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## Role Shifting in Organizational Teams: Grounded Theory and Scale Development

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Role Shifting in Organizational Teams:  
Grounded Theory and Scale Development

A Dissertation

Presented in

Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

By

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06/04/2021

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\*attempting\* to cook me gluten-free food when I visit,

My amazing husband, Collin Davidson, who has and always will push me to be the best version of myself – I love you.

## **Biography**

Tatem H. Burns was born in Flemington, New Jersey on December 18<sup>th</sup>, 1993. She graduated from North Hunterdon High School, in Annandale, New Jersey in 2012, received her Bachelor of Arts in Psychology from Elizabethtown College in 2016, and received her Master of Arts in Industrial/Organizational Psychology from DePaul University in 2019. She currently resides in Chicago, Illinois with her husband, Collin, and their beloved cat, Nono.

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## Abstract

Organizations utilize teams to effectively reach desired goals and performance. An approach to understanding organizational team effectiveness has been through research on team member roles, which refer to the consistent pattern of behavior characteristic of a person in their typical team setting. Research on team member roles has focused on the ability of team members to shift their roles in response to external catalysts (e.g., adapting to a new reward structure); however, research has yet to address internal catalysts to team role shifting (e.g., shifting to reduce role dissatisfaction). The inclusion of research on internal catalysts to team role shifting could be important to team-based organizations, such that potential drivers internal to a team, like member satisfaction, have been related to key organizational factors like counterproductive employee behavior and turnover. Therefore, this dissertation explores the process of role shifting in organizational teams, as well as the potential facilitators and barriers team members have experienced in carrying out a role shift in their team. This current investigation answered five research questions on this topic first by engaging in theory construction using a grounded theory approach. This grounded theory of team role shifting highlights the process individuals take to enact a role shift in their team, as well as the facilitators of and barriers to team role shifting that individuals consider and experience during the process. Next, to make this theory practical in use to organizational teams, a scale measure was developed based on the four types of facilitators and barriers that emerged from grounded theory. Initial results suggest support for a four factor structure based on the four types of facilitators and barriers, as well as supportive reliability and validity evidence. While additional research is needed, the team role shifting measure (TRSM) demonstrates value

to organizations by illuminating features of their teams that could potentially impact employee-level and organizational-level outcomes.

*Keywords:* team roles, organizational teams, team role shifting, role change

### **Role Shifting in Organizational Teams: Grounded Theory and Scale Development**

It is common for organizations to leverage teams to help reach organizational goals and improve performance. Organizational teams research has highlighted how managing the effectiveness of teams can drive organizational success. One particular focus of this research has centered around the roles that members play on a team. The literature has examined the types of task-based and relationally-based roles of team members, formal role specification and role emergence, and how roles adapt in response to changes in the organizational and team context. This research on team roles has taken an overarching perspective that team roles are molded by the broader context of the team and organization. However, it has yet to investigate if and how a team member can drive their own personal role changes within the team network to which they belong. The ability to be an agent of role shifting within a team may be particularly important for employees within organizations. There may be value to understanding the process of shifting roles in one's organizational team. Further, it could be of practical use for team members and organizations to identify the facilitators to and barriers of role shifting within teams, as feeling dissatisfied with one's work is associated with counterproductive work behaviors (e.g., Dalal, Baysinger, Brummel, & LeBreton, 2012) and employee turnover (e.g., Speer, Dutta, Chen, & Trussell, 2019).

A role is defined as a consistent pattern of behavior characteristic of a person in their typical setting (Stewart, Fulmer, & Barrick, 2005). Behavioral expectations shape the roles we engage in, often emerging from sources like societal norms, learned behaviors, or formal role assignments (Biddle, 1986). The team roles literature has identified roles that generalize across many types of teams and contexts, which is useful

for understanding the role composition of teams and how the roles enacted by specific members influence team functioning and performance (Driskell, Driskell, Burke, & Salas, 2017; Mathieu, Tannenbaum, Kukenberger, Donsbach, & Alliger, 2015).

However, team roles are also an emergent phenomenon, such that as team members interact over time, role patterns begin to develop and stabilize (Kozlowski, Gully, Nason, & Smith, 1999). Encapsulating this emergent view of team roles, research has explored whether a system of team roles can adapt to changes in the team's context (LePine, 2003). Including the broader structural team adaptation literature, the dominant approach has been one of understanding how a team's external context drives their ability to structurally adapt and perform (e.g., Johnson et al., 2006; LePine, 2003; Moon et al., 2004).

