
Nawaf M. Alabduljader

Kuwait University

Bret Crane

Utah State University

N. Andrew Cohen

University of Denver

Team Experience and Leadership Structure Preference

Abstract

The aim of this study is to explore how individuals' preferences for a leadership structure (shared versus hierarchical) are developed and the influence of team experience on their leadership preferences.

The study uses longitudinal data and relies on surveys and questionnaires distributed to students throughout their course to collect data on individual leadership structure preferences, personality, and team trust and leadership structure.

The sample includes 621 members in 107 student project teams. Our analysis is based on responses from 459 members from 105 teams. In this sample, 60% of participants are white/Caucasian, 21% are Asian, 57 % are male, and average age was 18.

We find that individuals' preferences for a leadership structure (shared versus hierarchical) are both fixed and malleable. The results of the study suggest that team trust has a positive effect on individual's preference for shared leadership structure. In addition, we find that individuals in teams with high shared leadership structures and low team trust show lower preference for shared leadership structure, whereas individuals with high shared leadership structure and high team trust develop even stronger preferences for shared leadership structures.

This study is the first of its kind to examine how individuals' experiences in teams influence their preferences for a specific leadership structure. Individuals may have predetermined preferences for hierarchical or shared leadership structures, but such preferences change based on individuals' experiences in teams with certain leadership structures. Our research contributes to the literature on leadership schema by deepening our understanding of leadership structure preferences, and it is the first to empirically test how our leadership schemas change due to individual experiences in teams.

We also find that individuals' preferences for shared or hierarchical leadership structures are influenced by the past team experience. Specifically, we find that team trust influences the preference for shared or hierarchical leadership, in a way that individuals working in teams with higher team trust show greater preferences

Submitted: 5/6/2022, revised: 23/8/2022, accepted: 19/9/2022.

for shared leadership. Moreover, we find that individuals who experienced shared leadership structure have more favorable preferences for shared leadership in teams with high trust, whereas individuals that experienced shared leadership with low team trust develop less favorable preferences for shared leadership structures. Overall, the results suggest that managers can influence individuals' preferences for shared or hierarchical leadership by managing the team experience and building team trust and a positive team climate.

Keywords: Leadership, Leaders, Teams, Schema, Trust, Shared Leadership

JEL classification: M13

Introduction

Prior research suggests that leadership structures (hierarchical versus shared) have important implications for individual, team, and organizational outcomes (D'Innocenzo *et al.*, 2016; Wang *et al.*, 2014). With the increase of self-managed teams in organizations, the topic of shared leadership (a group-level process) is gaining increasing attention in terms of practice and theory as an alternative to hierarchical leadership (individual-level) (Wu *et al.*, 2020). For example, shared leadership influences team performance and effectiveness, and attitudinal outcomes such as team satisfaction (Wu *et al.*, 2020). While prior research has examined some antecedents when teams choose shared or hierarchical leadership such as examining an internal team environment (e.g. a shared purpose, shared support) and team characteristics (team heterogeneity, team size), scholars have recognized the need to examine other antecedents to deepen our understanding of the factors that influence the emergence of a specific leadership structure (Wu *et al.*, 2020; Zhu *et al.*, 2018).

One of the most critical factors that influences the development of a leadership structure is individuals' leadership structure schema (LSS). Individuals differ in their views about how leadership should be structured within groups or teams. In particular, individuals range from preferring leadership to be distributed among individuals (shared leadership) to a preference that leadership should be hierarchical (individual leadership).

Schemas about leadership structure are important because individual knowledge frameworks (e.g. schemas, implicit theories) inform information processing, decisions and behaviors (Detert and Edmondson, 2011; Gervey *et al.*, 1999; Baldwin, 1992) and can shape important team and organizational outcomes. Indeed, there is evidence that LSS shapes team processes and leadership structure

(Evans *et al.*, 2021; DeRue *et al.*, 2015) which in turn are associated with group effectiveness (Evans *et al.*, 2021; Morgeson *et al.*, 2010; Carson *et al.*, 2007).

Despite the importance of LSS in team outcomes, and the significant attention from leadership researcher given to DeRue and Ashord's (2010) work regarding LSS and its impact on leadership structure development, there is limited empirical work regarding LSS. Indeed, to date, the limited research on LSS has focused on its outcomes, rather than its antecedents (DeRue *et al.*, 2015). In other words, while we are beginning to accumulate evidence that beliefs about leadership structure can have important consequences on individual and team outcomes, we still relatively know little about where those beliefs come from, what influences them and how they might change over time. Our research poses a question in this paper, "How do members' experiences in teamwork influence their preferences for leadership structure (LSS)?"

Given the implications for individual preferences for leadership structure (LSS) on teams within today's organizations, such as their impact on the development of leadership structure development as well as their impact on team and individual outcomes (Evans *et al.*, 2021), it is important to understand what impacts the development of individual's LSS. First, individuals differ in their preferences and "a major controversy involves the issue of whether leadership should be viewed as a specialized role or as a shared influence process" (Yukl, 2006). Second, individuals' preferences influence the success of a leadership structure; whether shared or hierarchical leadership leads to successful team outcomes such as enhanced performance, enhanced team effectiveness, or positive team attitudes. When all members have a similar LSS (e.g. all members prefer shared leadership), this leads to individuals supporting the success of a shared leadership (Evans *et al.*, 2021) by acting in ways that ensure the success of shared leadership (i.e. sharing responsibilities, self-motivating, self-directing). In contrast, when members disagree on which leadership structure is preferred (different LSS), this may lead to conflict and to less successful team outcomes (DeRue and Ashford, 2010). Third, individuals' LSS influences their views on their leadership identity and whether they assume leadership roles in teams or not. Thus, LSS influences leadership development in individuals, and understanding how to shape LSS can help inform research and practice on leadership development (Zaar *et al.*, 2020). Despite the importance of understanding how to build successful leadership structures, research on the antecedents of shared leadership versus hierarchical

leadership continues to emerge (Wu *et al.*, 2020; Zhu *et al.*, 2018). Individuals' own preferences for a specific leadership structure (shared or hierarchical LSS) are an important antecedent to the successful development of leadership structures. Accordingly, deepening our understanding of where those preferences come from and what shapes individuals' LSS can help inform research on leadership structures and how to build successful team leadership. In this paper, we explore how members' experiences in a team shape the development of an individuals' LSS. Specifically, our research question focuses on how individuals' experiences in different teams influence their preferences (schema) for a hierarchical or shared leadership structure. Our research paper contributes theoretically and practically by deepening our understanding of how to influence the development of individuals' LSS. Examining the antecedents to LSS development is important as LSS demonstrates how to impact the successful development of shared or hierarchical leadership structures, which impacts team effectiveness and performance, team attitudes (e.g. team satisfaction) as well as individual-level attitudes. Understanding how team climate and structures impact individuals' preferences for a leadership structure offers insights into how organizations can shape individuals' preferences and ensure alignment of such preferences. For example, organizations that desire to create shared leadership need further understanding of what influences individuals' preferences for such a leadership structure. This is because prior research suggests that alignment between members in a leadership structure (shared or hierarchical) influences the effectiveness of the development of leadership structure as well as the effectiveness of the team (Evans *et al.*, 2021; Wu *et al.*, 2020). For example, when members have the same LSS, with a preference towards shared leadership, they are more likely to interact, share responsibility and take accountability (Evans *et al.*, 2021). However, when members have a different LSS, it is more likely to be conflict over leadership. Overall, scholars suggest that the exploration of how leadership structures affect subsequent LSS beliefs would be particularly insightful (DeRue *et al.*, 2015). Thus, we examine the impact of the enacted leadership structure within the team and the level of intra-team trust to understand how the team's experience can influence one's LSS.

We build and test theory in a sample of 621 members in 107 student project teams. In doing so, we make several contributions to the literatures on teams, leadership, and schemas. First, our research contributes to the literature on leadership schema by deepening our understanding of LSS. LSS and other

schemas, both alike, extend the field of leadership schemas beyond Implicit Leadership Theories (ILT). While instructive, studies of ILT are largely performed in laboratory settings and ignore shared patterns of leadership and other leadership processes. Indeed, scholars suggest that other leadership schemas may exist and could have important consequences for team functioning (Lord and Maher, 2002) and that those schemas should be examined (Shondrick *et al.*, 2010).

Second, ours is one of the first empirical tests of LSS and the first of its kind to examine its antecedents empirically. While considerable research examines the outcomes of shared leadership, research about its antecedents is still in its infancy (Zhu *et al.*, 2018). Understanding the antecedents for individual leadership preferences can inform managers about the conditions that might inhibit or induce the formation of shared leadership structures, a growing form of leadership in today's complex organizations (Guadalupe *et al.*, 2013; Ancona *et al.*, 2007; Carson *et al.*, 2007; Ensley *et al.*, 2006; Pearce and Conger, 2003; O'Toole *et al.*, 2002; Fligstein, 1987).

Finally, researchers suggest that the leadership structures are dynamic and vary over time (e.g. Pearce and Conger, 2003). Indeed, some define shared leadership as dynamic, interactive process of mutual influence (Carson *et al.*, 2007). Our research answers the call for more work regarding the temporal nature of shared leadership (Zhu *et al.*, 2018) by examining how a team's experience can shape individuals' preferences for leadership structure.

Theory and Hypotheses

Leadership Structure Schema (LSS)

Individual schemas are generally conceived as organized representations of the past behavior and experience that function as theories about reality to guide a person in a construing new experience (Baldwin, 1992; Markus and Zajonc, 1985; Bartlett, 1932). Those cognitive structures grounded in the past experience (Higgins and Brendl, 1995) are often self-fulfilling (Shih *et al.*, 1999) and automatically applied (Chen and Bargh, 1997), and can vary in accuracy and coherence. Schemas are most commonly implicit, or taken for granted as cognitive structures, but are particularly important for coordinating behavior in relation to others (Ridgeway, 2006; Brewer, 1997).

When scholars consider individual beliefs about leadership, the majority of this work focuses on Implicit Leadership Theories (ILTs) - a specific type of leadership schema. ILT research is concerned with the notion that individuals differ from one another in their conceptualizations of what attributes that define a leader and, consequently, that individuals perceive leaders differently based on whether a given leader matches a particular individual's conceptualization of leaders (Schoel *et al.*, 2011; Epitropaki and Martin, 2004; Offermann *et al.*, 1994; Eden and Leviatan, 1975). Recognizing the shifting landscape and growth of new, non-traditional, non-hierarchical leadership structures (Guadalupe *et al.*, 2013; Ancona *et al.*, 2007; Carson *et al.*, 2007; Ensley *et al.*, 2006; Pearce and Conger, 2003; O'Toole *et al.*, 2002; Fligstein, 1987). DeRue and Ashford (2010) introduce the concept of the Leadership Structure Schema (LSS), conceptualizing it as an individual's cognitive preference for the leadership structure of groups or teams.

Specifically, a Leadership Structure Schema (LSS) reflects individuals' preferences about how leadership should be configured within groups and teams. According to DeRue and Ashford (2010) individuals have different LSS preferences ranging from shared leadership to hierarchical leadership (Carson *et al.*, 2007; Ensley *et al.*, 2006; Pearce and Conger, 2003). These two archetypes - *shared leadership*, in which leadership is conceptualized as a mutual influence process with influence distributed among multiple team members; and *hierarchical leadership*, in which leadership is consolidated in one member - represent contrasting possibilities for the way in which teams are led (DeRue *et al.*, 2015; Wellman *et al.*, 2014; DeRue and Ashford, 2010).

