadership of others. This signals that demonstrating proactivity will not be seen as threatening the status of the leader, thereby reducing members' concerns about exerting influence and claiming leadership roles in the team, which eventually promotes shared leadership.

Because humble leaders are particularly receptive to input and direction-taking from team members (Owens & Hekman, 2012), teams composed of members with strong proactive personalities will be most likely to respond when members assume greater levels of responsibility and influence over leadership functions. As Grant et al. (2011) have stated, proactive employees tend to "have the potential to complement the quiet, more reserved behavior of leaders" (p. 529). From the perspective of adaptive leadership theory (DeRue & Ashford, 2010), this interpersonal compatibility between the humble leader and proactive team members is even more critical to the formation of shared leadership in teams: While proactive individuals tend to be more self-initiated to take the lead (i.e., leadership claiming; Chiu & Tesluk, 2016), the modeling of humility by the vertical leader may urge these proactive team members to respect others' contributions and be open to their feedback, thus becoming more willing to accept the lead of their peers (i.e., leadership granting). As a result, the level of shared leadership becomes elevated.

In contrast, leaders who are more dominant, aggressive, or "excessively extroverted" are "less likely to solicit input from subordinates and colleagues, potentially alienating organizational members who prefer that attention and credit be shared" (Judge, Piccolo, & Kosalka, 2009, p. 868). Such leaders are more likely to dismiss proactive propositions made by followers, which limits the willingness of team members to contribute to the team (Grant et al., 2011). Leaders who tend to be more self-centered view their more proactive team members as possible threats to their status and hierarchical authority (Grant, Parker, & Collins, 2009) and, as a result, exercise more self-assured influence to secure their status. More importantly, when a dominant formal leader signals that the hierarchical structure of leadership is preferred and that accepting the lead from others is not encouraged, the leadership-claiming acts displayed by proactive individuals become less appreciated or accepted by their teammates, which impedes the development of shared leadership.

> *Hypothesis 2:* Team proactive personality moderates the positive relationship between leader humility and team shared leadership, such that when the level of team proactive personality is high, the relationship is enhanced, whereas when the level of team proactive personality is low, the relationship is weakened.

Shared Leadership and Team Performance: The Moderating Effect of Team Performance Capability

Although investigating the antecedents of shared leadership is important to advance the current literature, it is equally essential to examine the boundary conditions of shared leadership in fostering group effectiveness. As noted by Day et al. (2004) shared leadership improves teams' social capital by enabling better utilization of the internal resources, knowledge, and expertise of diverse team members, which in turn promotes team task performance. It also fosters a

collective identity among team members and enhances the level of engagement with and commitment to the team, which advances team performance as well (Wang et al., 2014). Mathieu et al. (2015) also report that shared leadership can strengthen social inclusion and contribute to team cohesion, which can, in turn, facilitate team effectiveness.

However, the shared leadership–team effectiveness association might not always be straightforward. As Hackman and Wageman (2005) point out, a well-developed teamwork structure (e.g., shared leadership) does not always guarantee high collective performance unless the team has the requisite talent in its members. In fact, multiple studies have proposed the need to investigate the boundary conditions of shared leadership effectiveness, and team members' performance-related capability is one potential moderator that remains unexplored (Carson et al., 2007; D'Innocenzo et al., in press; Mumford, Friedrich, Vessey, & Ruark, 2012; Wang et al., 2014). We view performance capability as a form of team deep-level composition (Bell, 2007) and define it as an aggregation of individuals' abilities to successfully complete their tasks (Mathieu et al., 2015). This conceptualization of team performance capability corresponds to the additive compositional model (Chan, 1998). An assumption implicit in the early theorizing of shared leadership is that more participative leadership structures can enable teams to more fully utilize the available expertise of its members (Pearce & Conger, 2003). When the team comprises many competent individuals, this great talent pool should maximize the benefits of the well-built shared leadership structure within the team (Day et al., 2004).

In addition, through ongoing leading and following interactions among team members occurring through shared leadership in the team, team members have more opportunities to observe the behaviors, competencies, and contributions of their peers. Through these frequent leader–follower exchanges with each other, team members become more confident in the capabilities of their peers. This greater confidence in the capabilities of their peers means that team members are more likely to put forth extra effort and demonstrate initiative because they believe their efforts will be competently matched by their teammates (cf., Liden, Wayne, Jaworski, & Bennett, 2004), who in turn improve the overall team performance.

In short, when members have high levels of expertise and competence to offer the team, the cohesive network structure of shared leadership should effectively channel their influence where and when it is most needed, thereby strengthening the relationship between shared leadership and team performance. On the contrary, if a team has a low level of capability, due to a lack of experienced or skilled members, having a shared leadership structure may not help enhance team performance because team members can easily defer their responsibilities to others within this reciprocal reliance system but their peers may be unable to actually solve the problem or complete the task.

> *Hypothesis 3:* Team performance capability moderates the positive relationship between shared leadership and team performance, such that when the level of team performance capability is high the positive relationship is strengthened, whereas when the level of team performance capability is low, the relationship is weakened.