When understanding role changes in teams, research has approached this from perspectives where the context of the team sparks role shifts. However, the team roles literature has yet to explore how team members may act as their own internal catalyst to role change, acting as an agent of their own role change within their network of team roles. Team development trajectories demonstrate periods where teams tend to fall into norms of certain behaviors (e.g., Tuckman & Jensen, 1977). After team member roles stabilize to serve the purpose of the team, what happens when team members wish to shift their roles? It may be possible that team members drive their own role shift in their teams based on personal perceptions and experiences in their team role. Factors like employee job satisfaction, job engagement, job strain, and role autonomy are potential drivers behind role shifting. On an individual level, these driving factors have been shown to contribute to organizational outcomes like employee turnover (Speer et al.,

2019). Team members may engage in role shifting in various ways. For example, a role shift could embody an expansion or reduction in role responsibilities, gaining access to desired job development opportunities, or leaving the team or organization for a different team member role elsewhere.

The primary purpose of this research was to investigate whether team members of organizationally based teams have desired to or facilitated their own role shift within a team, as well as the potential facilitators and barriers they have experienced carrying out a team role shift. Further, a measure of role shifting was devised based on these findings. Qualitative research methods were used to explore role shifting experiences, their facilitators, and their barriers. To conduct this study, I interviewed organizational team members using a semi-structured interview protocol focused on their team role shifting experiences. Using grounded theory (Charmaz, 2014), the process of role shifting in organizational teams was explored. Further, a subset of the grounded theory about the facilitators of and barriers to role shifting in organizational teams was used to develop an initial scale measure of these concepts. Additionally, preliminary validity evidence for this measure was collected.

## **Roles**

Throughout our lives, we embody different roles: employee, manager, leader, teammate. Roles act as a framework for our behavior, shaping expectations of ourselves and others regarding the social positions we take on (Biddle, 1986; Stewart et al., 2005). Generally, role theory posits that behavioral expectations shape the roles we engage in, often emerging from sources like societal norms, learned behaviors, or formal role assignments (Biddle, 1986). Roles can be formal, where the pattern of behavior expected

from an individual is assigned or prescribed. They can also be informal, where typical patterns of behavior from an individual are shaped by other forces, like interactions with others (1981; 1993). Interacting in line with our roles allows for behavioral clarity, especially when we interact with others, as our role behaviors align with social expectations and shape stable patterns of behavior and interactions with others (Biddle, 1986). Roles can become strong influencers of human behavior for individuals and individuals within groups.

The focus of this dissertation is the experience of individuals who engage in team roles. While individuals may have roles within a group, a team is unique such that members are dependent on one another successfully fulfilling their own role behaviors in order to reach a collective team goal (Baker & Salas, 1997). Thus, team roles can be understood as the particular behaviors characteristic of an individual within the team setting (Stewart, Fulmer, & Barrick, 2005).

A large amount of research on team roles has been dedicated to identifying common types of roles that exist within teams. Foundational work includes that of Bales (1950), who attempted to differentiate group roles by access to resources, control over other people, status (e.g., importance/prestige), and solidarity (e.g., group identification), and that of Belbin (1981; 1993), who identified nine total functional team roles: shaper, implementer, completer/finisher, coordinator, team-worker, resource investigator, plant (problem-solver), monitor/evaluator, and specialist. More recent work on this topic has focused on the psychometric integrity of these classifications. For example, team role measures like the Team Role Test (Mumford, van Iddekinge, Morgeson, & Campion, 2008), TREO (Team Role Experience and Orientation) (Mathieu et al., 2015), and



TRIAD (Tracking Roles In and Across Domains) (Driskell et al., 2017), have been created and supported by validity evidence for the purposes of team role categorization. Driskell and colleagues (2017) most recent TRIAD scale identified 13 distinct team role types, including roles like “Power Seeker” and “Negative” (a member with dysfunctional behaviors). These scales have been important for understanding team member role behavior and team role composition (Driskell et al., 2017).

While capturing enduring role behaviors can be associated with the identification of generally stable patterns of behavior, it must be noted that not all roles are constant. It is possible for roles to evolve or adapt to external pressures (Driskell et al., 2017). For example, contextual demands (e.g., organizational hierarchy, reward structures) of a team may result in role adaptation (e.g., Moon et al., 2004) or a change in broader culture (e.g., organizational values evolve with greater societal values) might instigate change in behavioral expectations of particular roles (e.g., Turner, 1990). Majority of this research has taken an external perspective to role demands that elicit role changes (e.g., Burke, Stangl, Salas, Pierce, & Kendall, 2006; Johnson et al., 2006; Moon et al., 2004). However, this dissertation focuses on role change driven by team members themselves.