DeRue and Ashford's (2010) claim that individuals can conceptualize leadership structure ranging from one individual (Gemmill and Oakley, 1992) to multiple individuals acting as leaders (Pearce and Conger, 2003) and that those schemas can inform the leadership structure of a team. That is, individuals' leadership structure preferences (LSS) influence the development of a leadership structure in the team (DeRue and Ashford, 2010) as well as impacting the outcomes of the selected leadership structure. For example, Evans *et al.* (2021) show that members' LSS, influences the development of shared leadership and has an impact on individual enjoyment of leadership. LSS influences individuals' attitudes and beliefs about how work and responsibility should be distributed, and how they act within a team (Evans *et al.*, 2021). Individuals with a shared LSS (believe in shared leadership) believe that all members should be leaders, and thus all members must take on additional responsibilities. In contrast, individuals with

a hierarchical or individual LSS, believe that one person should be the leader and assume most leadership responsibilities. Individuals' LSS, thus, influences how members interact with one another and how much responsibility each member undertakes (Evans *et al.*, 2021; DeRue *et al.*, 2015; DeRue and Ashford, 2010). Those differences in LSS then, influence the team processes and team outcomes, as well as individuals' attitudes towards working in the team.

For example, individuals with an LSS for shared leadership are more likely to prefer shared leadership and thus are more likely to engage in behaviors necessary for the success of shared leadership, such as self-motivation and self-direction (Zhu *et al.*, 2018). In contrast, individuals with an LSS for hierarchical leadership are more likely to grant leadership responsibilities and behaviors to other individuals, and to grant those responsibilities of motivation and direction to others in the group. In teams where members have different LSS (some prefer shared; others prefer hierarchical leadership), conflict may arise (i.e. who is the leader?); disengagement may increase as well as less effective team function and team performance (Evans *et al.*, 2021; Liam *et al.*, 2018; DeRue *et al.*, 2015; DeRue and Ashford, 2010). In other words, prior research shows that LSS influences whether individuals take on a leadership role or not (Zaar *et al.*, 2020). In teams where all members prefer a shared leadership structure (they have the same LSS for a shared leadership structure) the members are more likely to take on a leadership role. In contrast, members who do not prefer a shared leadership structure, may not work well in shared leadership teams, because they would either prefer a sole-leadership role or prefer to take a non-leadership role. Accordingly, they may not engage well in teams where everyone is expected to share team leadership responsibilities.

In the focal study, we examine the factors that shape the formation and development of an individuals' LSS. Our theoretical model, which is displayed in Figure 1, unfolds in two stages. In Stage I: A priori, we control for the factors that may influence the LSS that an individual brings to a team experience, with a focus on an individual's core personality. In Stage II: Proximal Experience, we examine how the team experience as such shapes the continued evolution of individuals' LSS. In Stage II, we focus our examination on the effects of the specific team leadership structures enacted and the quality of the experience vis-a-vis team trust in facilitating the development of LSS.

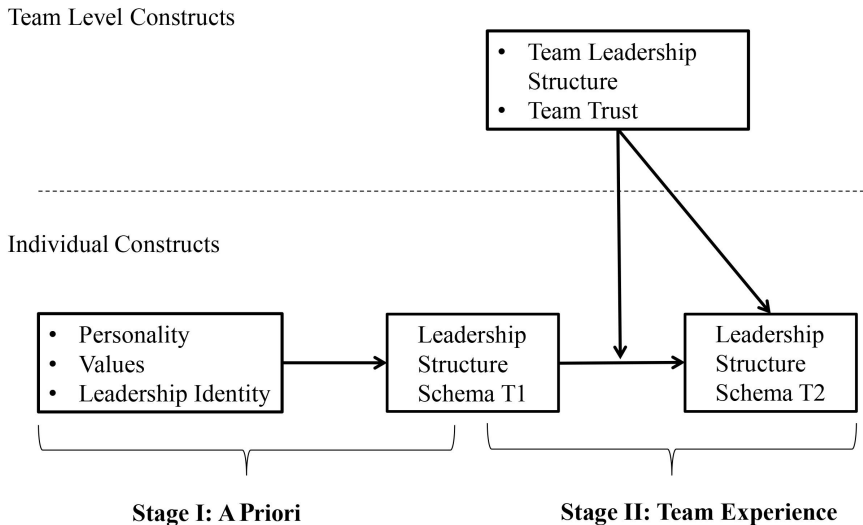


Figure 1: Theoretical Model

LSS Development as a Function of Team Experiences

While core personality, values, and identity provide the foundation for the development of LSS, we share the perspective of other theorists that schemas such as LSS are also informed by social experiences that highlight the schemas in question (Fiske and Linville, 1980). An individual's experience as a team member operating with a certain team leadership structure may constitute such an experience. In this section, we explore a members' LSS *after* experiencing working with a particular team. Before exploring the team-level factors that influence LSS, we pause to make an important clarification. As previously explained, evidence and theory suggest that schemas exhibit qualities of both durability and malleability. Underlying most of the schema theory is the notion that once established, a schema is relatively durable, and likely to only change through disconfirming events (Anderson and Lindsey, 1998; Dweck *et al.*, 1995; Fiske and Linville, 1980). This concept is echoed in the ILT literature, in which ILTs are found to be stable for short periods of time (Epitropaki and Martin, 2004). As a result, despite our exploration of the malleability of LSS, we expect that LSS is relatively stable, such that:

H1: Beginning LSS is positively associated with ending LSS.

Shifting focus to the effect of past experiences on LSS, some suggest that schema can indeed be malleable, changing later in life when individuals have relevant information and experiences to provide content and context to schemas (Ragins and Verbos, 2007). Further, schema may change in the presence of disconfirming evidence (Epitropaki *et al.*, 2013). For example, Labianca *et al.* (2000) point to the role of significant organizational change in modifying employees' schemas about organizational functioning. Finally, a small body of literature suggests that focused interventions may have at least short-term effects on one's schema (Gawonski and Bodenhausen, 2006). Those lines of research suggest that the schema individuals employ may change over time with changes in the situation or context.

In this section, we consider the effects of new relevant information - in the form of a team experience - on individuals' LSS *after* completing their work in teams. This stands in contrast to the previous section which focuses on individuals' LSS *before* forming teams. Our underlying premise is that individuals' experiences in teams, which shed light on the relative attractiveness of various leadership structures, will influence individuals' LSS. We focus on two team experiences: (1) the extent to which one or another leadership structure is enacted (i.e., members' experiences with a certain leadership structure) and (2) the level of trust within the team. We first examine the team leadership structure and the team trust as independent effects and then explore how the team trust and the team leadership structure interact to shape individuals' LSS.

Team Leadership Structure as a Primer for LSS Evolution

We propose that the primary stimulus for the shaping of LSS perceptions should be one's exposure to and experience with shared leadership structures. As described by Ragins and Verbos (2007) attitudes and implicit theories are most susceptible to stimuli that are cognitively proximal to the attitude itself. In other words, when individuals go through experiences, the more similar to the object of evaluation the experience is (e.g., expressing opinion, challenging status quo, working in teams) the more it affects individuals' attitudes towards the focus of evaluation. For example, an individual's belief that voice behaviors (a person expressing constructive challenges to the status quo) might be desired and acceptable in organizations, should be shaped by his or her having witnessed or experienced successful implementation of voice by others in the workplace. Similarly, one's opinion and attitude towards shared leadership (Shared LSS)

should be shaped by one's experience with shared leadership structures. Hence, to have the greatest impact on one's Shared LSS, the team member must be exposed to a shared leadership structure. Then, the more a team exhibits a shared leadership structure the more impact it is likely to have on individual team members' preferences.

To understand the independent effect of individuals experiencing a team leadership structure on changes in the individuals' LSS, we appeal to the theory of confirmation bias in perceptions (Nickerson, 1998). Similar to P-E Theory, under the confirmation bias perspective, individuals seek out information from the environment that confirms their pre-existing perceptions and attitudes. While P-E focuses on situations and their match with individual attributes, confirmation bias focuses on information and its match with individual attributes. Under the confirmation bias perspective information that is not consistent with one's preconceived perceptions is filtered out, such that previously held beliefs and perceptions are reinforced or confirmed (Nickerson, 1998; Anderson and Lindsay, 1998). Then, in each additional team experience team members find elements of the experience to reinforce or re-confirm their pre-conceived notions, leading to a strengthening of one's LSS.

However, situations vary in terms of how powerful the stimulus is. Some have very clear stimuli and others have more ambiguous stimuli. Ambiguous situations are particularly influenced by confirmation bias (Kassin *et al.*, 2013). Prior research suggests that perceivers are more likely to initially spot and react to more extreme or clear stimuli, and thus become less susceptible to confirmation bias (Fiske, 1980; Taylor *et al.*, 1979). With ambiguous stimuli, on the other hand, perceivers are less likely to digest and accept new, possibly disconfirming data, which results in a stronger confirmation bias effect. In the case of a team experience, when the team experience is ambiguous - if the team leadership structure is neither clearly hierarchical nor clearly shared- individuals may scan for and internalize information that reinforces their existing beliefs. In other words, they will confirm their original attitudes and preferences on shared or hierarchical leadership. In contrast, the clearer or more unambiguous the leadership structure is - when the team experience clearly exhibits a hierarchical or shared leadership structure - the weaker the confirmation bias will be. Therefore, in instances of highly shared or highly hierarchical structures, individuals are more likely to respond and react to the actual benefits and weaknesses of the focal experienced structure rather than to appeal to their pre-existing preferences. Thus confirmation

bias will have the greatest effect reinforcing individuals' prior beliefs about shared leadership structures when the leadership structure is less clear and more ambiguous. However, when the leadership structure experience is ambiguous, individuals are less likely to be affected by confirmation bias.

Accordingly, we expect individuals' preferences for a shared or hierarchical leadership structure to be most impacted in extreme situations - when working in teams with extremely low or extremely high levels of shared leadership structures; such experiences will have a greater impact on their attitudes and preferences as they provide clear information and stimuli. On the other hand, we expect individuals' preferences for shared or hierarchical leadership structures to remain the same before and after the team experience when working in teams with moderate levels of shared or hierarchical team leaderships; such experiences do not provide any clear information to change their pre-existing attitudes and preferences. In other words, we expect the relationship between LSS before forming teams and LSS after completing their work in teams to be weaker (most change) at extremely low or high levels of shared leadership because such an experience represents a powerful information stimulus that causes members to react. In contrast, at moderate levels of a shared leadership the experience or information stimuli may not be powerful enough to cause a change in individuals' LSS.

***H2:** Team leadership structure will moderate the relationship between beginning LSS and ending LSS, such that the relationship between beginning and ending LSS will be stronger on teams with moderate, but not high nor low, levels of shared leadership.*

Team Trust Shaping LSS

To materially change a schema, the experience of a particular structure or event should be coupled with other proximal experiences that render it more or less attractive (Labianca *et al.*, 2000). For example, if a team has a shared leadership structure *and* experiences a productive team process, the positive reactions that likely derive from the team experience may attach to the experience of the structure itself. In this section, we propose that team trust serves to provide a positive experience for individuals because of the way in which it meets psychological needs. In this regard, in the presence of team trust, individuals may change their preferences for shared leadership structures.