Initiating and Utilizing Shared Leadership in Teams: An Integrated Model

We argue that a humble team manager can improve the construction of shared leadership by modeling behaviors that promote team members to continuously engage in reciprocal leading–following interactions (Hypothesis 1). We also propose that the influence from the humble manager is more compatible with teams that have a high level of proactive personality, such that the positive association between leader humility and shared leadership could be strengthened if the team is composed of many proactive individuals (Hypothesis 2). Finally, we anticipate that although shared leadership has been reported to be positively associated with team performance (e.g., D'Innocenzo et al., in press; Wang et al., 2014), the strength of this association will depend on the level of competence among team members (Hypothesis 3). Taken together, we propose an integrated model that seeks to produce a more comprehensive understanding of how shared leadership develops and how its effectiveness in fostering higher performance is contingent on team competence. A humble formal leader is an important ingredient for promoting shared leadership, and an elevated level of shared leadership should benefit team performance. However, the elevated shared leadership may not successfully translate the impact of leader humility into task effectiveness if the team is not staffed with highly proactive as well as competent members. When the level of either team proactive personality or performance capability is low, the humility-shared leadership association or shared leadership-performance relationship could be neutralized, as we argued above, making the indirect effect via shared leadership minimal.

In sum, we anticipate that the indirect effect between leader humility and team performance via shared leadership is contingent on the level of team proactive personality and performance capability, as reflected in the following:

> *Hypothesis 4:* Team proactive personality and team performance capability simultaneously moderate the positive indirect effect of leader humility on team task performance via shared leadership, such that the indirect effect is strongest when both moderators are at a high level.

Method

Sample and Research Design

A survey-based design was used to study multiple professional work groups in different organizations located in Taiwan, including one large private university, one major semiconductor solution provider, and five public relations (PR) agencies. These chosen teams were entry-level work units, and the team size ranged from three to seven, with an average team size of 4.59. Participants from the university were in administrative units that mainly deal with university management and hosting public events for faculty, students, and the local community (e.g., conferences or job fairs). Respondents of the technology firm were from the research and development (R&D) teams engaging in different projects of product improvement. Finally, participants from the PR agencies were grouped into different consulting teams providing professional services for their clients. In short, these teams were selected based on several important criteria: First, they are professional work

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teams who must satisfy the various needs of their customers (either internal or external). Second, most of their task assignments are project-based with solid deadlines and clear expectations about the outputs. Third, they are self-managing teams with a certain degree of job interdependence, and the members need to coordinate their own performance strategies and working schedules. Finally, each team was supervised by a manager who is accountable for the team performance. These team managers were formal, external team leaders, meaning that they had authority to coach their team, yet they were not directly involved in the day-to-day task activities of the team (Morgeson et al. 2010).

We chose a Taiwanese sample due to the compatibility of Taiwanese culture with the notion of leader humility and shared leadership. Eastern cultures have a long history of emphasizing the importance of leader humility (Peterson & Seligman, 2004). Unlike those individuals from other pan-Chinese cultural regions (i.e., China, Hong Kong, or Singapore) who might prefer hierarchical leadership structures, Taiwanese, particularly within younger generations, tend to favor more democratic or participative decision making (Rigger, 2006), which is emphasized in leader humility and shared leadership. Accordingly, we believe that this social context is reasonable and appropriate for exploring leader humility and shared leadership.

We employed a time-lagged design in gathering our data wherein we administered surveys at two points. In the first survey (Time 1), team members were asked about the humility of their team supervisor and their self-evaluated proactive personality. Demographic data were also collected in this survey. About 5 months later (Time 2), team members filled out the second survey, which asked them to report on the intragroup leadership structure (shared leadership) and performance capability of their teammates. In addition, at Time 2, team managers also assessed the team's performance, which ratings reflected the team's effectiveness in completing their assigned projects. The Chinese version of the instruments was translated following the back-translation procedures described by Brislin (1980).

As a result of administering the two surveys, we collected questionnaires from 75 team supervisors (88.2% response rate) and 308 team members (90.0% response rate). Because network analysis requires at least 80% participation within each group (Sparrowe, Liden, Wayne, & Kraimer, 2001), nine teams with 18 total members were excluded due to the low within-team response rate (the response rates ranged from 33% to 67% in these excluded teams). We also deleted an additional four teams due to incomplete supervisor and team member responses. A series of *t* test comparisons showed that there were no significant differences between the deleted group and the remaining sample on the target variables ($p > .05$).

The final sample was composed of 62 teams, including 62 formal leaders and 272 team members. Among these participants, 60% of the subordinates and 52% of the supervisors were female. The average age was 33 for team members and 41 for team leaders. The mean number of respondents per team was 4.38, which yielded a 95% average participation rate (average team size was 4.56). The sample included 19 administrative, 25 PR, and 19 R&D teams. Analysis of variance (ANOVA) was conducted to determine whether responses on the main variables (e.g., shared leadership) differed among the team types (administrative, PR, and R&D) with which participants were affiliated. For all the targeted variables, no significant differences across the different types of teams were observed, indicating that the findings did not appear to be confounded by team type ($p > .05$).

Measures

Unless otherwise noted, all the measures described here were rated using 5-point scales (1 = *strongly disagree*; 5 = *strongly agree*).