### **Team Role Emergence**

When thinking about the concept of roles, it may be easy to view them like heuristics, such that they represent a clear association to characteristic behaviors expected of someone in a particular role (Stewart et al., 2005). Contrary to this thinking, roles are much more fluid and dynamic, especially in the team context. For example, models of team development exemplify a process that occurs over time, from a team’s inception to its disbanding. Tuckman and Jensen (1977) developed a model of team development with

5 stages: forming, norming, storming, performing, and adjourning. Within this process, after the team is formed, a team establishes normal behaviors characteristic of each member, which define expected member role behavior. Other models, like that of Gersick (1989), have taken a more time-focused approach with her model of punctuated equilibrium. This model also viewed team development as a process influenced over time, but it identifies the midpoint of a team's development as a critical turning point in how they ultimately interact with one another.

These particular models helped build a foundation for understanding team development as a process over time. However, a model by Kozlowski and colleagues (1999) has addressed this idea for team roles specifically. Kozlowski and colleagues (1999) theory of team compilation addresses the emergence of team roles. Emergence refers to a dynamic interaction of lower-level phenomena over time, which compile to create a higher-level construct (Grand, Braun, Kuljanin, Kozlowski, & Chao, 2016). In a team, lower-level interactions between members can compile over time to distinguish clear patterns of role behavior for each member. Kozlowski and colleagues (1999) theory of team compilation has four phases: (1) team formation, (2) task compilation, (3) role compilation, and (4) team compilation. The team formation phase represents a period when the team is simply a combination of members who begin to embark on discovering more about each other through initial interpersonal interactions and information-sharing. The second phase, task compilation, characterizes a period of time where each team member focuses on demonstrating their task competencies to the other members. The third phase, role compilation, is critical to understanding the concept of roles as emergent.

Role compilation represents a shift in focus from the individual member to that of dyadic interactions between members (Kozlowski et al., 1999). It consists of two parts: role identification and role routinization. The process of role identification represents the point at which team members begin to approach their role boundaries. For example, team members learn and negotiate which tasks they must complete, when they are expected to do them, and with whom they work in order to accomplish tasks. Further, in this phase, they learn how to pace their activities and how to coordinate with one another to perform their tasks. During this phase, team members also experience role routinization, where they learn how to tailor their interactions to better accommodate team member individual differences when conducting their tasks. Overall, this phase allows for the development of member roles specific to the team, where each member learns their characteristic patterns of behavior and expectations, which stabilize and become part of their timing and coordination sequences as they work together.

The final phase, called team compilation, refers to a more complex, network-like dynamic of team member interaction (Kozlowski et al., 1999). In this phase, the ability to respond to the team environment, such that the team is able to improve their network functioning and properly adapt to their context, is expected to aid in effective team performance. The team can improve its network functioning by properly distributing workload balance, monitoring each other's performance, and detecting any errors made. As the team adapts to novel situations, their success will depend on their ability to use the most appropriate network structure among its members and to maintain proper coordination when carrying out tasks.

A phenomenon important to understanding emergence and multilevel theory is that of entrainment (Kozlowski & Klein, 2000). Entrainment refers to the rhythm, pace, and synchronicity that links processes across different levels of phenomena (Kozlowski & Klein, 2000). In reference to the theory of team compilation (Kozlowski et al., 1999), the emergence of team roles can be viewed through the mechanisms that characterize entrainment. For example, the linkages that form from team formation to task compilation will play a role in the process and outcomes of the following phase, and so on. Thus, the emergence occurring in the role compilation phase will further determine team performance in the team compilation phase. For example, if team role patterns stabilize across members in an ineffective manner (e.g., one team member role experiences taskwork overload), these role dynamics will link to and influence the functionality of the team network during team compilation. Thus, the team may not be properly adapting to changes because they are still operating with an improperly balanced workload in their team network interactions, putting even more role strain on the most overwhelmed team member.

In examples like the one just discussed, the emergent nature of team development, as it progresses through establishing stable roles of team member behavior, can have implications for the experiences of different team members. Role compilation compounds to inform team compilation (Kozlowski et al., 1999). Team compilation results in a network of roles that adapt in response to changing team circumstances, with the emergent processes that informed team development contributing to a team's ability to shift patterns of functioning (Kozlowski et al., 1999).

Team network role adaptation has been researched through the use of external catalysts. However, catalysts internal to the team, like dissatisfaction, burnout, or task overload in one's current role, may also contribute to role shifting. It may be possible for a team member in this situation to act as an internal force in catalyzing role change. More research is needed to understand how a team member who desires to role shift in their organizational team can disrupt their current team network functioning to better serve themselves and the team.