Team trust is an expectation among team members that others will behave as expected and not be opportunistic (Barczak *et al.*, 2010; Jarvenpaa *et al.*, 1998). Though team trust may be affective in nature (McAllister, 1995) anchored in a shared commitment to the goals of the team. In this paper, we examine the cognitive side of trust, resting on team members' predictability and reliability in carrying out their agreed-upon tasks (Barczak *et al.*, 2010). Team trust is a powerful team state that shapes the nature of interactions among team members. Teams with high team trust experience high levels of collaboration (Barczak *et al.*, 2010), commitment (Costa, 2003), and communication and coordination (Penarroja *et al.*, 2013). Finally, trust is associated with satisfaction and shared commitment (Yang and Mossholder, 2010). Because team trust influences the perceived fit between psychological needs and supplies, we expect that team trust will shape LSS both directly and in conjunction with team leadership structures.

We posit that team trust increases one's LSS (preference for shared leadership) through two processes. First, at the team level, team trust creates a climate in which individuals with certain psychological needs find fulfillment. Trust rests on two factors: assessments of the other party's benevolence and ability (Mayer *et al.*, 1995). Benevolence refers to the assessment that the focal party has the alters' best interests in mind and is trying to do good by them. Ability refers to the focal party's view that the alters are capable of executing the task at hand (Mayer *et al.*, 1995). In teams with high team trust, members believe that members of the group have the interests of the group at heart (e.g. benevolence) and are capable of contributing at a high level (e.g. ability) to help realize team goals. This belief creates an openness to shared leadership structures. Taken to its full limit, this mechanism allows for the possibility of distributed influence and ultimately shared leadership (Bligh *et al.*, 2006). The key point here, though, is that team trust creates an openness to shared leadership that is greater even without team trust. Individuals who experience high team trust are more likely to have a greater preference for shared leadership or a high LSS because of more positive assessments of member's benevolence and ability. In contrast, when members experience working in a team that lacks trust, members will have lower preferences for LSS in the future because their experience causes them to doubt or have less belief that other members are capable of executing their tasks or that members have each other's interest at heart. By experiencing working in teams with low trust, members will be more skeptical of working in teams with shared leadership structures in the future.

The second mechanism operates at the individual team member level and is related to the establishment of leadership roles within the team. DeRue and Ashford (2010) conceptualize the process of leadership structure formation as being shaped through an interrelated process of leadership claims and grants. Individuals can make leadership claims by proposing a solution, calling a meeting, or challenging existing processes. Then, leadership grants may accept the proposal, attend the meeting, or change the process. Team trust, we suggest, is a lubricant that allows the claiming and granting process to occur. Making a leadership claim or grant requires taking a risk and can render the individual vulnerable. For example, leadership claims run the risk of being rejected by others while making leadership grants entail a risk because they cede greater control to other team members. Thus, team trust provides a safety net that enables individuals to assume the risks of making leadership grants and claims. In an environment of high trust, more members are likely to claim (and be granted) leadership roles, leading to the possibility of more shared leadership. In addition to likely yielding more shared leadership within the team, team trust allows team members to see the possibility of shared leadership because it reduces the risks associated with multiple team members making leadership claims and grants. As a result, we predict that individuals within teams with greater team trust will experience a shift in LSS toward a preference for shared leadership.

In the absence of team trust, we suspect that neither of those two mechanisms functions to increase LSS. To the extent that team members do not trust one another, allowing multiple members to take on the leadership role could seem risky. A simpler structure, with one member assuming most of leadership duties requires less team trust. Further, without team trust, it seems unlikely that members will be open to each other's leadership identity claims - reinforcing a preference for hierarchical leadership. Thus, we hypothesize:

***H3:** Team trust is positively associated with ending LSS such that individuals in teams with high team trust will have a higher preference for shared leadership structures.*

Team Leadership Structure Effects Moderated by Team Trust

In the two previous sections, we theorize about independent effects that team leadership structures and team trust may have on the evolution of individual LSS. In this section, we theorize that the two together more definitively shape the evolution of individuals' LSS. Specifically, we conceptualize team trust as a key

component of the team experience which provides context to allow for the assessment of the relative attractiveness of shared versus hierarchical leadership structures. Prior research suggests that team member reactions to shared leadership may be either positive or negative (Fitzgerald *et al.*, 2013; Mehra *et al.*, 2006). We suggest that team trust allows team members to experience a shared leadership structure positively.

Team trust plays two roles that allow team members to make sense out of the shared leadership structure and arrive at an opinion about it that is not simply a re-affirmation of previously held beliefs. First, team trust enables effective shared leadership because it provides the foundation for team communication and collaboration (Penarroja *et al.*, 2013; Barczak *et al.*, 2010). Not all distributed leadership structures are the same. Indeed, there is evidence that some distributed leadership structures are more fragmented (Mehra *et al.*, 2006) and lead to infighting (Barczak *et al.*, 2010). While those might be measured as “shared”; in practice they may not function that way. Within a high trust environment, distributed leadership structures are more likely to be integrated and coordinated (Barczak *et al.*, 2010). Higher levels of coordination, fostered by trust, are likely to lead to higher real and perceived team effectiveness. The combination of coordination and effectiveness leads to the possibility of team members experiencing the shared leadership process positively and leads them to have a more shared version of LSS at the end of the project rather than at the beginning.

In addition, the feeling of team trust per se can be a positive experience or state for the team. That in turn shapes the rest of the of the perception of the team. In effect, a high trust environment may lead team members to perceive the entire team experience positively. Observers are often influenced by the “halo effect.” Under the halo effect, a positive experience or assessments in one area of team or group functioning may lead to a more generally positive assessment of most, if not all, areas of group functioning (Rosenweig, 2007; Sine *et al.*, 2003; Henik and Tzeglov, 1985; Nisbett and Wilson, 1977). In fact, research confirms that leadership ratings are susceptible to other relevant events or factors related to the group experience (Larson *et al.*, 1984; Lord *et al.*, 1978). Such halo effects exist at the group level and the level of organization as well (Rosenweig, 2007; Anderson and West, 1998). The halo effect suggested here may also be the result of the positive mood, engendered by team trust. Under the Affective Infusion Model (Forgas and Bower, 1987), individuals’ perceptions of others are shaped by the perceiver’s mood, such perceivers experiencing a positive mood are more likely to experience others

positively. Team trust can be a positive affective state, such a high team trust is associated with positive moods for the team members.

By virtue of being part of a positive (or negative) experience, other elements of the team experience can be viewed through a general positive (or negative) lens and derive positive assessments as part of the overall team process, in spite of whether the specific element contributed to team success or not. As such, team trust may allow participants to perceive the overall team experience positively and attribute that effect to the team leadership structure. In the absence of team trust, we hypothesize that the confirmation effect described in the above-mentioned Hypothesis 3 continues to hold.

H4: Team Trust moderates the relationship between team leadership structure and ending LSS, such that in teams with high team trust and high shared leadership, individuals' LSS will shift toward a higher preference for shared leadership structures, while teams with low team trust and high shared leadership will shift toward a lower preference for shared leadership structures.

Method

Sample and Procedure

We tested our hypotheses in a multi-period sample of 621 undergraduate students working in 107 project teams. The students were enrolled in a semester-long introductory management course at an east coast United States business school. We chose students as they provided an ideal situation of structuring their own leadership structure, allowing us to get a variety of leadership structure in the same context. We also ensured that we had enough of a sample size to test our hierarchical linear models, as we needed a big enough sample of students nested in teams. Students were randomly assigned to teams of 5-6 people and given a semester-long project assignment that accounted for approximately one-third of the course grade. Teams ranged in size from 5 to 7 students, with a median size of 6. The teams wrote a business case that allowed the team to illustrate a sampling of concepts from the course. The output of the project was a 12-15-page group paper outlining the case, the team's analysis and the final group presentation.

We gathered data using surveys conducted throughout the duration of the project. While the project itself was a required course component, participation in the surveys was not. Students were awarded extra credit for participation in the study which could be worth 1% of their course grade. Two surveys were

conducted: Time 1 (T1) was during the first two weeks of the course and immediately prior to team formation. Time 2 (T2) was 10 weeks after T1, approximately 1 week prior to the end of the semester. At T1, we asked participants to complete surveys measuring control variables and a leadership-structure schema (LSS). 593 (96%) participants from 107 teams completed the surveys at T1. After adjusting for missing data, we were left with a sample of 463 participants (75% of the sample). In this sample of 463 participants, 58% of participants were white/Caucasian, 23% were Asian, 57% were male, and average age was 18 years.⁽¹⁾

The same students were asked to complete the survey at T2, which measured team level trust and team shared leadership and an individual-level LSS at T2. 594 of participants completed the survey at T2, for a response rate of 88%. We excluded participants who did not complete the LSS scales at both T1 and T2 in order to test how leadership structure schema evolved over time (Hypotheses 1-4). After deleting missing data, the T2 sample for testing H1-4 comprised 464 participants. To ensure sufficient representation within any team, we excluded two teams with less than three members providing usable data. Our analysis of H1-4 was based on a sample of 459 members of 105 teams. In this sample, 60% of participants were white/Caucasian, 21% were Asian, 57% were male, and average age was 18.

Measures

Dependent Variable

Leadership Structure Schema (LSS). To measure respondents' beliefs on leadership structure we developed an 8-item scale for Leadership Structure Schema (LSS). We followed a modified version of Hinkin's (1995, 1998) approach to develop the LSS scale for this study. The exploratory factor analysis was conducted on the LSS scale (Table 1). We used the resulting 8-item scale in the current study and measured each item on a 7-point-agree-to-disagree scale, where 1 = "totally disagree" and 7 = "totally agree." A sample item includes "Teams work better when there are multiple people leading." All measures in the study used this 7-point scale unless otherwise noted. A high score on this scale indicates a preference for shared leadership structures. A low score on this scale indicates a preference for hierarchical leadership structures. We conducted a CFA on the LSS

scale for the current study population and found that it had a CFI of .90, RMSEA of .152 and a SRMR of .068. Cronbach alpha was .89 at T1 and .78 at T2.

The specific items are listed in Table 1. We tested those items in a separate sample of 229 working professionals through Amazon Turk (MTurk). For each item, we used a 7-point -agree-to-disagree scale (e.g. 1 = strongly disagree to 7 = strongly agree). We conducted an exploratory factor analysis (EFA) on those data using the promax rotation with power = 2, pre-rotated using equamax rotation. The EFA yielded the two-factor structure we predicted. However, the LSS construct consisted of eight out of the original nine items loading on the factor. The LCS factor consisted of six out of the original nine items. The resulting factor structure with item factor loadings is reported in Table 2. The Cronbach's alpha for the LSS scale was .935.

To further validate this instrument, we implemented the LSS scale in an additional population of 216 respondents through MTurk. We conducted a confirmatory factor analysis (CFA) on those 216 participants using MPlus (Muthén and Muthén, 2011) and found that 8-item LSS factors had an acceptable fit ($\chi^2(20) = 167.6$, CFI = .911, RMSEA = .185, SRMR = .047). The alpha for LSS was .942.