Leader humility. A nine-item scale was used to capture leader humility (Owens et al., 2013), with team members evaluating their team leader's humility. Sample items included "My supervisor admits it when he or she does not know how to do something," "My supervisor acknowledges when others have more knowledge or skills than him or her," and "My supervisor is open to the ideas of others." The Cronbach's alpha value for the nine items was .92.

Shared leadership. As mentioned above, we conceptualize shared leadership following the social network approach. Consistent with Mathieu et al. (2015), we measure shared leadership by using the network density of the leadership network, with greater density indicating greater shared leadership.[3] Team members rated each of their individual peers regarding the extent to which they rely on these individuals for specific leadership support using a 5-point Likert scale (1 = *not at all*; 5 = *to a very great extent*). Five items were included, based on the scale developed by Carson (2006). The first four items represent different team leadership functions, including facilitating planning in the organization, aiding in problem solving, providing personal support and consideration, and fostering development and mentoring (from Hiller, Day, & Vance, 2006); the final item was an overall assessment of leadership used by Carson et al. (2007). The reliability alpha of the five-item scale was .90. We then aggregated the responses across the five leadership-related items and then generated an overall leadership network matrix (Mayo & Pastor, 2007).[4] Leadership density was computed by aggregating all of the actual responses of the team members and then dividing by the total possible responses (Carson et al., 2007; Mathieu et al., 2015). The values of

[3] An alternative indicator for leadership network is centralization, which reflects the configuration of a leadership structure (DeRue, Nahragang, & Ashford, 2015). We chose density over centralization for several reasons. First, we are interested in addressing the question of how team leader humility encourages followers to engage in leading-following interactions with their peers. Accordingly, capturing the magnitude of reciprocated leadership acts, which is the density of leadership network (DeRue, 2011), should better match our research question and the theoretical model. While high network centralization (e.g., equal to .80) suggests that only one or few members engage in leadership activities, low centralization (e.g., equal to 0) could mean that either leadership roles are fully shared (density = 1) or that no one in the team is leading or following (density = 0; D'Innocenzo et al., in press). Based on these concerns, we decided to use network density because it both conceptually and empirically most closely represents the shared leadership construct as used in this study.

[4] In order to comprehensively describe and capture the whole connection structures of individuals, it is not uncommon for social network researchers to combine different aspects of a certain type of relationship. For instance, Xiao and Tsui (2007) combine 10 different facets of working relationships (i.e., from whom you seek information about task advice, strategic information, political aid, or social support) to measure the structural holes in social networks. Small and Rentsch (2010) combine three different leadership networks (task-, people-, and change-orientated leadership) to capture shared leadership within groups.

shared leadership ranged from .20 (all responses of "1") to 1.00 (all responses of "5").

Team task performance. We captured team task performance by using a five-item measure developed by Keller (1994). Team managers rated the performance of their team based on technical or service quality, budget and cost performance, meeting an assigned schedule, value to the company, and overall team performance. The reliability α was .84.

Proactive personality. Team members' proactive personality was measured by using a 10-item scale from Seibert, Crant, and Kraimer (1999). Sample items included "I am constantly on the lookout for new ways to improve my life" and "Nothing is more exciting than seeing my ideas turn into reality." The Cronbach's alpha value was .86.

Team performance capability. Team members evaluated the performance capability of each of their teammates using the item "Please rate to what extent this person performs his/her job well" based on a 5-point scale (1 = *not at all*; 5 = *to a very great extent*). The number of team members in our sample varied from three to seven; thus, the number of raters for each individual ranged from two to six.

Control variables. We included several control variables in this study to address possible alternative explanations of shared leadership and team effectiveness. Team size was considered because internal resources and workload requirements can vary based on the number of team members (Kirkman & Rosen, 1999). We also controlled for team mean tenure and leader tenure, as they reflect the experience of members working together and how long leaders have supervised the teams, which could influence the impact of leader humility (Owens et al., 2013) and team effectiveness (Marrone, Tesluk, & Carson, 2007). Finally, previous studies have suggested that team empowerment practices could be an essential factor for promoting shared leadership (e.g., Carson et al., 2007; Pearce & Sims, 2002);[5] accordingly, we controlled for supervisor-rated team autonomy, as it has been proposed to be one major element of team empowerment (Kirkman & Rosen, 1999). We used the three-item scale of the Work Design Questionnaire (Morgeson & Humphrey, 2006), and asked managers to evaluate the decision-making autonomy of their supervised teams. The reliability alpha for this scale was .65.

Data Aggregation

We proposed a theoretical model at the team level, and most of our targeted variables were captured based on the consensus-based or additive approach (Chan, 1998), except for shared leadership (using network density) and team performance (using supervisor-rated values). To justify the aggregation of individual assessments, the value of within-group agreement index (r_{wg}; James, Demaree, & Wolf, 1993) and intraclass correlation coefficients (ICC[1] & ICC[2]; Bliese, 2000) were calculated to confirm the reliability and validity of the aggregated scores (Chan, 1998; Klein & Kozlowski, 2000). Particularly, to echo the recommendation of Smith-Crowe, Burke, Kouchaki, and Signal (2013) on the use of the null distribution when calculating r_{wg}, we reported the values based on both uniform and slightly skewness null distributions because it is also reasonable to expect that individuals might have positive leniency in their ratings when assessing supervisors and peers (Rego, Vitória, Magalhães, Ribeiro, & e Cunha, 2013).