### **Role Shifting**

The concept of role change has been considered in contexts outside of the team. Turner (1990) offers a foundational theory of role change. Turner (1990) asserts that role change is characterized by change in shared expectations and behaviors regarding routine role performance and boundaries. While this theoretical view is broad, examining role embeddedness from an overarching societal or organizational influence, Turner (1990) provides points applicable to the understanding of role shifting in teams. For example, he states that a woman's societal role cannot change without a shift in specifications of a man's societal role. This exemplifies how a role cannot change unless the system in which it is embedded can adapt to said change. This concept is particularly important when considering role shifting in organizational teams, as team member roles can be viewed as embedded within an established team network of interactions (Crawford & Lepine, 2013; Kozlowski et al., 1999). Thus, in order for a role shift to occur for a single team member, the overarching team role system must adjust, as well.

In his theory, Turner (1990) discusses several impetuses to general role change. For example, Turner (1990) highlights forces like changes in cultural values, social

structural support (e.g., increase/decrease in societal role demand), or demographic and technical aspects of society (e.g., need for certain personal characteristics associated with a role). Even with these forces potentially catalyzing role change, Turner (1990) still explicates multiple conditions that can determine the success or failure of a role change. These conditions include factors like client demand, cultural credibility, institutional support, and costs of alternatives to role change.

Most relevant to the current study are the conditions discussed regarding those in roles that are influenced by another team member's role change. These conditions directly relate to the discussion above regarding Kozlowski and colleagues (1999) final stage of team network role adaptation, such that someone seeking to shift their role must also be able to effectively shift the network of roles that adapt in response to their role shifting attempt. Turner (1990) mentions conditions include considerations like costs to the encroached (those who feel someone's role change is infringing on their own role), as well as unity and mobilization of the encroached. These types of conditions act as within-team barriers to role change.

The major tenets of Turner's (1990) theory can be reflected in team-specific theory. As discussed, Turner (1990) provided many conditions that must exist within the context to allow a successful role change. These processes that retain the norm within a team can be linked to the concept of entrainment. The rhythm, pace, and synchronicity of multi-level emergence in team development (Kozlowski & Klein, 2000) can potentially lead to routine conditions that facilitate or block the ability of team members to adapt their roles in response to change.

The conceptual application of Turner's (1990) and Kozlowski and colleagues (1999) theories set a foundation for understanding the potential facilitators and barriers of role change. However, in tandem with recent research on team role change, these perspectives take an external approach to understanding role change within a broader societal, institutional, or team setting. Extending this theory and related research, this dissertation gains a rich understanding of role shifting in the organizational team setting, with a particular emphasis on identifying the internal forces behind role shifting. Thus, the current research was approached using a framework of external and internal catalysts related to team member role shifting.

### *External Catalysts*

Team role adaptation has largely examined external catalysts in relation to their impact on team structure. A team's structure can refer to many factors of a team, like the specific tasks in which they engage, the composition of team members, and the group norms and roles that facilitate team performance (Hackman, 1987).

Johnson and colleague's (2006) theory of team structural adaptation posits that the interaction between the team context and the team's structure can determine its ability to adapt. They found that it was easier for teams who interacted cooperatively to adapt to an external structural change than teams that interacted competitively. This was explained by greater information-sharing among members who began working in cooperative teams. The initial cooperation between these members established a pattern of trust and communication, which facilitated an effective adaptation to a new, competitive reward structure. In competitive teams, the trust and communication needed to switch to cooperation was not yet developed when they needed to adapt to a cooperative reward

structure. This research demonstrated how existing patterns of team member behavior spill over into new team circumstances. It made forming new, successful behaviors between members more difficult.

With a deliberate focus on team roles, LePine (2003) examined how team role structure can influence its adaptability in response to an unexpected change in the team task context, which further informs team effectiveness. Overall, LePine (2003) found a positive relationship between team role structure adaptation and team effectiveness, such that, the better the team was able to adapt their functional behaviors from their previous role routines to match the new task context, the more effectively they worked as a team. Furthermore, LePine (2003) found that the ability for a team to adapt to a communications breakdown mediated the relationship between team composition (e.g., cognitive ability, conscientiousness, openness to experience) and team decision-making performance. Thus, this research demonstrates that role specific adaptation in team structure is also important to team effectiveness and performance.

Like Johnson and colleagues (2006) and LePine (2003), other research has also examined team adaptation specifically in response to external catalysts. For example, Moon and colleagues (2004) examined asymmetric adaptability in teams, looking at how change in organizational structure impacted team interaction and subsequent effectiveness. Another example by Summers, Humphrey, and Ferris (2012) examined how the deliberate replacement of team members in core roles (e.g., roles that have more of an impact on team and task performance) impacts a team's ability to readapt to maintain coordination and team performance.