Finally, we implemented the scale in another sample from MTurk, which included 286 respondents. In this sample, in addition to the LSS scale, we asked respondents to complete the 4-item scales of Learning Goal Orientation and Performance Goal Orientation (Steele-Johnson *et al.*, 2008), the 6-item scales of Compassionate (Group Oriented) Goals and Self-Oriented Goals (Crocker and Canevello, 2008), the 8-Item Need for Status scales (Flynn *et al.*, 2006), the 7-Item Preference for Group Work scale (Shaw *et al.*, 2000) and the 7-Item Individual Competitiveness scale (Cassidy and Lynn, 1991). In this sample, we first reconfirmed the factor structure using CFA and reconfirmed the internal reliability of the LSS scale. We conducted a confirmatory factor analysis (CFA) and found that LSS scale had an adequate, though not a superior fit ($\chi^2(20) = 241.8$, CFI = .879, RMSEA = .20, SRMR = .048). The alpha for LSS was .929. In this final sample, we also examined the convergent and discriminant validity of the LSS scale by examining the correlations of LSS to the other possibly related scales in the sample. As we expected, Individual Competitiveness was negatively correlated with LSS. Also consistent with our original prediction, Learning Goal Orientation was positively correlated with LSS, but Performance Goal Orientation was not.

Finally, Compassionate Goals were positively associated with LSS, while Self-Interested Goals were not correlated with LSS.

Table 1
Exploratory Factor Analysis: Team Leadership Schema

Item #	Item content	Leadership	Leadership
		Structure Schema (LSS)	Competitiveness Schema (LCS)
1	Teams work better when there are multiple people leading.	0.81	
2	Leadership cannot be shared among team members. (Reverse)	--	
3	There must be only one leader in a team. (Reverse)	0.85	
4	If one person is leading, all others must be following or taking directions. (Reverse)	0.53	
5	Leader is one role that must be performed by only one person at a time. (Reverse)	0.79	
6	Teams are more successful when only one person is leading. (Reverse)	0.84	
7	When multiple people share leadership in the team, better work can be produced.	0.88	
8	When multiple people share leadership within a team, good ideas are generated.	0.86	
9	Having more than one person lead on a team makes the team inefficient. (Reverse)	0.79	
10	Leaders have more status or prestige than other team members.		0.60
11	Being the leader of a team means you are better than the others.		--
12	Team members will compete with others for leadership roles.		0.64
13	People become leaders by competing with others for the role.		0.65
14	The leadership role is a prize to be won by a member of the team.		0.59
15	Being perceived as the team's leader is valuable.		0.67
16	Leadership is something we are obliged to do if called.		--
17	People become leaders when others ask them to do so.		--
18	People get ahead in life by being leaders.		0.62

N=229 Individuals

EFA conducted with promax rotation, power=2, pre-rotated with equimax rotation

Independent Variables and Moderators

Team Trust. We assessed team trust using four items from Kirkman *et al.* (2006). A sample item is “My team members have a high degree of trust between each other.” Cronbach alpha was .90. We aggregated individual responses to the team level. To test the validity of aggregating trust (Klein *et al.*, 2001) we calculated the intra-class correlation coefficients (ICCs), ICC(1) and ICC(2) and Rwg(j). The resulting statistics were Rwg(j) = .74, ICC (1) = .08, ICC (2) = .30. These results were mixed in terms of justifying aggregation. As Rwg(j) was the primary metric for aggregation, we deferred to that in aggregating team trust to the team level of analysis.

Shared Leadership. We assessed shared team leadership by measuring *team leadership density* using a social network approach (Carson *et al.*, 2007). Density is

defined as the “overall level of interaction of various kinds reported by members” (Sparrowe *et al.*, 2001). Thus, leadership density is a measure of the total amount of leadership displayed by team members as perceived by the members of the team. As described by Carson *et al.* (2007), the *density* measure can be a good operationalization of shared leadership since, at high levels of density, leadership must be shared by or distributed among many team members.

In the T2 survey, team members rated the extent to which each of their peers provided leadership to the team. The specific question was “For each member (including yourself), please assess the extent to which that person provides leadership to your team.” Participants assessed each team member on a scale of 1 = “not at all” to 7 = “to a very great extent.” The resulting data set was an NxN matrix of leadership assessments, where N was the size of the team. From this matrix we calculated team leadership density as the total of all responses within the team divided by the total possible responses in the team (Sparrowe *et al.*, 2001). For example, if the team has 5 members, the maximum possible of all responses for the team is 175, which is the denominator of the team leadership density calculation. If, across the team, members receive a total of 110 valued responses (averaging 4.4), then the density of the team is $110/175 = 62.8\%$. We adjusted these statistics to account for missing respondents by considering the missing responses as being the average of those provided by the participating team members (Sparrowe *et al.*, 2001).

Control Variables. We included several demographic control values. Respondents reported their *age* in years. Respondents also reported their *sex* (0: “male”, 1: “female”) and their ethnicity/race (e.g. white, Asian, Hispanic, African or African American, or others). 80% of our sample of participants were either white or Asian. Therefore, we re-coded ethnicity/race into two dummy variables: *white* for which 1 = “White,” 2 = “not White”; *Asian* for which 1 = “Asian,” 2 = “not Asian.”

We also controlled for the individual’s Big Five Personality. We used the International Personality Item Pool (IPIP) to measure personality in the T1 survey (Goldberg, 1992). The IPIP is a 50-item instrument with ten items for each of the five personality constructs: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. The full set of items can be obtained from the following web site, http://ipip.ori.org/new_ipip-50-item-scale.htm. Prior research shows that personality traits such as agreeableness and extraversion may influence leadership outcomes and leadership emergence (Judge *et al.*, 2002), so we included all five constructs in our analysis in order to maintain the psychometric properties of the entire scale (Alterman *et al.*, 2003; Smith *et al.*, 2000).

Finally, we controlled for Leadership Identity. Beyond core personality, an individual's views about his or her own leadership may shape that individual's preference for shared leadership. Leadership identity is defined as the extent to which an individual sees him or herself as a leader (Van Iddekinge *et al.*, 2009; Harms *et al.*, 2007; Chan and Drasgow, 2001). Leadership identity is generally associated with high individual competitiveness and achievement orientation (Chan and Drasgow, 2001) that can discourage individuals from sharing the leadership role with others (Coleman, 2004). Given that individuals seek situations that match their preferences, individuals who hold positive leadership identity are more likely to prefer hierarchical leadership structures as this will allow them to experience a leadership role. We assessed Leadership Identity by using the nine-item Affective Identity factor of the Motivation to Lead (MTL) scale (Chan and Drasgow, 2001). A sample item is "I am the type of person who likes to be in charge of others."

Analytical Considerations

To analyze the development of individuals' LSS over time (Team effects, H1-4) we use Hierarchical Linear Modeling (HLM- Bryk and Raudenbush, 1992). We used HLM because the data in the present study are multi-level in nature with participants nested within teams and because our theory and analysis occur at multiple levels of analysis. Specifically, the dependent variable, LSS T2, is an individual level construct, while the predictor variables (team trust and team leadership structure) are at the team level of analysis. Our hypotheses predict that significant variance in team members' ending LSS can be explained by both team and individual level effects. Hypotheses 1-4 are cross-level effects and HLM is well suited for these cross-level effects as it allows the researcher to test the relationships between team level variables and individual level variables (Bryk and Raudenbush, 1992). In particular, HLM overcomes the assumption that the outcome variable (LSS T2) is purely independent of a group level effect such as team experience.

Results

Descriptive Statistics

Tables 2 and 3 provide the means, standard deviations, reliabilities, and correlations of the measures and variables used in the study. Table 2 displays the individual level variables, while Table 3 displays the team-level variables.

Table 2
Individual-Level Variables Descriptive Statistics and Correlations
(N = 463 Individual Members)

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	18.27	0.68												
2. Female	0.43	0.50	-1.57**											
3. White	0.58	0.49	-0.81	-0.42										
4. Asian	0.23	0.42	.123*	.022	-0.649**									
5. Openness to Experience	5.15	0.78	-.104*	-.117*	.195**	-.197**	0.75							
6. Conscientiousness	5.19	0.99	-.015	.069	.070	-.100*	.110*	0.86						
7. Extraversion	4.97	1.05	-.071	.042	.242**	-.191**	.359**	.041	0.87					
8. Agreeableness	5.64	0.84	-.043	.141**	.029	.005	.202**	.177**	.163**	0.82				
9. Neuroticism	3.22	0.97	-.056	.175**	-.074	.127**	-.253**	-.259**	-.237**	-.142**	0.82			
10. Leadership Identity	5.15	1.10	.010	-.090	.231**	-.198**	.364**	.228**	.462**	.035	-.215**	0.88		
11. Leadership Structure Schema (LSS) T1	4.29	1.20	.013	.096*	.020	-.066	.001	.037	.036	.174**	-.052	-.094*	0.89	
12. Leadership Structure Schema (LSS) T2 ^a	4.19	0.91	-.107*	.072	-.037	.039	-.011	-.037	-.112*	.076	.027	-.098	.293**	0.78

Table 3
Team Level Variables Descriptive Statistics and Correlations
(N = 105 Teams)

Variable	Mean	S.D.	1	2
1. Team Trust	5.17	0.59	.090	
2. Team Leadership Density	54.38	12.34	0.082	

HLM Results for Evolution Hypotheses: Team Effects on Individual LSS

Preliminary Analysis

Table 4 summarizes the results from hierarchical linear modeling (HLM) analyses for Hypotheses 1-4. Our hypotheses suggest that team level variables constructs team trust and team leadership density influence on an individuals' LSS at T2 after accounting for his or her LSS at T1. As indicated in Model 6, we found significant between team variability ($\tau_{00} = .053, p = .041$) in LSS T2. Calculating ICC (1) values for LSS T2 indicated that 6 percent of the variance in team member's LSS at T2 was between teams, and 94 percent was within teams (Liao and Rupp, 2005). This contrasted with the results of the similar test at T1, in which 99.9% of the variance in LSS T1 was at the individual level.

Table 4
Results of Hierarchical Linear Modeling for Effects on LSS Time 2

Variable	6	7	8	9	10	11	12	13	14	15	16	17	18
(Null) Baseline													
<i>Level 1 - Intercept as Outcome</i>													
LSSI		γ_{10}	.214**	.213**	.208**	.213**	.207**	.214**	.208**	.213**	.207**	.216**	.209**
Trust		γ_{01} (Trust)						.165*	.163*	.167*	.163*	.172*	.127
Density		γ_{02} (density)	.002	.004	-.004	.002	.001	.003	.002	.002	.008	-.001	.001
Density ²		γ_{03} (Density squared)			.000	.000				-.000	-.000	-.000	-.000
<i>Level 2 - Slope Effect</i>													
Density		γ_{11} (Density)		.006*		-.000		.007*		-.002			-.003
Density ²		γ_{12} (Density squared)			.000					.000			.000
<i>Level 2 - Intercept Effect of Interaction Term</i>													
Intercept (L2 variance)		γ_{00}	.053	.067	.065	.068	.065	.068	.058	.054	.058	.054	.049
Slope (L2 variance)		γ_{11}	.020	.021	.019	.021	.019	.018	.019	.019	.019	.019	.022
Within-team (L1) variance		r^2 (σ^2)	.774	.664	.663	.656	.663	.656	.665	.666	.655	.666	.664
Reduction in slope variance ^a			-	10%	-	19%	-	19%	-	0%	-	0%	5%
Reduction in Intercept Variance ^b			3%	-	3%	-	13%	19%	-	19%	-	30%	-
Deviance ^b	1210	1162.7	1162.5	1157.7	1162.4	1157.6	1158.1*	1158.1	1153.0*	1158.1	1152.7	1154.5	1148.3*

^a Reduction calculated by comparing to previous model.

^b Models compared to Baseline Model. N = 459, individual team members, 105 teams *p < .05, **p < .01, ***p < .001.

Baseline Prediction: LSS T2 is Related to LSS T1.