Although there is no absolute standard value for these aggregation indices (Biemann, Cole, & Voelpel, 2012), previous studies have suggested that an r_{wg} value greater than .70 is sufficient to justify the aggregation (Bliese, 2000). For ICC[1] and ICC[2], the general recommend cutoffs are .12 (James, 1982; Schneider, White, & Paul, 1998) and .60 (Glick, 1985), respectively. However, because ICC[2] is highly influenced by the number of raters from each group, the small average team size was the likely explanation for this lower than ideal value (Gong, Law, Chang, & Xin, 2009). Multiple recent studies have suggested that ICC[2] values greater than .25 are still acceptable in cases where high r_{wg} and ICC[1] values as well as significant F test results are observed (e.g., Dietz, van Knippenberg, Hirst, & Restubog, 2015; Dong, Liao, Chuang, Zhou, & Campbell, 2015). For leader humility, the data showed a high interrater agreement (mean $r_{wg\_uniform} = .95$; mean $r_{wg\_slightly\ skewness} = .88$) and an adequate ratio of within/between group variance (ICC[1] = .26; ICC[2] = .58; $F = 2.39$, $p < .01$), suggesting that aggregation was justified.

As team proactive personality and performance capability were based on an additive model (Chan, 1998), the average scores were used to assess these two team composition variables. Based on Steiner's (1974) original typology of teamwork independencies, the composition of individual attributes should match the particular type of team tasks and interdependency. When successful completion of the team's major tasks requires input and application of each team member's knowledge, skills, and abilities, the use of the mean or the sum of individual characteristics (e.g., cognitive ability or personality) is the most appropriate approach (Bell, 2007; LePine, 2003; Tesluk, Zaccaro, Marks, & Mathieu, 1997). This additive approach of composition has been widely adopted by previous studies to capture team proactive personality (e.g., Williams et al. 2010) and performance capability (e.g., Mathieu et al., 2015).

Because of the additive nature of these constructs, the aggregation indices are less statistically meaningful (Bradley et al., 2013; Chan, 1998). However, confirming the values of ICC[2] is still useful from a construct validity perspective, as it reflects the extent to which these team composition variables are distinct across different groups. The ICC[2] for team proactive personality was .33 with a significant difference between group effect ($F = 1.51$, $p < .05$). For team performance capability, we first checked whether the peer-rated evaluations for individual capability could be combined into a single score for each team member, and the results obtained showed that the computation of this combined score was justified (mean $r_{wg\_uniform} = .86$; mean $r_{wg\_slightly\ skewness} = .78$; ICC[1] = .21; ICC[2] = .52; $F = 2.08$, $p < .01$). Then when we averaged the individual scores, the team means in performance capability showed an adequate reliability (ICC[2] = .76; $F = 4.1$, $p < .01$). Accordingly, we confirmed the aggregation for these two variables.

Assessing Common Method/Source Bias

Most of our targeted variables, with the exception of team performance, were captured based on team members' ratings, which raises the possibility that the observed relationships in our model could be inflated due to the common method/source bias (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). We adopted

[5] We appreciate this recommendation from an anonymous reviewer.

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several remedies to minimize the occurrence and detect this potential problem based on established recommendations (Podsakoff, MacKenzie, & Podsakoff, 2012). First, we gathered ratings on shared leadership at a different time (T2) from other variables, providing temporal separation to mitigate the potential of common source bias (Podsakoff et al., 2012). In addition, we operationalized shared leadership following a social network approach, so it should be methodologically separated from other aggregation-based variables (Carson et al., 2007). Finally, Siemsen, Roth, and Oliveira (2010) have pointed out that the common source problem could indeed deflate the interactive effects in regression models. Thus, the test results of our hypothesized moderating effects would be more conservative rather than inflated if the problem of common source bias exists.

We then conducted confirmatory factor analyses (CFA) to check whether the variables collected at Time 1 (i.e., leader humility and team proactive personality) captured distinct constructs versus common source effects (Rego et al., 2013). Due to the limitation of our sample size ($n = 62$), resulting from the focus on team level, we adopted the parceling method to simplify our model when performing the confirmatory factor analysis (Li, Zhao, Walter, Zhang, & Yu, 2015). We created three parcels for leader humility by combining the items assessing three different humble behaviors (i.e., comprising a willingness to see oneself accurately, acknowledgment of the strengths and contributions of others, and openness to new ideas and feedback; Owens et al., 2013). Because proactive personality is a unidimensional construct, we followed the single-factor method recommend by Landis, Beal, and Tesluk (2000) to create the parcels: We first ranked the 10 items based on their factor loadings (i.e., R1–R10). Then we paired off these items with highest and lowest loadings as the first parcel and continued this procedure for the remaining items until they were exhausted. As a result, we produced five parcels for proactive personality (i.e., [R1, R10], [R2, R9], [R3, R8], [R4, R7], and [R5, R6]). The hypothesized measurement model was a two-factor model with eight parcels (three for humility and five for proactive personality) and shows an excellent fit ($\chi^2 = 22.8$, $df = 19$, CFI = .98, TLI = .96, RMSEA = .07) compared with the single-factor model (i.e., all the parcels were loaded to a single factor; $\chi^2 = 84.80$, $df = 20$, CFI = .68, TLI = .53, RMSEA = .24). Thus, these results confirmed the discriminant validity between leader humility and proactive personality, alleviating the concern of common source effects.