While the research on team adaptation has focused on the examination of team adaptation in response to external forces on team structure and functioning, there may also be internal catalysts that could facilitate role shifting within a team. Rather than members purely acting in response to external pressures to adapt, it may be possible for a team member to be the catalyst of their own role change within their team network.

While internal catalysts of role shifting have not been explicitly examined within the literature on team roles, research on team member perceptions of role fit can highlight the need to understand team member driven role shifts.

### ***Internal Catalysts***

The importance of team role shifting due to internal catalysts (e.g., experiencing role dissatisfaction or burnout, desiring access to developmental opportunities or more role engagement) can be demonstrated by research on employee role perceptions, which can have implications for both team and organizational effectiveness. DeRue and Morgeson (2007) examined the nature of person-role fit in the context of team development over time. In this instance, person-role fit refers to the match between an individual's personal characteristics and the aspects of their roles within the team. Ultimately, they found that member perceptions of person-role fit changed as the team interacted over time. While a direction for this relationship was not explicitly hypothesized, results showed that person-role fit perceptions tended to decrease over time. This finding could have implications for organizational teams regarding their ability to interact and perform effectively as they continue to work together. Further, DeRue and Morgeson (2007) examined the influences of growth satisfaction in one's role and one's performance on their perceptions of person-role fit over time. They found that those who

were satisfied with their growth had increasingly more congruent perceptions of their team role fit. This relationship was the same for team members who achieved higher performance, such that the congruence of their role perceptions increased over time, as well.

While growth satisfaction and high performance boosted perceived person-role fit in teams, DeRue and Morgeson (2007) found a general trend where this perception became increasingly incongruent over time. Gander and colleagues (2018) found similar results regarding perceived role fit of work team members, such that, for some of the informal team roles they examined, team member job satisfaction was highest when their current team role matched well to what they viewed as their ideal team role. Employee perceptions of satisfaction at work can influence important organizational outcomes like employee turnover and counterproductive work behaviors, as less satisfaction is associated with higher turnover (Speer et al., 2019) and more counterproductive work behaviors (e.g., Dalal et al., 2012). Furthermore, employee perceptions of job satisfaction can be influenced by a number of factors, including job demands (e.g., work overload, emotional demands), job resources (e.g., social support, opportunities to learn, role autonomy, feedback), burnout, job engagement, and justice perceptions (e.g., Bakker & Demerouti, 2017; Colquitt et al., 2001). Thus, it is possible for an organizational team member to experience role dissatisfaction from multiple sources, whether it be through person-role fit or other work experiences, which may affect team and organizational functioning and results.

Instead of team member role dissatisfaction leading to outcomes like turnover or disruptive employee behaviors, dissatisfied team members could enact their own role

shifting within their organizational team. While team members may be able to attempt role change, there may be factors about the team that can facilitate or block an internal catalyst such as this due to the need for the team system to adapt roles as change ensues (e.g., Kozlowski & Klein, 2000: entrainment; Turner, 1990: role encroachment).

Therefore, the mechanisms that facilitate role shifting in teams, particularly when the shift is enacted by an internal catalyst, warrants a deeper understanding to inform potential personal, team, and organizational ramifications resulting from these processes of role change. If team members experience discontent with their role (e.g., perceived lack of role responsibilities, role burnout, lack of growth opportunities), their ability to actually enact a role shift that is accommodated by the entire team could influence critical team and organizational outcomes. For example, team members who experience failure to role shift might engage in negative workplace behaviors that strain team functioning or decide to leave their job, both of which can impact organizational effectiveness and an organization's bottom line (Dalal et al., 2012; Speer et al., 2019).

### **Rationale**

External catalysts of role shifting in teams, like changing organizational hierarchies, team reward structures, and formal team personnel assignments, have received the majority of attention in the team roles literature (e.g., Johnson et al., 2006; LePine, 2003, Moon et al., 2004, Summers et al., 2012). However, there is value in investigating the existence of internal catalysts of role shifting in teams, like the experience of role dissatisfaction or burnout, or the desire to access developmental opportunities or greater role engagement, as well. This is particularly true when considering how dissatisfaction with one's team role can have consequential outcomes

for teams and organizations regarding turnover and counterproductive work behaviors (e.g., Dalal et al., 2012; Speer et al., 2019).