Hypothesis 1 suggests that LSS T2 would be positively associated with LSS T1. Model 7 includes LSS T1 (using grand mean centering) as a predictor of LSS T2. As indicated in Model 7, LSS T1 was positively related to LSS T2 ($\gamma_{10} = .21$, $p < .001$). In this baseline model, the ICC (1) value indicates that 9% of the variance resided at the team level. That is, after including LSS T1 as a level one predictor, the amount of variance attributable to team level effects increases compared to the null model. These results support Hypothesis 1.

The Moderating Effect of Shared Leadership:

Hypothesis 2 predicts that shared leadership will moderate the relationship between LSS T1 and LSS T2 with a curvilinear relationship. Specifically, we predict that individuals on teams with either very high-shared leadership or very low shared leadership would demonstrate a weaker relationship between LSS T1 and LSS T2. To test this hypothesis we examined the cross-level effect of team leadership density squared on the slope of the relationship between LSS T1 and LSS T2.

To test cross-level moderating effects, we start only with a model with main effects, followed by the cross-level effects. Taking this two-step approach is necessary to evaluate whether team leadership density explains the variance in slopes across teams (Aguinis *et al.*, 2013). In Model 8 we enter the linear team leadership density variable as a level 2 predictor influencing the level 1 intercept, and the result is not significant ($\gamma_{02} = .002$, $p = .600$). Next, in Model 9 we enter the linear shared leadership variable as a level 2 predictor influencing the level 1 slope coefficient. As indicated in Model 9, shared leadership is a significant predictor of the strength of the relationship (the slope coefficient) between LSS T1 and LSS T2 ($\gamma_{11} = .006$, $p = .015$), such higher levels of shared leadership strengthen the relationship between LSS T1 and LSS T2.

After testing the cross-level effect of the linear shared leadership (Models 8 and 9), we begin examining our primary hypothesis by including the squared term of team leadership to assess the curvilinear effect hypothesized. The curvilinear hypothesis predicts that at extreme levels (high shared leadership or high hierarchical leadership) will weaken the effect of LSS T1 on LSS T2. We apply the same two-step approach used when testing the effect of the linear shared

leadership. Specifically, in Model 10 we enter the linear and squared effect of density on the intercept. Both the effect of shared leadership ($\gamma_{02} = .002, p = .618$) and shared leadership squared ($\gamma_{03} = .000, p = .782$) on the intercept are statistically insignificant. Next, in Model 11, we include the linear and squared effect of shared leadership on the slope. As indicated in Model 11, the effect of shared leadership squared on the slope is not statistically significant ($\gamma_{12} = .000, p = .656$). In Model 16 we include the intercept effect of trust to Model 10. That is, while Model 10 focuses specifically on H2, Model 16 tests both the cross-level interaction effect of shared leadership squared (H2) as well as the cross-level intercept effect of trust (H3) simultaneously. Again, we do not find a statistically significant effect of density squared on the slope of the relationship between LSS T1 and LSS T2 ($\gamma_{12} = .000, p = .571$, Model 16). Therefore, hypothesis 2 is not supported.

We also investigate the *linear* moderating effect of team leadership density (Model 9, Model 14). Model 14 also includes the intercept effect of team trust. The effect of shared leadership on the slope is significant in Model 14 ($\gamma_{11} = .007, p = .012$). To interpret the cross-level moderating effect, we plot simple slopes for the grand means and ± 1 SD of LSS T1 and Density predicting LSS T2. Figure 2 shows that the within-team effect of LSS T1 on LSS T2 is moderated by the between-group effects of team leadership density, with the relationship stronger under high density. The overall pattern of results indicates that high shared leadership moderates (strengthens) the development of LSS from T1 to T2, but that low shared leadership has no effect on this relationship. This set of findings deserves further exploration that is beyond the scope of this paper. However, one possible explanation is that shared leadership, while not a very new phenomenon, remains a novel concept in use in a minority of organization designs. Research on perceptions suggests that people's attention is drawn to novel stimuli (Johnston *et al.*, 1990). In this case, exposure to high density (shared leadership) structures draws attention allowing for a moderating effect.

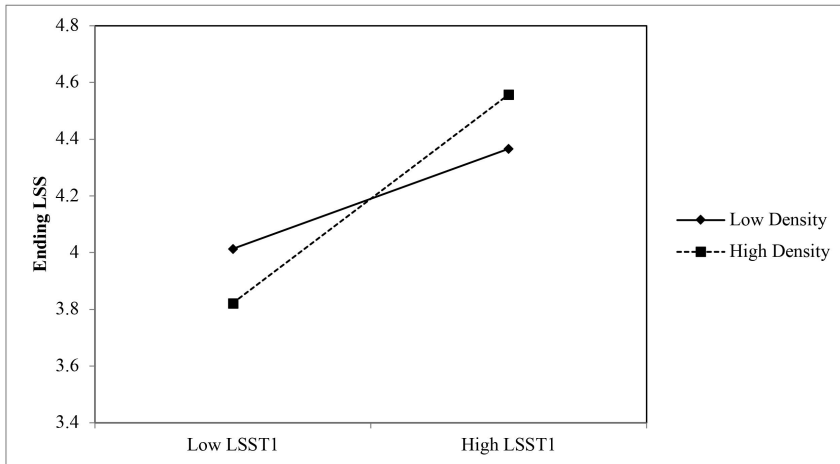


Figure 2: Cross-Level Interaction Effect of Density on the Relationship between LSST1-T2

The Main Effect of Team Trust:

Hypothesis 3 predicts that individuals on teams with high team trust will have higher LSS at T2 compared to individuals in teams with low trust. We test this hypothesis by modeling the intercept effect of team trust. We regress the intercept coefficient obtained from the level 1 model on team trust at level 2, controlling for LSS at T1. Model 12 includes the intercept effect of team trust only (H3), and Model 16 includes the intercept effect of trust as well as the slope effect of team density squared (H2). As reported in Models 12 and 16 team trust demonstrate a significant and positive effect on LSS T2 ($\tau_{10} = .165, p = .047$, Model 12; $\gamma_{10} = .172, p = .038$, Model 16). Therefore, hypothesis 3 is supported.

The Interaction of Team Trust and Shared Leadership:

Hypothesis 4 predicts that the effect of Shared leadership on individual level LSS at T2 differs based on the level of team trust. In H2, we predict that individuals who experience particularly extreme versions of either shared or hierarchical leadership (i.e. very high or very low density) will simply reinforce their LSS at T1 in the form of LSS at T2; hence the focus of H2 is on the effect of shared leadership on the *slope* of the relationship between LSS at T1 and LSS at T2. In contrast, in H4 we predict that if individuals experience high trust and high shared leadership, they will change their LSS by shifting in favor of a stronger preference for shared leadership. Analogously, if they experience low trust and high shared leadership, they would be more likely to shift their preferences toward hierarchical leadership,

or low LSS. Thus, in H4 we are interested on how the combination of trust and shared leadership influences ending LSS at T2, independent of, but controlling for of starting LSS at T1. Therefore, in H4, we examine *intercept* effects.

To test H4, we construct a team-level (level 2) interaction term in which team trust interacts with shared leadership (Model 17, Table 4) and regresses the level 1 intercept coefficient (LSS T2) on the interaction term. As indicated in Model 17, the interaction of team trust with shared leadership does not reveal a significant positive effect on the intercept ($\gamma_{04} = .013$ $p = .061$). Yet, the model with the interaction term (Model 17), accounts for 30% of the variance in the intercept (LSS T2). In other words, collectively, the main effects of team trust and shared leadership, and the interaction of team trust and shared leadership explain 30% of the variance in team's average LSS score at T2. Finally, we include all hypothesized relationships (hypothesis 2-4) in Model 18. That is, compared to Model 17, we also include the slope effect of both team leadership density and team leadership density squared in Model 18. As reported in Model 18, the interaction of team trust with shared leadership shows a statistically significant positive effect on the intercept ($\tilde{\alpha}_{04} = .014$ $p = .036$, Model 18), supporting H4. Overall, there is partial support for H4.

To interpret the effect of the interaction of team trust and shared leadership on the intercept (LSS T2), we plot the interaction in Figure 3. The graph of the interaction shows that in teams with high team trust and high shared leadership, individuals' preferences for shared leadership increase. In comparison, individuals in teams with high shared leadership but low team trust display the lowest LSS at T2. More specifically, on average, individuals in teams with high team trust and high shared leadership have the highest LSS at T2, while individuals in teams with low team trust and high shared leadership have the lowest LSS at T2, lower than individuals in teams with low shared leadership. The pattern of results supports our hypothesis that solely experiencing shared leadership structure may not be sufficient to increase individual preferences for shared leadership. Rather, trust plays an important part in the way individuals perceive the attractiveness of shared leadership.

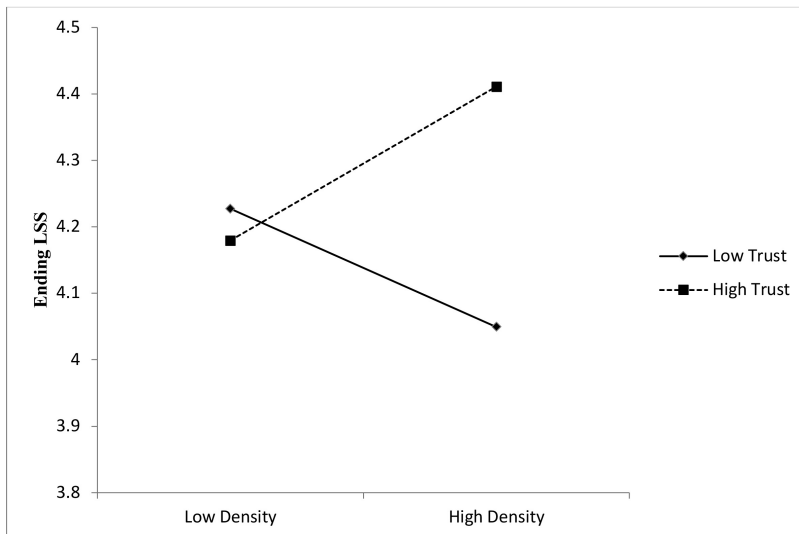


Figure 3: Level 2 Interaction Effect of Team Trust and Team Leadership Density on Individual LSS T2.

Discussion

Our objective in this paper is to build and test theory regarding the antecedents and development of Leadership Structure Schema (LSS). Although DeRue and Ashford's (2010) work on leadership identity negotiation and LSS captured many researchers' attention, there is a surprising lack of work devoted to examining various aspects of LSS. To our knowledge, none has focused empirically on the factors that may shape the formation and evolution of this key preference. Thus, the major contribution of our study is in explicating the contours and dimensions of LSS, bringing it from theory into grounded empirics and practice.

Our set of hypotheses examines the effects on one's LSS from a specific team experience. Here we have three sets of findings. First, team trust shapes a given individual's preference for shared leadership. When team trust is high, people gravitate toward a preference for shared leadership. This is likely because team trust opens individuals up to the possibilities of more fluidity in team management and role definitions. Second, we find that trust interacts with the actual structure enacted to increase the effect on LSS. When the team enacts a shared leadership structure, the level of team trust determines whether members react positively or not. In a high trust team, team members see the value and potential of shared leadership and their LSS shifts toward a greater preference for shared leadership.