Results

Table 1 summarizes the means, standard deviations, correlations, and reliabilities for all the targeted variables. As expected, most of the main variables were correlated at a significant level ($p < .05$), which provided the preliminary evidence to support our hypothesized propositions.

Leader Humility, Team Proactive Personality, and Shared Leadership

We proposed that leader humility is positively related to team shared leadership (H1) and that the humility—shared leadership association is strengthened when the level of team proactive personality is high (H2). To test Hypotheses 1 and 2, we mainly relied on a series of ordinary least squares (OLS) regressions and reported the results in Table 2. As shown in the table, the Model 1 included all the control variables, and the result showed that team autonomy was significantly related to the level of shared leadership ($B = .05$, $SE = .02$, $p < .05$), which confirms the proposition of previous studies (e.g., Carson et al., 2007). Then we entered leader humility into the model (Model 2) and found that it was significantly associated with shared leadership ($B = .04$, $SE = .02$, $p < .05$), supporting our Hypothesis 1.

To test this moderating effect of proactive personality, we continued our hierarchical regression procedure. We found a significant interaction effect between leader humility and team proactive personality relative to shared leadership ($B = .27$, $SE = .12$, $p < .05$; Model 4). We further followed Aiken and West's (1991) methods for plotting interactions to graph the significant associations. As shown in Figure 2, the interaction effect on shared leadership was stronger in highly proactive teams (+1 *SD*; simple slope = .24, $t = 3.10$, $p < .05$) compared with less proactive teams (−1 *SD*; simple slope = −.01, $t = -.28$, *ns*). Thus, Hypothesis 2 is supported.

Shared Leadership–Team Performance Capability Interactive Effects on Team Performance

We hypothesized that the relationship between shared leadership and team task performance could be reinforced when team performance capability is high (H3). Table 3 summarizes the results of the hierarchical regression tests. The result showed that

Table 1
Descriptive Statistics

Variables	Mean	*SD*	1	2	3	4	5	6	7	8	9
1. Team size	4.56	1.60	—								
2. Team mean tenure	4.40	4.93	.21	—							
3. Leader tenure	9.43	8.44	.15	.60**	—						
4. Team autonomy	4.18	.44	−.26*	.03	.20	(.65)					
5. Leader humility	3.90	.48	.06	.23+	.15	.23+	(.92)				
6. Team proactive personality	3.71	.23	.07	.21+	.27*	.27*	.08	(.86)			
7. Shared leadership	.74	.08	−.06	.18	.08	.32*	.33**	.27*	—		
8. Team performance capability	4.04	.49	.04	.12	.12	.20	.27*	.32*	.54**	—	
9. Team task performance	4.03	.48	−.08	.28*	.35*	.11	.38**	.08	.27*	.27*	(.84)

Note. Two-tailed test; $N = 62$; scale reliability values are in the parentheses along the diagonal.
+ $p < .10$. * $p < .05$. ** $p < .01$.

Table 2
Regression Results for the Moderating Effect on Shared Leadership

Variables	Shared leadership							
	Model 1		Model 2		Model 3		Model 4	
	B	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Control variables								
Team size	−.01	.01	−.01	.01	−.01	.01	−.01	.01
Team tenure	.00	.00	.00	.00	.00	.00	.00	.00
Leader tenure	.00	.00	.00	.00	.00	.00	.00	.00
Team autonomy	.05*	.02	.04+	.02	.03	.02	.04+	.02
Main predictors								
Leader humility			.04*	.02	.04*	.02	.05*	.02
Team proactive personality					.07	.04	.05	.04
Interaction								
Leader Humility × Team Proactive Personality							.27*	.12
F	1.86		2.38*		2.48*		3.04**	
R^2	.12		.18		.21		.28	
ΔR^2			.06*		.03		.07*	

Note. Two-tailed test; unstandardized regression coefficients are reported.
+ $p < .10$. * $p < .05$. ** $p < .01$.

shared leadership was indeed positively related to team performance ($B = 1.57$, $SE = .77$, $p < .05$; see Model 2), which is consistent with the current findings about shared leadership (e.g., Wang et al., 2014). After including the interaction term, as we expected, the moderating effect was significant in relation to task performance ($B = 2.80$, $SE = 1.13$, $p < .05$; see Model 4). We plotted the interactive effect on team task performance, as shown in Figure 3, using the procedures of Aiken and West (1991). For those teams with higher performance capability, the association between shared leadership and team performance was significantly positive (+1 *SD*; simple slope = 2.42, $t = 2.38$, $p < .05$); however, for those teams with lower capability, the shared leadership-performance association was not significant (−1 *SD*; simple slope = −.35, $t = -.34$, *ns*). Thus, the analyses suggested that the positive effect of shared leadership on team performance is significantly stronger when teams have highly competent team members, in support of Hypothesis 3.