Further, team systems are unique in their interdependence of members who work together to reach a common goal (Marks et al., 2001). Teams are inherently multi-level and temporally dynamic in nature (Grand et al., 2016; Kozlowski & Klein, 2000). As team interactions compile and inform higher-level interactions, teams form patterns of routine role behaviors that become embedded into how they function as a team network (Kozlowski et al., 1999; Kozlowski & Klein, 2000). Thus, the current functioning of a team as determined by its developmental processes can inform how a team engages in change and adaptation. Even when external or internal catalysts are triggered, it is possible that aspects of teamwork and taskwork may facilitate or block the ability of the catalyst to result in successful change. For example, research has demonstrated that the reward structure a team begins with (cooperative v. competitive) can influence their ability to adapt to a new structure effectively (Johnson et al., 2006).

These concepts apply to the embeddedness of team roles specifically, particularly because roles represent routine patterns of team member behavior (Stewart et al., 2005). This dissertation is a first step to gaining a deep understanding of the process of role shifting in teams, with a particular emphasis on the internal catalysts of these shifts. To gain clearer insights into these phenomena, this research investigated if team members indeed act as agents of their own role change in teams, and whether there are common facilitators and barriers behind attempts to engage in team role shifting. This was followed by the initial development of a scale measure which attempts to capture the presence of team role shifting facilitators and barriers within organizational teams.

### **Statement of Research Questions**

**RQI.** How do team members engage in the process of role shifting within their organizational teams?

**RQII.** Why have team members desired to engage in role shifting within their organizational teams?

**RQIII.** Why do team members choose to engage or not to engage in role shifting within their organizational teams?

**RQIV.** What are the facilitators of successful role shifting within one's work team?

**RQV.** What are barriers to successful role shifting within one's work team?

### **Overview of Studies**

This dissertation includes two studies. The first study answers the five research questions posed above through a comprehensive grounded theory approach to understanding role shifting in organizational teams. The second study uses the developed grounded theory to create a scale measure designed to capture potential existing barriers and facilitators in organization teams.

The data captured in each part of this dissertation will focus on project-based teams, which tend to be composed based on the ability of members to serve certain role functions (Hollenbeck et al., 2012). Project-based teams are non-routine in their work and goals, and they can vary in their timelines and team membership based on the needs of the specific project (Hollenbeck et al., 2012). Thus, bounding this research to project-based teams will allow for the development of a theory and scale which provide in-depth information about the phenomenon of role shifting in organizational teams.

### **Study 1**

## **Overview of Study 1**

The first study is qualitative in order to capture a rich, detailed understanding of how team members engage in the team role shifting process, as well as the factors that help to both facilitate or hinder their ability to successfully role shift in their organizational teams.

### **Study 1 Method**

#### **Participants**

A total of 10 participants who currently work on project-based teams across multiple organizations ( $N = 6$ ) and industries ( $N = 5$ ; aerospace, finance, insurance, pharmaceutical, professional services) were interviewed by the researcher. Because this research was approached using grounded theory, the number of participants interviewed was dependent on when the coded data began to triangulate into a coherent, evidence-based theory (Charmaz, 2014). Participants answered questions regarding their team role shifting experiences. Overall, this sample consisted of 70% women and 30% men, and was 60% White/Caucasian, 20% Black/African-American, 10% Asian, and 10% preferred not to disclose their race/ethnicity. The average age of this sample was 28 years ( $SD = 8.15$  years), the average organizational tenure was 3.6 years ( $SD = 4.52$  years), and the average number of teams discussed by each participant was 2 ( $Min = 1$ ,  $Max = 3$ ). See Table 1 below for the demographic information about each participant.

Table 1  
*Participant Information*

<u>ID</u>	<u>Participant Pseudonym</u>	<u>Age</u>	<u>Sex</u>	<u>Race/Ethnicity</u>	<u>Organizational Tenure</u>
1	Debra	25	F	White	3
2	Marie	30	F	Asian	2
3	Evelyn	23	F	Black/African American	1
4	Harold	27	M	Not Disclosed	1
5	Amy	29	F	White	4
6	Sara	26	F	White	4
7	Brian	23	M	White	1
8	Roy	25	M	Black/African American	3
9	Teresa	22	F	White	1
10	Kelly	50	F	White	16

*Note.* M = Male, F = Female

## **Procedure**

In the beginning of the interview, each participant reviewed their rights to informed consent and confirmed that they would like to continue with the interview. Each participant engaged in a one-on-one semi-structured interview with the researcher to gain a holistic understanding of the role shifting process in organizational teams. For example, sample interview questions included “Have you ever attempted to shift [*change something about*] your role? What were the reasons behind [attempting] / [deciding not to attempt] this?” and “Was this attempt to role shift successful? What do you think made this attempt to role change successful and/or unsuccessful?” (see Appendix A for all interview questions). The questions were structured to first identify the teams they

generally work with and how they play roles on those particular teams (“Describe the project teams you currently work on or recently have worked on”; “How would you describe your role on this team?”). Once they had begun to think about a specific role, questions about likes and dislikes of their role were included to help participants bring to mind aspects of the role they enjoy, as well as aspects where they may wish to make changes. This set up was intended to help transition to drawing out more specifics about the role shifting process, like whether they ever tried to shift their role, how they went about doing so, and what the subsequent consequences of their attempts entailed.