However, in a low trust scenario, members do not react favorably to the shared leadership structure. Thus, we find evidence that trust may be necessary for making shared leadership function and for building comfort among team members with it. Without trust, shared leadership is complex and possibly threatening, leading members to retreat to a preference for simple, more well understood models of leadership such as hierarchical leadership.

Our third finding is that when people are in teams with shared leadership, their previously held LSS is reinforced and held more strongly. In teams with hierarchical leadership, according to our finding, individuals' preferences regarding leadership structures are less likely to be reinforced. This finding deserves more exploration. One possible explanation is that shared leadership represents the "new" phenomenon, coming on the heels of hierarchical leadership as the predominant model. The presence of the new and novel awakens one's cognitive processing and draws our attention to the situation. However, without additional new information with which to evaluate the scenario (e.g. team trust) individuals' confirmation biases dominate and they revert to their prior held beliefs.

In this paper, we focus our theory and empirics on a general form of LSS, a general preference for shared leadership (or not) that individuals hold more or less independent of the specific situation. Though we don't explore it in this paper, we also believe that individuals can hold a situation specific LSS. A situation specific, or contingent, LSS would have the form of a preference for leadership *in this team* or *at this time*. For example, individuals may prefer hierarchical leadership during times of crisis or when team members lack sufficient skills to share in a leading role. We believe there is a need for future research which examines the range of contingencies and integrates them with our more general view.

Theoretical Contributions

First, our paper of findings contributes to the theory on the role of LSS on team leadership. Specifically, our findings build on prior research that examines the effect of LSS on team processes (Evans *et al.*, 2021), by reversing the relationship and examining the effect of team climate (team trust) on the LSS development. In other words, we find that team trust impacts individuals' preferences for a shared leadership structure. Second, our finding that team trust impacts the development of LSS demonstrates the malleability of LSS, and so builds on the theory regarding the construct of LSS (DeRue and Ashford, 2010). In other words, we find that individuals' LSS can be impacted based on their team experiences.

Third, we build on the theory regarding shared leadership. While prior research examines some antecedents when teams choose shared or hierarchical leadership such as examining an internal team environment (e.g. a shared purpose, shared support) and team characteristics (team heterogeneity, a team size), scholars recognize the need to examine other antecedents to deepen our understanding of the factors that influence the emergence of a specific leadership structure (Wu *et al.*, 2020; Zhu *et al.*, 2018). Recent research examines LSS as an antecedent to the successful development of shared or hierarchical leadership structures, which impacts team effectiveness and performance, team attitudes (e.g., team satisfaction), as well as individual-level attitudes (Evans *et al.*, 2021). We build on this research by showing that team trust may be an initial climate necessary for the development of LSS, before the team is formed to select a leadership structure.

For example, the prior theory and empirical findings suggest that individuals with an LSS for shared leadership are more likely to prefer shared leadership and thus are more likely to engage in behaviors necessary for the success of shared leadership, such as self-motivation and self-direction (Zhu *et al.*, 2018). In contrast, individuals with an LSS for hierarchical leadership are more likely to grant leadership responsibilities and behaviors to other individuals, thereby granting those responsibilities of motivation and direction to others in the group. In teams where members have different LSS (some prefer shared, others prefer hierarchical leadership), conflict may arise (i.e. who is the leader), disengagement may increase, thereby less effective team function and team performance (Evans *et al.*, 2021; Liam *et al.*, 2018; DeRue *et al.*, 2015; DeRue and Ashford, 2010). Therefore, prior research suggests that when members have different preferences of a leadership structure, team functioning may, therefore, suffer. We build on this prior research that examines individual differences for different leadership structures by demonstrating that team-level constructs such as team trust can play an important role in shaping individuals' preferences for leadership structures. Our findings suggest that without team trust, members' preferences for shared leadership may be diminished, which can impact their roles in the team, and can possibly have an impact on their preferences and views of leadership structures in later teams.

We also contribute to the limited theory on the construct of LSS. Our theory and empirics point to a complex view on the durability of LSS. On the one hand, our stage 1 examination - and our measurement approach - find evidence for LSS as a construct close to a trait, an individual difference that endures through time

and is independent of situation and context. On the other hand, our theory and findings in stage 2 support a view that LSS is malleable over time. Our findings focus on students early in their careers. And so the team intervention can be one of a small number of data points that fuel or shape their perspectives on team leadership. Thus, a new experience that adds meaningfully to an individual's experience set can lead to a shift to his or her LSS. This is consistent with, though slightly different in tone from the views of Labianca *et al.* (2000) who focus on a profound change in an environment leading to shifts in schemas.

Managerial Implications

Our two-stage model provides distinct implications and guidance for practicing managers. First, we note that individuals' experiences in teams and the leadership structure in them may affect their preferences for hierarchical or shared leadership. This points to the role managers and leaders can have in shaping team processes. While shared leadership suggests having positive effects on team outcomes without positive team trust, this form of leadership may result in individuals developing less favorable preferences for this structure of leadership in the future. Accordingly, the results suggest that building team trust may be a necessary precondition for managers before attempting to create shared leadership teams. Second, the results indicate that LSS is an interesting hybrid of stable and malleable. This provides management with the latitude to shape team members' perspectives proactively, either through well managed team experiences or through their own advocacy for particular team preferences and behaviors. This is the spot for leaders to drive team culture and climate. As a result, there is a risk in leaving the team unmanaged, that the prior held beliefs can be simply reinforced or that the beliefs of others might infiltrate the team as a whole. Finally, the role of trust in solidifying the positive perspectives on shared leadership present opportunities for management. Alternatively, actively engaging the mechanisms that promote team trust can have effects at both the team and individual levels.

From a practical perspective, the finding that team trust impacts LSS suggests that organizations can shape individual's preferences for shared leadership. For example, organizations that wish to create shared leadership need to pay special attention to first building team trust. This is because the prior research suggests that alignment between members on a leadership structure (shared or hierarchical) influences the effectiveness of the development of leadership structure, as well as the effectiveness of the team (Evans *et al.*, 2021; Wu *et al.*, 2020). For example, when members have the same LSS, with a preference towards shared leadership,

they are more likely to interact, share responsibility and take accountability (Evans *et al.*, 2021). However, when members have different LSS, there is more likely to be conflict over leadership. In other words, individuals' LSS influences how members interact with one another how much responsibility each member undertakes (Evans *et al.*, 2021; DeRue *et al.*, 2015; DeRue and Ashford, 2010). These differences in LSS, then, influence the team processes and team outcomes, as well as individuals' attitudes towards working in the team. Without first building team trust, members may have different schemas on the leadership structure, and this may increase the likelihood of conflict or failed leadership process.

Limitations and Future Research Directions

Though this research advances our understanding of LSS, it has its own set of limitations and boundary conditions which, in turn, frame a future research agenda. One limitation of this study is the use of a student sample. Prior researchers have documented the possible weaknesses to generalizability of student samples (Levitt and List, 2007). While acknowledging this limitation, we see the student sample in this study as a good first step in the testing of our theory. Students, earlier in their careers and in life, are more likely to be susceptible to live interventions (Waterman, 1982) and changes in leadership schema. Indeed, while we note in our theory section that schemas are more likely to change only in times of major turbulence, the fact that college freshmen are early in their "careers," this early/first team experience can be quite salient. This is confirmed by the empirical portion of the study which shows that a small, but significant, portion of the variance in future LSS is a function of the focal team experience. Thus, the student sample presents a good "rule out" test of our theory. If it does not hold in this population, then it is not likely to hold elsewhere. The next step, then, is to test those theories in other populations beyond students.

Though our findings point to a team experience shaping one's LSS, they are limited by the time horizon of the empirical test. The team experience in our study is relatively short and not the centerpiece of the participants' work/school experience. Further, we measure ending LSS immediately after the team experience, rather than further in the future. While it is encouraging that we find results in this short window, the study opens up several new questions. For example, does this shift in LSS persist over time? Schyns *et al.* (2011) suggest that developmental interventions may have an impact on one's schemas and Labianca *et al.* (2000) suggests that major organizational change or shock can serve similarly

as an intervention. Yet, in each of these cases there is still limited information as to the degree of intervention required to effect a lasting change. A more complete research design would include a longer period of measurement and experimental conditions that vary the degree of intervention within one team project and among multiple team experiences.

Our third finding is that when people are within teams with shared leadership, their previously held LSS is reinforced and held more strongly. Within teams with hierarchical leadership, according to our findings, individuals' preferences regarding leadership structures are less likely to be reinforced. This finding deserves more exploration. One possible explanation is that shared leadership represents the "new" phenomenon, coming on the heels of hierarchical leadership as the predominant model. The presence of the new and novel phenomenon awakens one's cognitive processing and draws our attention to the situation. However, without additional new information with which to evaluate the scenario (e.g. team trust) individuals' confirmation biases dominate and they revert to our prior held beliefs.

In this paper, we focus our theory and empirics on a general form of LSS, a general preference for shared leadership (or not) that individuals hold more or less independent of the specific situation. Our framing, theory, and empirical design examines LSS as a general belief held by individuals that they apply to most or all group and team situations. A different, but related issue is whether individuals hold an LSS related to a specific team or group. Though we don't explore it in this paper, we also believe that individuals can hold a situation specific LSS. A situation specific, or contingent, LSS would have the form of a preference for leadership *in this team* or *at this time*. For example, individuals may prefer hierarchical leadership during times of crisis or when team members lack sufficient skills to share in a leading role. We believe there is a need for future research which examines the range of contingencies and integrates them with our more general view.

The concept of a specific LSS might be more related to a team mental model (Mohammed and Klimoski, 2000) or a team climate (Eisenbeiss *et al.*, 2008) Similarly, our theory and empirics are situated in a US business school. So, though there are likely multiple cultural frames of reference within our population, ours is still a US centric view. Exploration of other cultural overlays is an important next step in the overall research stream.

Finally, our study is one of the first to examine the drivers of leadership schema formation, exploring the impact of real time experience. Our examination of the

drivers of LSS, though, is simply a starting point. We and other researchers will need to examine the evolutionary paths of any myriad of schemas, but certainly those that have their roots in both early developmental activities and socially influenced situations. Within the management literature, this could include implicit theories of voice (Detert and Edmondson, 2011) and Implicit Theories of Mentorship (Ragins and Verbos, 2007). In each case, the essential questions are, “What shapes this schema a priori? How sensitive is it to the next current experience? and “What are the factors that shape it in society and in the workplace?”

Conclusion

The advent of Leadership Schemas such as Leadership Structure Schemas (LSS) reflect the changing landscape of group, team, and organization leadership models in use today. With greater prevalence of shared and distributed leadership models, individuals reach for new cognitive models with which to make sense of and assess their group and team functioning. In this paper, we continue the exploration of LSS by examining the factors that shape it, both early and over time. We find that members preferences for leadership structures evolve based on their experiences, suggesting ways to shape individuals’ leadership models.

References

- Aguinis, H., Gottfredson, R. K., and Culpepper, S. A. 2013. Best-Practice Recommendations For Estimating Cross-Level Interaction Effects Using Multilevel Modeling. *Journal of Management*, 39(6): 1490 -1528.
- Allport, G. W. and Lindzey, G. 1954. Handbook of Social Psychology.
- Alterman, A. I., McDermott, P. A., Mulvaney, F. D., Cacciola, J. S., Rutherford, M. J., Searles, J. S., Lynch, K., and Cnaan, A. 2003. Comparison of Embedded and Isolated Administrations of the California Psychological Inventory’s Socialization Subscale. *Psychological Assessment*, 15(1): 64-70.
- Ancona, D., Malone, T. W., Orlikowski, W. J., and Senge, P. M. 2007. In Praise of the Incomplete Leader. *Harvard Business Review*, 85(2): 92-100.
- Anderson, C. A. and Lindsay, J. J. 1998. The Development, Perseverance, and Change of Naive Theories. *Social Cognition*, 16(1): 8-30.