Test of the Conditional Indirect Effect

Finally, we proposed that the indirect effect between leader humility and team performance via shared leadership is strengthened when both team proactive personality and performance capability are high (H4). To test this hypothesis, we adopted a bootstrapping analysis ($n = 20{,}000$; Preacher, Rucker, & Hayes, 2007) by using the PROCESS syntax in SPSS provided by Hayes (2013) and summarized the results in Table 4. We included both of the moderators at the same time (PROCESS Model 21; Hayes, 2013) and found that the indirect effect of leader humility on team performance was significantly positive only when both team proactive personality and performance capability were at a high level (+1 *SD*; bootstrapped indirect effect = .21, $p < .05$, 95% CI = [.01, .53]). When either of the moderators was low, the indirect effect became insignificant ($p > .05$; see Table 4). This result is consistent with our prediction about the importance of the proposed moderators, such that the positive effect of leader humility on team performance via shared leadership is observed only at high levels of the two compositional factors, in support of the Hypothesis 4.

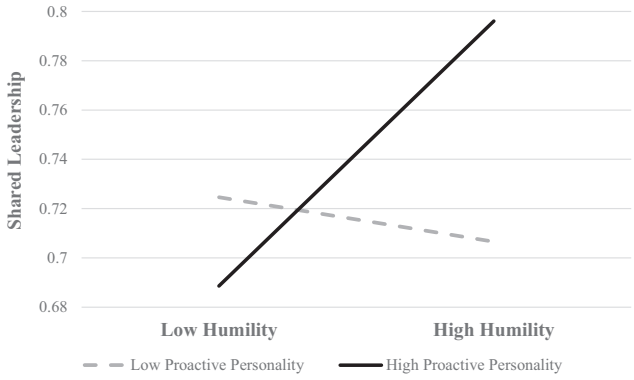

Figure 2. Interactive Effect of Leader Humility × Team Proactive Personality on Shared Leadership.

Discussion

Our overarching purpose in this research is to theorize and test a model to provide novel insight about the antecedents and boundary conditions of shared leadership in teams. Our findings suggest that leader humility facilitates the development of shared leadership in teams by encouraging leading-following interactions among team members. Moreover, we demonstrate that team proactive personality significantly moderates the effect of leader humility on shared leadership; the impact of leader humility is strengthened when team members are highly proactive. We also found that the interactive effect of shared leadership and team performance capability on team performance is strengthened when teams are composed of highly capable members. Finally, our analysis results suggest that shared leadership bridges the connection between leader humility and team performance when the levels of team proactive personality and performance capability are both high.

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Table 3
Regression Results for the Moderation Effect on Team Performance

	Team performance							
	Model 1		Model 2		Model 3		Model 4	
Variables	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Control variables								
Team size	−.04	.04	−.04	.04	−.04	.04	−.04	.04
Team tenure	−.01	.03	−.01	.03	−.01	.03	−.03	.03
Leader tenure	.02*	.01	.02*	.01	.02*	.01	.02*	.01
Team autonomy	−.01	.14	−.09	.15	−.10	.15	−.14	.14
Main predictors								
Shared leadership			1.57*	.77	1.04	.89	1.04	.85
Team performance capability					.16	.14	.30*	.14
Interaction								
Shared Leadership × Team Performance Capability							2.80*	1.13
F	2.23+		2.78*		2.56*		3.27**	
R^2	.14		.20		.22		.30	
ΔR^2			.06*		.02		.08*	

Note. Two-tailed test; unstandardized regression coefficients are reported.
+ $p < .10$. * $p < .05$. ** $p < .01$.

Theoretical Contributions

First, by identifying how external team leaders contribute to shared leadership and the mechanisms by which that process occurs, our study enhances the development of an integrative model of team leadership (Morgeson et al., 2010), which has as its basis the notion that leadership in teams does not exclusively emanate from the formal/external leader. Day et al. (2004) have suggested that diverse sources of leadership are necessary to satisfy the critical needs of a team and provide for greater leadership capacity. Although the concept of multiple leadership foci existing in teams has been acknowledged by organizational scholars (e.g., DeRue & Ashford, 2010), the leadership literature has tended to concentrate on the role of formal team leadership and seldom discusses its integration with other forms of team leadership. As Morgeson et al. (2010) mention "Although there are undoubtedly good reasons to focus on a single source, one of the unfortunate side effects of this approach is that the total leadership capacity of a team is underestimated" (p. 25). Accordingly, because shared leadership originates from informal/internal team leadership sources (Rogiest & Segers, 2011), its association with other formal/external leadership characteristics should improve our knowledge of team leadership capacity (Locke, 2003). By incorporating the concepts of leader humility and shared leadership, our study provides a comprehensive investigation regarding how formal team managers promote the growth of informal leadership among team members.

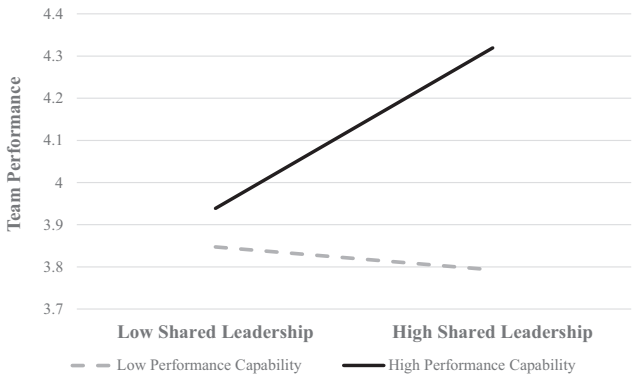

Figure 3. Interactive Effect of Shared Leadership × Team Performance Capability on Team Task Performance.