To gain a deep understanding of this topic area, a grounded theory approach was used. Grounded theory encourages a process of discovery and verification. Thus, it may be possible that the iterative coding of data may elucidate the need for additional interview questions as the data collection process unfolds (Charmaz, 2014). On average, the interviews took 51 minutes to complete ( $SD = 13$  minutes). Prior to the interview, each participant was asked to provide basic demographic information about themselves (sex, race/ethnicity, age, and organizational tenure). The interview was recorded and then transcribed by the researcher.

For participants to be interviewed, they had to be at least 18 years old and currently work in a project-based organizational team. Participants were located and invited to participate through the researcher’s formal and informal social networking channels and platforms. Specifically, the researcher reached out to potential candidates via posts and messaging through her personal Facebook and Twitter accounts.



## **Grounded Theory Methodology**

To analyze interview content, a grounded theory approach was used (Charmaz, 2014). This process of grounded theory was fueled by a constructivist approach to theory building, which posits a view that reality is relative to the eye of the beholder (Ponterotto, 2005). Thus, constructivism comes with the assumption that multiple realities may exist for the same phenomena (Ponterotto, 2005). Further, a constructivist grounded theory approach views the researcher and respective participants as engaging interactively to construct theory, rather than the researcher acting as an objective player in the research process (Charmaz, 2014).

This grounded theory approach entailed an iterative process of identifying common categories in the interview content (Charmaz, 2014). Initial interviews were conducted, the information of which was coded using a constant comparative method, until there was evidential support of strong triangulation among commonalities, differences, and relations among the coded information (Charmaz, 2014). Then, to ensure a holistic theory was being developed, any areas in need of more in-depth understanding were identified and further questioned in further rounds of interviewing (Charmaz, 2014). The goal of this was to achieve a level of theoretical “saturation”, where coded categories emerging from the data were continuously populated by new interview content collected (Charmaz, 2014). The result of this approach converged into the development of a theory about team role shifting.

## **Materials**

The researcher brought a copy of the semi-structured interview questions (see Appendix A) to each interview session. The interview sessions occurred virtually via

video-conferencing software that enabled recording of the interview (e.g., Zoom). Proper Institutional Review Board permissions were obtained to record each interview session.

### Study 1 Results

Results converged on a clear psychological process behind how and why individuals engage in team role shifting, as well as the factors that facilitate or hinder one's ability to successfully role shift. Thus, all five research questions posed by this dissertation were addressed.

#### The Process of Role Shifting in Organizational Teams

A shared process about *how* team members engage in role shifting within their organizational teams (RQI) emerged across participant interviews of their multiple organizational team experiences. A chart displaying how team members engaged in the role shifting process is shown in Figure 1.

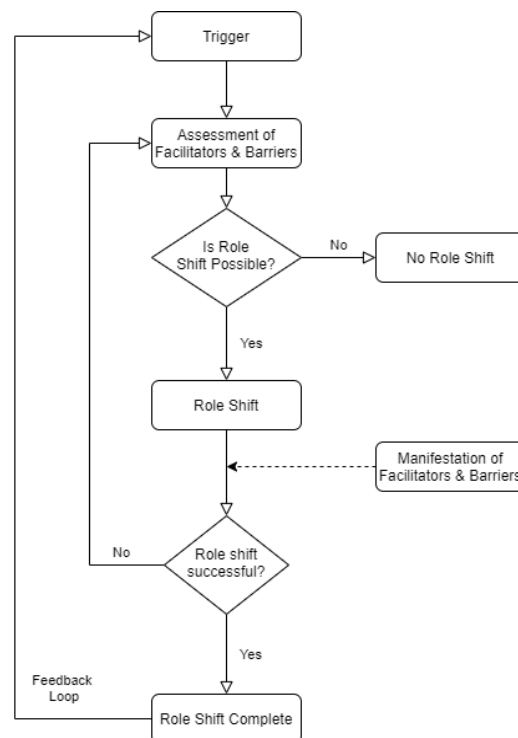


Figure 1. The team role shifting process.