- Anderson, N. R. and West, M. A. 1998. Measuring Climate for Work Group Innovation: Development and Validation of the Team Climate Inventory. *Journal of Organizational Behavior*, 19(3): 235-258.
- Baldwin, M. W. 1992. Relational Schemas and the Processing of Social Information. *Psychological Bulletin*, 112(3): 461-484.
- Barczak, G., Lassk, F., and Mulki, J. 2010. Antecedents of Team Creativity: An Examination of Team Emotional Intelligence, Team Trust, and Collaborative Culture. *Creativity and Innovation Management*, 19(4): 332-345.
- Bartlett, F. C. 1932. *Remembering*. London: Cambridge University Press.
- Bligh, M. C., Pearce, C. L., and Kohles, J. C. 2006. The Importance of Self and Shared Leadership in Team-Based Knowledge Work: A Meso-Level Model of Leadership Dynamics. *Journal of Managerial Psychology*, 21(4): 296-318.
- Brewer, M. B. 1997. The Social Psychology of Intergroup Relations: Can Research Inform Practice? *Journal of Social Issues*, 53(1): 197-211.
- Bryk, A. A. and Raudenbush, S. W. 1992. *Hierarchical Linear Models: Applications and Data Analysis Methods*. Thousand Oaks, CA: Sage
- Carson, J. B., Tesluk, P. E., and Marrone, J. A. 2007. Shared Leadership In Teams: An Investigation of Antecedent Conditions and Performance. *Academy of Management Journal*, 50(5): 1217.
- Cassidy, T. and Lynn, R. 1991. Achievement Motivation, Educational Attainment, Cycles of Disadvantage and Social Competence: Some Longitudinal Data. *British Journal of Educational Psychology*, 61(1): 1-12.
- Chan, K. and Drasgow, F. 2001. Toward a Theory of Individual Differences and Leadership: Understanding the Motivation to Lead. *Journal of Applied Psychology*, 86(3): 481-498.
- Chen, M. and Bargh, J. A. 1997. Nonconscious Behavioral Confirmation Processes: The Self-fulfilling Consequences of Automatic Stereotype Activation. *Journal of Experimental Social Psychology*, 33(5): 541-560.
- Coleman, P. T. 2004. Implicit Theories of Organizational Power and Priming Effects on Managerial Power-Sharing Decisions: An Experimental Study. *Journal of Applied Social Psychology*, 34(2): 297-321.
- Costa, A. C. 2003. Work Team Trust and Effectiveness. *Personnel Review*, 32(5): 605-622.

- Crocker, J. and Canevello, A. 2008. Creating and Undermining Social Support in Communal Relationships: The Role of Compassionate and Self-Image Goals. *Journal of Personality and Social Psychology*, 95(3): 555.
- Derue, D. S. and Ashford, S. J. 2010. Who Will Lead and Who Will Follow? A Social Process of Leadership Identity Construction in Organizations. *The Academy of Management Review...AMR.*, 35(4): 627-647.
- Derue, D. S., Nahrgang, J. D., and Ashford, S. J. 2015. Interpersonal Perceptions and the Emergence of Leadership Structures in Groups: A Network Perspective. *Organization Science*, 26(4): 1192-1209.
- Detert, J. R. and Edmondson, A. C. 2011. Implicit Voice Theories: Taken-For-Granted Rules of Self-Censorship at Work. *Academy of Management Journal*, 54(3): 461-488.
- D’Innocenzo, L., Mathieu, J. E., and Kukenberger, M. R. 2016. A Meta-Analysis of Different Forms of Shared Leadership-Team Performance Relations. *Journal of Management*, 42(7): 1964-1991.
- Dweck, C. S., Chiu, C., and Hong, Y. 1995. Implicit Theories and their Role in Judgments and Reactions: A Word From Two Perspectives. *Psychological Inquiry*, 6(4): 267-285.
- Eden, D. and Leviatan, U. 1975. Implicit Leadership Theory as a Determinant of the Factor Structure Underlying Supervisory Behavior Scales. *Journal of Applied Psychology*, 60(6): 736-741.
- Eisenbeiss, S. A., Van Knippenberg, D., and Boerner, S. 2008. Transformational Leadership and Team Innovation: Integrating Team Climate Principles. *Journal of Applied Psychology*, 93(6): 1438-1449.
- Ensley, M. D., Hmieleski, K. M. and Pearce, C. L. 2006. The Importance of Vertical and Shared Leadership Within New Venture Top Management Teams: Implications for the Performance of Startups. *The Leadership Quarterly*, 17(3): 217-231.
- Epitropaki, O. and 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., Sy, T., Martin, R., Tram-Quon, S., and Topakas, A. 2013. Implicit Leadership and Followership Theories “In The Wild”: Taking Stock of Information-Processing Approaches to Leadership and Followership in Organizational Settings. *The Leadership Quarterly*, 24(6): 858-881.

- Evans, K., Sanner, B., and Chiu, C. Y. 2021. Shared Leadership, Unshared Burdens: How Shared Leadership Structure Schema Lowers Individual Enjoyment without Increasing Performance. *Group and Organization Management*, 46(6): 1027-1072.
- Fiske, S. T. 1980. Attention and Weight in Person Perception: The Impact of Negative and Extreme Behavior. *Journal of Personality and Social Psychology*, 38(6): 889-906.
- Fiske, S. T. and Linville, P. W. 1980. What Does The Schema Concept Buy Us? *Personality and Social Psychology Bulletin*, 6(4): 543-557.
- Fitzgerald, L., Ferlie, E., Mcgovern, G., and Buchanan, D. 2013. Distributed Leadership Patterns and Service Improvement: Evidence and Argument from English Healthcare. *The Leadership Quarterly*, 24(1): 227-239.
- Fligstein, N. 1987. The Intra-organizational Power Struggle: Rise of Finance Personnel to Top Leadership in Large Corporations, 1919-1979. *American Sociological Review*, 52(1): 44-58.
- Flynn, F. J., Reagans, R. E., Amanatullah, E. T., and Ames, D. R. 2006. Helping One's Way to the Top: Self-Monitors Achieve Status by Helping Others and Knowing Who Helps Whom. *Journal of Personality and Social Psychology*, 91(6):1123.
- Forgas, J. P. and Bower, G. H. 1987. Mood Effects on Person-Perceptions Judgments. *Journal of Personality and Social Psychology*, 53(1): 53-60.
- Gawronski, B. and Bodenhausen, G. V. 2006. Associative and Propositional Processes in Evaluation: An Integrative Review of Implicit and Explicit Attitude Change. *Psychological Bulletin*, 132(5): 692-731.
- Gemmill, G. and Oakley, J. 1992. Leadership: An Alienating Social Myth? *Human Relations*, 45(2): 113-129.
- Gervey, B. M., Chiu, C., Hong, Y., and Dweck, C. S. 1999. Differential Use of Person Information in Decisions about Guilt Versus Innocence: The Role of Implicit Theories. *Personality and Social Psychology Bulletin*, 25(1): 17-27.
- Goldberg, L. R. 1992. The Development of Markers for the Big Five Factor Structure. *Psychological Assessment*, 4(1): 26-42.
- Guadalupe, M., Li, H., and Wulf, J. 2013. Who Lives in the C-Suite? Organizational Structure and Division of Labor in Top Management. *Management Science*, 60(4): 824-844.

- Harms, P. D., Roberts, B. W., and Wood, D. 2007. Who Shall Lead? An Integrative Personality Approach to the Study of the Antecedents of Status in Informal Social Organizations. *Journal of Research in Personality*, 41(3): 689-699.
- Henik, A. and Tzelgov, J. 1985. Control of Halo Error: A Multiple Regression Approach. *Journal of Applied Psychology*, 70(3): 577-580.
- Higgins, E. T., and Brendl, C. M. 1995. Accessibility and Applicability: Some "Activation Rules" Influencing Judgment. *Journal of Experimental Social Psychology*, 31(3): 218-243.
- Hinkin, T. R. 1995. A Review of Scale Development Practices in the Study of Organizations. *Journal of Management*, 21(5): 967-988.
- Hinkin, T. R. 1998. A Brief Tutorial on the Development of Measures for Use in Survey Questionnaires. *Organizational Research Methods*, 1(1): 104-121.
- Jarvenpaa, S. L., Knoll, K., and Leidner, D. E. 1998. Is Anybody Out There? Antecedents of Trust in Global Virtual Teams. *Journal of Management Information Systems*, 14(4): 29-64.
- Johnston, W. A., Hawley, K. J., Plewe, S. H., Elliott, J. M. G., and Dewitt, M. J. 1990. Attention Capture by Novel Stimuli. *Journal of Experimental Psychology*, 119(4): 397-411.
- Judge, T. A., Bono, J. E., Ilies, R., and Gerhardt, M. W. 2002. Personality and Leadership: A Qualitative and Quantitative Review. *Journal of Applied Psychology*, 87(4): 765-780.
- Kassin, S. M., Dror, I. E., and Kukucka, J. 2013. The Forensic Confirmation Bias: Problems, Perspectives, and Proposed Solutions. *Journal of Applied Research in Memory and Cognition*, 2(1): 42-52.
- Kirkman, B. L., Rosen, B., Tesluk, P. E., and Gibson, C. B. 2006. Enhancing the Transfer of Computer-Assisted Training Proficiency in Geographically Distributed Teams. *Journal of Applied Psychology*, 91(3): 706-716.
- Klein, K. J., Conn, A. B., Smith, D. B., and Sorra, J. S. 2001. Is Everyone in Agreement? An Exploration of Within-Group Agreement in Employee Perceptions of the Work Environment. *Journal of Applied Psychology*, 86(1): 3-16.
- Labianca, G., Gray, B., and Brass, D. J. 2000. A Grounded Model of Organizational Schema Change During Empowerment. *Organization Science*, 11(2): 235-257.

- Larson, J. R., Lingle, J. H., and Scerbo, M. M. 1984. The Impact of Performance Cues on Leader-Behavior Ratings: The Role of Selective Information Availability and Probabilistic Response Bias. *Organizational Behavior and Human Performance*, 33 (3): 323-349.
- Levitt, S. D. and List, J. A. 2007. Viewpoint: On the Generalizability of Lab Behavior to the Field. *Canadian Journal of Economics*, 40(2): 347-370.
- Liao, H. and Rupp, D. E. 2005. The Impact of Justice Climate and Justice Orientation on Work Outcomes: A Cross-Level Multifoci Framework. *Journal of Applied Psychology*, 90(2): 242.
- Lord, R. G. and Maher, K. J. 2002. *Leadership and Information Processing: Linking Perceptions and Performance*. Routledge.
- Lord, R. G., Binning, J. F., Rush, M. C., and Thomas, J. C. 1978. The Effect of Performance Cues and Leader Behavior on Questionnaire Ratings of Leadership Behavior. *Organizational Behavior and Human Performance*, 21(1): 27-39.
- Markus, H. and Zajonc, R. B. 1985. The Cognitive Perspective in Social Psychology. *Handbook of Social Psychology*, 1: 137-230.
- Mayer, R. C., Davis, J. H., and Schoorman, F. D. 1995. An Integrative Model of Organizational Trust. *Academy of Management Review*, 20(3): 709-734.
- Mcallister, D. J. 1995. Affect and Cognition Based Trust Formations for Interpersonal Cooperation in Organizations. *Academy of Management Journal*, 38(1): 24-59.
- Mehra, A., Smith, B. R., Dixon, A. L., and Robertson, B. 2006. Distributed Leadership in Teams: The Networks of Leadership Perceptions and Team Performance. *The Leadership Quarterly*, 17(3): 232-245.
- Mohammed, S. and Klimoski, R. 2000. The Measurement of Team Mental Models: We have No Shared Schema. *Organizational Research Methods*, 3(2): 123-165.
- Muthén, L. and Muthén, B. 2011. Mplus Version 6.1 [computer program]. *Los Angeles: Muthén & Muthén*,
- Nickerson, R. S. 1998. Confirmation Bias: A Ubiquitous Phenomenon in Many Guises. *Review of General Psychology*, 2(2): 175-220.
- Nisbett, R. E. and Wilson, T. D. 1977. The Halo Effect: Evidence for Unconscious Alteration of Judgments. *Journal of Personality and Social Psychology*, 35(4): 250-256.