Second, our study identifies how team members' proactive personality, as an important team compositional factor, strengthens the relationship through which the humility of formal team leaders produces shared leadership. Specifically, we found that leader humility was most strongly related to shared leadership when teams had members with high levels of proactive personality. This finding is consistent with Owens and Hekman's (2012) qualitative observation that follower engagement in the leader–follower relationship is essential to ensure the effectiveness of leader humility. As leaders with the characteristic of humility are often seen as power-distance-reducing and nondominant leaders (Owens & Hekman, 2012), proactive followers are more likely to thrive under a humble leader because this combination is more likely to generate a complementary fit between leaders and followers. As the first study to examine the interactive impact of vertical team leader characteristics and team composition, our research findings advance theoretical understanding of shared leadership, suggesting that it is catalyzed through a dynamic and complementary combination of leader and follower characteristics.

Third, we find that shared leadership has a significantly stronger relationship with team performance in groups with more capable members. As Carson et al. (2007) have speculated "Shared leadership is likely to be more effective when team members have a high level of task competence" (p. 1230). In our model, we develop a theoretical rationale for this relationship and find empirical support for our prediction, such that the relational structure of shared leadership provides more benefits to teams when members are equipped with strong task-related skills or abilities to perform their jobs well. This finding implies that the structure of shared leadership may not always facilitate team effectiveness,

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Table 4
Conditional Indirect Effects Between Leader Humility and Team Task Performance Via Shared Leadership

Tests for the conditional indirect effect with two moderators				
Moderator 1	Moderator 2	Indirect Effect	95%CI Lower Bound	95%CI Upper Bound
High TPP (+1 *SD*)	High TPC (+1 *SD*)	.21*	.01	.53
	Low TPC (−1 *SD*)	−.06	−.26	.12
Low TPP (−1 *SD*)	High TPC (+1 *SD*)	−.02	−.17	.12
	Low TPC (−1 *SD*)	.004	−.05	.10

Note. CI = confidence interval; bootstrapping repetition n = 20,000; TPP = team proactive personality; TPC = team performance capability.
* $p < .05$.

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especially for teams with a low to average level of individual competence (i.e., novice teams). As testing boundary conditions is critical for developing sophisticated theories (Whetten, 1989), reporting this contextual moderator of the effectiveness of shared leadership provides a meaningful contribution to the shared leadership literature (see Colquitt & Zapata-Phelan, 2007).

Finally, our examination of the integrated model contributes insight into the effects of leader humility on team functioning and effectiveness. Grounded theoretical work (Owens & Hekman, 2012) has highlighted the importance of humility in predicting leader effectiveness. In the last decade, numerous leadership scholars and practitioners have suggested that humility can enhance leadership influence (e.g., Collins, 2005; Greenleaf & Spears, 2002; Kim, 2002; Morris et al., 2005; Nielsen et al., 2010; Ou et al., 2014; Owens, 2009; Owens et al., 2013; Owens, Wallace, & Waldman, 2015). One important implication of humility is its potential to foster effective team functioning (Owens & McCornack, 2010). Nevertheless, our research findings suggest that solely expressing humility is not enough for team managers to enhance shared leadership and team performance, but rather it is also contingent on team characteristics, such as the level of proactive personality and performance capability. These findings not only confirm the effectiveness of leader humility in teams but also highlight its boundary conditions for facilitating team effectiveness.

Practical Implications

Notably, our findings show that the relational structure of shared leadership is beneficial in improving team performance, which is also consistent with the conclusion of previous studies (e.g., D'Innocenzo et al., in press; Wang et al., 2014). In so doing, our findings have important implications for team managers and for organizations that wish to utilize shared leadership. Specifically, to help team members build mutual reliance, formal team leaders can demonstrate humble behaviors by publicly praising followers and showing a high willingness to learn from others. These leader behaviors signal that providing and receiving feedback from peers and spotlighting the unique strengths and expertise within a team are important. As a result, the team members are more confident to take the lead if their team needs them to and become more willing to appreciate the expertise and follow the lead of their peers.

From a human resource management standpoint, our research provides suggestions for staffing and training for building effective teams. We find that leader humility is conducive to developing shared leadership, and that this effect is strengthened when team members are proactive. We suggest that when leaders seek to build shared leadership in teams, they also need the assistance from the human resource functions to assess the level of proactivity that exists within the team or to select for proactivity when compiling a team's membership. Moreover, team members' performance capability or task competence could alter the effectiveness of shared leadership. We recommend that organizations conduct proper training programs for employees to enhance their general job competence before and in conjunction with efforts to develop shared leadership within their teams. Formal team leaders also should consider the task competence of their team before engaging in efforts to create high levels of shared leadership. Otherwise, team performance may not be effectively elevated by enabling greater shared leadership.