- Offermann, L. R., Kennedy Jr, J. K., and Wirtz, P. W. 1994. Implicit Leadership Theories: Content, Structure, and Generalizability. *The Leadership Quarterly*, 5(1): 43-58.
- O'Toole, J., Galbraith, J., and Lawler, E. E. 2002. When Two or More Heads are Better than One: The Promise and Pitfalls of Shared Leadership. *California Management Review*, 44(4): 65-83.
- Pearce, C. L. and Conger, J. A. 2003. *Shared Leadership: Reframing the Hows and Whys of Leadership*. Sage Publications, Inc. And
- Peñarroja, V., Orengo, V., Zornoza, A., and Hernández, A. 2013. The Effects of Virtuality Level on Task-Related Collaborative Behaviors: The Mediating Role of Team Trust. *Computers in Human Behavior*, 29(3): 967-974.
- Rosenzweig, P. 2007. Misunderstanding the Nature of Company Performance: The Halo Effect and Other Business Delusions. *California Management Review*, 49(4): 6-20.
- Ragins, B. R. and Verbos, A. K. 2007. *Positive Relationships in Action: Relational Mentoring and Mentoring Schemas in the Workplace*. In J.E. Dutton and B.R. Ragins, Eds., *Exploring Positive Relationships at Work: Building a Theoretical and Research Foundation*, Mahwah, NJ, US: Lawrence Erlbaum Associates.
- Ridgeway, C. L. 2006. Linking Social Structure and Interpersonal Behavior: A Theoretical Perspective on Cultural Schemas and Social Relations. *Social Psychology Quarterly*, 69(1): 5-16.
- Schoel, C., Bluemke, M., Mueller, P., and Stahlberg, D. 2011. When Autocratic Leaders Become an Option-Uncertainty and Self-Esteem Predict Implicit Leadership Preferences. *Journal of Personality and Social Psychology*, 101(3): 521-540.
- Schyns, B., Kiefer, T., Kerschreiter, R., and Tymon, A. 2011. Teaching Implicit Leadership Theories to Develop Leaders and Leadership: How and Why it Can Make a Difference. *Academy of Management Learning and Education*, 10(3): 397-408.
- Shaw, J. D., Duffy, M. K., and Stark, E. M. 2000. Interdependence and Preference for Group Work: Main and Congruence Effects on the Satisfaction and Performance of Group Members. *Journal of Management*, 26(2): 259-279.
- Shih, M., Pittinsky, T. L., and Ambady, N. 1999. Stereotype Susceptibility: Identity Salience and Shifts in Quantitative Performance. *Psychological Science*, 10(1): 80-83.

- Shondrick, S. J., Dinh, J. E., and 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.
- Sine, W. D., Shane, S., and Di Gregorio, D. 2003. The Halo Effect and Technology Licensing: The Influence of Institutional Prestige on the Licensing of University Inventions. *Management Science*, 49(4): 478-496
- Smith, G. T., McCarthy, D. M., and Anderson, K. G. 2000. On the Sins of Short form Development. *Psychological Assessment*, 12(1): 102-111.
- Sparrowe, R. T., Liden, R. C., Wayne, S. J., and Kraimer, M. L. 2001. Social Networks and the Performance of Individuals and Groups. *Academy of Management Journal*, 44(2): 316-325.
- Steele Johnson, D., Heintz, P., and Miller, C. E. 2008. Examining Situationally Induced State Goal Orientation Effects on Task Perceptions, Performance, and Satisfaction: A Two Dimensional Conceptualization. *Journal of Applied Social Psychology*, 38(2): 334-365.
- Taylor, S. E., Crocker, J., Fiske, S. T., Sprinzen, M., and Winkler, J. D. 1979. The Generalizability of Salience Effects. *Journal of Personality and Social Psychology*, 37(3): 357-368.
- Van Iddekinge, C. H., Ferris, G. R., and Heffner, T. S. 2009. Test of a Multistage Model of Distal and Proximal Antecedents of Leader Performance. *Personnel Psychology*, 62(3): 463-495.
- Wang, D., Waldman, D. A., and Zhang, Z. 2014. A Meta-Analysis of Shared Leadership and Team Effectiveness. *Journal of Applied Psychology*, 99(2): 181-198.
- Waterman, A. S. 1982. Identity Development from Adolescence to Adulthood: An Extension of Theory and a Review of Research. *Developmental Psychology*, 18(3): 341-358.
- Wellman, N., Ashford, S. J., Derue, D. S., and Sanchez-Burks, J. 2014. How Many Should Lead? Leadership Structure Schemas and Informal Leadership Emergence in Groups. *Working Paper*, University of Michigan, Ann Arbor.
- Wu, Q., Cormican, K., and Chen, G. 2020. A Meta-Analysis of Shared Leadership: Antecedents, Consequences, and Moderators. *Journal of Leadership and Organizational Studies*, 27(1): 49-64.

- Yang, J. and Mossholder, K. W. 2010. Examining the Effects of Trust in Leaders: A Bases and-Foci Approach. *The Leadership Quarterly*, 21(1): 50-63.
- Yukl, G. 2006. *Leadership in Organizations*, 6th Ed. Pearson Education, Inc. Upper Saddle River, NJ.
- Zaar, S., Van Den Bossche, P., and Gijsselaers, W. 2020. How Business Students Think about Leadership: A Qualitative Study on Leader Identity and Meaning-Making. *Academy of Management Learning and Education*, 19(2): 168-191.
- Zhu, J., Liao, Z., Yam, K. C., and Johnson, R. E. 2018. Shared Leadership: A State-of-the Art Review and Future Research Agenda. *Journal of Organizational Behavior*, 39(7): 834-852.

الملخص

خبرة الفريق وتفضيل هيكل القيادة

نواف محمد العبدالجادر
جامعة الكويت، الكويت

بريت كرين
جامعة ولاية يوتا، أمريكا

أندرو كوهين
جامعة دنفر، أمريكا

تهدف هذه الدراسة إلى استكشاف كيفية تطوير تفضيل الفرد لهيكل القيادة (المشتركة مقابل الهرمية)، وتأثير تجربة الفريق على تفضيلاته القيادية. استخدمت الدراسة البيانات الطولية واعتمدت على الاستبانات الموزعة على الطلاب طوال فترة دراستهم لجمع البيانات حول تفضيلات هيكل القيادة الفردية والشخصية وثقة الفريق وهيكل القيادة الممارس في فرق عملهم.

وتضمنت العينة 621 عضواً في 107 أفرقة مشروعات طلابية. يعتمد تحليلنا على عينة من 459 عضواً من 105 أفرقة. في هذه العينة، كان 60% من المشاركين من البيض / القوقاز، و 21% من الآسيويين، و 57% من الذكور، ومتوسط العمر 18.

ووجدنا أن تفضيل الفرد لهيكل القيادة (المشتركة مقابل الهرمي) ثابت ومرن. تشير نتائج الدراسة إلى أن ثقة الفريق لها تأثير إيجابي على تفضيل الفرد لهيكل القيادة المشتركة. بالإضافة إلى ذلك، وجدنا أن الأفراد في الأفرقة، ذات الهياكل القيادية المشتركة العالية وثقة الفريق المنخفضة يظهرون تفضيلاً أقل لهيكل القيادة المشتركة، في حين أن الأفراد الذين يتمتعون بهيكل قيادة مشترك عالٍ وثقة عالية بالفريق يطورون تفضيلات أقوى لهياكل القيادة المشتركة. هذه الدراسة هي الأولى من نوعها التي تدرس كيف تؤثر تجربة الأفراد في الأفرقة على تفضيلاتهم لهيكل قيادة معين. قد يكون للأفراد تفضيلات محددة مسبقاً لهياكل القيادة الهرمية أو المشتركة، ولكن هذه التفضيلات تتغير بناءً على تجارب الأفراد في أفرقة ذات هياكل قيادية معينة. تسهم هذه الدراسة في الأدبيات المتعلقة بمخطط القيادة من خلال تعميق فهمنا لتفضيلات هيكل القيادة وهو أول من يختبر بشكل تجريبي كيف تتغير مخططات القيادة لدينا بسبب التجارب الفردية في الأفرقة.

وقد وجدنا أن تفضيل الأفراد لهياكل القيادة المشتركة أو الهرمية يتأثر بتجربة الفريق السابقة. على وجه التحديد، وجدنا أن ثقة الفريق تؤثر على تفضيل القيادة المشتركة أو الهرمية؛ بحيث أظهر الأفراد الذين يعملون في أفرقة ذات ثقة أعلى بالفريق تفضيلاً أكبر للقيادة المشتركة. وجدنا أيضاً أن الأفراد الذين اختبروا بنية القيادة المشتركة لديهم تفضيل أكثر للقيادة المشتركة في فرق تتمتع بثقة عالية، في حين أن الأفراد الذين اختبروا القيادة المشتركة ولكن ثقة الفريق منخفضة كان تطويرهم أقل لتفضيلات هياكل القيادة المشتركة. بشكل عام، تشير نتائجنا إلى أنه يمكن للمديرين التأثير على تفضيل الأفراد للقيادة المشتركة أو الهرمية من خلال إدارة تجربة الفريق وبناء ثقة الفريق ومناخ الفريق الإيجابي.

Nawaf M. Alabduljader is an assistant professor of Management at Kuwait University. He earned his PhD in Business Management from George Washington University in 2018. His research interests are entrepreneurship and human resource management. His work has been published in the Academy of Management Annals, Organizational Research Methods, the Academy of Management Learning & Education, among others. (nawaf.alabduljader@ku.edu.kw)

Bret Crane is an associate professor of Leadership at the Jon. M. Huntsman School of Business and the Executive Director of the Stephen R. Covey Leadership Center at Utah State University. As a respected authority and researcher on topics related to leadership, management, and organizational behavior, he has published over 8 articles across a variety of journals including Journal of Business Ethics, Journal of World Business, Business & Society, and Human Resource Development Review. (bret.crane@usu.edu)

N. Andrew Cohen is an academic director of the Executive MBA program and a professor of the Practice in the Department of Management at the Daniels College of Business at the University of Denver. His teaching focuses on leadership, organizational behavior, team dynamics, human resource management, social networks, ESG, and Diversity, Equity and Inclusion (DEI). (n.andrew.cohen.phd@gmail.com)