Limitations and Future Research

Several research limitations in the present study should be highlighted. First, this study considers only the interactions between external/formal leaders (team managers) and team members. However, Morgeson et al. (2010) have suggested that external/informal leaders—those who are not involved in the day-to-day team activities and have no responsibilities for team performance—also notably shape the development of leadership in teams. Our research does not account for the impact of external/informal leaders. External/informal leaders such as team mentors, champions, and executive coordinators (Zaccaro, Heinen, & Shuffler, 2009) can influence multiple key team functions, such as team composition, shared missions, or performance assessments, which in turn affect the development of team leadership (Morgeson et al., 2010). We suggest that future research explore the role of external/informal leaders in predicting shared leadership—for instance, the expectations from executive coordinators may determine how the team members shape their collective objectives, which is an important antecedent of shared leadership (Carson et al., 2007). The inclusion of external/informal leadership should give us a more comprehensive understanding of the antecedents of shared leadership.

Second, although in the present study we focus on the association between leader humility and shared leadership, investigation of the relationship between leader humility and other leadership theories could prove fruitful for future leadership research. For instance, in light of the principle of equifinality (Morgeson et al., 2010), shared leadership may be produced through different ante-

cedents than the ones we have theorized and tested. For example, empowerment and participative practices may also facilitate shared leadership (Kirkman & Rosen, 1999). However, as we argue above, leader humility may be more compatible with shared leadership because it helps facilitate *both* leading and following interactions, whereas empowerment and participative practices focus more on giving team members the opportunity to step up and take the lead. Nevertheless, we still urge future studies to consider the effect of empowerment and participative leadership in conjunction with the impact of leader humility. As the construct of leader humility continues to be theoretically developed, researchers should explore how humility interacts with other leadership approaches to gain further insights into the influence mechanisms, benefits, and boundary conditions of leader humility.

Third, we assessed shared leadership using network density, which is consistent with interest in studying the overall leadership capacity in teams (e.g., Carson et al., 2007; Day et al., 2004; Mathieu et al., 2015) as enacted through team members' influence-claiming and influence-granting behaviors (DeRue, 2011). However, the degree of leadership centralization—a network index that captures the distribution of leading-following interactions (DeRue et al., 2015)—could be another important factor that influences the effectiveness of shared leadership (D'Innocenzo et al., in press). Previous studies have suggested that a low network centralization could strengthen the positive density-performance relationship (e.g., Zhang & Peterson, 2011; Zohar & Tenne-Gazit, 2008). To investigate this possibility, we conducted a post hoc analysis to examine the interactive effect of leadership density and centralization on team performance, but no significant interaction was found ($p > .05$). Nevertheless, we suggest that future studies, particularly for teams of suitable sizes that offer greater opportunity for alternative configurations of shared leadership to be observed, might integrate centralization with density to extend conceptualization and measurement of shared leadership (see D'Innocenzo et al., in press).

Fourth, another limitation is that the scale reliability of our three-item team autonomy measure, one of the control variables, is relatively lower (alpha value of .65) than the conventional cut-off value of .70. Although this .70 traditional cut-off has been questioned (Lance, Butts, & Michels, 2006), especially when using scales with a small number of items (Hair, Black, Babin, Anderson, & Tatham, 2006), we encourage future research to replicate the relationships in our model while controlling for team autonomy. Alternatively, we encourage future research to examine how autonomy or empowerment might moderate the effect of leader humility on shared leadership formation

Fifth, we believe future research could explore a multilevel model to further understand how formal leaders convince and encourage individual members to engage more in leading and following activities. Exploring how vertical leadership interacts with individual member characteristics on the dyadic level to enable team-level leadership structures would lend valuable theoretical insights into how shared leadership emerges from dyadic vertical leader and member interactions. It may be worthwhile to explore individual differences, such as motivation to lead or implicit leadership theories, on followers' receptiveness to vertical leadership influence that is theorized to encourage their leading-following interactions with others.

Finally, the data used were collected in Taiwan, a cultural region characterized by high collectivism and power distance (Hofstede, Hofstede, & Minkov, 2010). Although younger Taiwanese generations may prefer more power-equalizing work settings, traditional values of respecting authority and high power distance might inhibit their willingness to serve as emergent peer leaders due to lack of legitimacy. Further, although humility is a more widely accepted and esteemed attribute in Eastern compared with Western cultures (for a review, see Morris et al., 2005), which could potentially amplify the influence of leader humility, team members with strong power distance values may be less responsive to a power-reducing approach like leader humility. Due to the potentially contravening effects of collectivism and power distance on the relationship between leader humility and shared leadership, a cross-cultural comparison is needed to better understand the humility–shared leadership association, particularly in countries characterized by low power distance and collectivism (e.g., the United States; Hofstede et al., 2010).

Conclusion

The present study was designed to produce novel theoretical insight regarding how vertical team leader characteristics and team member characteristics foster the conditions that promote shared leadership and when shared leadership relates to team effectiveness. By displaying humble behaviors, team leaders can facilitate both claiming and granting behaviors among team members leading to the development of shared leadership. Our research highlights the importance of team member proactivity in fostering shared leadership in teams and of team member capability as an important boundary condition for the effectiveness of shared leadership. We hope the theoretical insights gained through this effort will spur further research aimed at understanding team leadership effectiveness.

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