There were 5 major steps that emerged in this process:

1. A trigger event
2. An assessment of barriers and facilitators to team role shifting
3. The attempt to role shift (which can be *influenced* by the occurrence of facilitators/barriers)
4. Evaluation of the role shift
5. Completion or reassessment of the role shift

### ***Step 1***

Before an individual engages in the process of team role shifting, interviews uncovered an initial catalyst to starting this process. There is a “triggering” event that occurs which brings awareness to an individual that they would like to role shift within their team. These trigger events range in content and trajectory across interviewees and the project teams described. They can arise from an external pressure to change one’s role, like a formal appointment, or from becoming aware of an internal desire to make a change. A triggering event can be identified as anything that brings a team member to the realization that they wish to role shift, of which ultimately sparks an individual’s engagement in the team role shifting process. Across all 18 teams discussed during the interviews, this step highlights the desires that individuals experience (RQII), which triggers their intent to role shift. Four major desires emerged as the key triggers for an individual to consider a role shift within their team:

1. A need for role growth and development

Participants discussed wanting to role shift because they were interested in professional growth and development. This included learning new skills and areas of expertise.

For example, Brian (a 23 year-old White male with 1 year of organizational tenure) explained how he intentionally engaged in his own role growth and development on his project team in order to evolve into an “expert.”

You start initially doing very small things, and learning specific processes...and then, kind of further and further along, you go, you start to put the pieces together, which tend to be all in the same process...And then you kind of put that like general idea and become a larger expert in that process. Maybe in reporting, as a specific example, you do like one small piece within that, and then keep adding pieces within that, and then you can kind of like see the broader picture of it all.

## 2. A goal to attain a formal promotion in the future

Participants cited goals for future formal role promotions as a desire behind their attempts to role shift. Some would intentionally take on responsibilities that were reflective of the higher-level roles they wanted to move into. For instance, Debra (A 25 year-old White female with 3 years of organizational tenure) described how she took on specific responsibilities in her role, which eventually led to achieving her goal of being formally appointed as a project manager.

I was brought in as a consultant to manage the data, but I wanted to be in a management position, so I was seeking out opportunities to develop relationships with clients, sending things to the client, speaking up in meetings, and trying to take more of the work off the partner’s plate so they could see I was management potential. And over time throughout this project, it became more formalized that I was the project manager.

## 3. Pressure to change one’s role out of necessity

Participants reflected on the need for someone on their team to step up and take on a role – regardless of whether they wanted to make that specific role shift in their team. This type of driver is characterized by realizing that there is a gap in roles and shifting one’s tasks to accommodate. For example, Evelyn (A 23 year-old Black/African American female with 1 year of organizational tenure) discussed how she had to shift the tasks she was doing on her project team to fill a need, instead of engaging in tasks she was more interested in.

To an extent, it wouldn’t get done if I wasn’t stepping up to do it. There are situations where it is really not an option to take the backseat. I mean, no one ever just takes the backseat on projects, but you know, I usually let my manager manage and I will just roll with the project and stay on top of understanding what needs to come next. However, there are times where something needs to get done and I just have to be available to do it.

## 4. To shift to engaging in more desirable tasks

Participants discussed how they would deliberately shape the tasks expected of them in their role to match what they were most interested in doing. This was characterized by exhibiting control over the team – influencing decisions or creating room for others to absorb one’s less desirable role tasks. For example, Harold (A 27 year-old male with 1 year of organizational tenure) explained how he deliberately shaped his team role away from managing sales, which he disliked, so he could engage in more tasks he enjoyed.

I've pitched things to clients, but it isn't something I enjoy doing. I think my energy and time is better focused in other areas of business. So to change my role in that respect, I brought in someone else who's worked in the industry, has had her own consulting company, and has managed their salesforce. I am working with her to drive our sales and marketing in this space. So instead of me having to manage sales, I can delegate to her so I can focus on things like the content.

### ***Steps 2 & 3***

Once an individual realizes they would like to change their role they begin to assess whether they should attempt their desired role shift within the team (*Step 2*). When figuring out whether it is appropriate to role shift, a specific set of facilitators and barriers converged throughout interviews that individuals considered in their decision to engage in a role shift (RQIII). For Research Question III, which asks about “why” individuals choose to engage or not to engage in role shifting, results from the comparative analysis showed that this decision was driven by weighing whether an individual believed it could be done or not, which was most often based on perceived facilitators or barriers related to the role shift. To clarify, it should be noted that a trigger event can relate to a facilitator/barrier. For example, an employee may realize they want to make a role change due to a poor experience they had with their manager (the trigger event). Then, in the assessment phase, that facilitator/barrier could also determine whether an individual chooses to engage in the role shift. In this example, they may assess that their manager as unsupportive of their desired change, and therefore choose to avoid a role shift. Once a team member has assessed their ability to role shift based on the facilitators and barriers they perceive in their teams, they either engage in role shifting, or choose not to engage in role shifting. For those who perceive the presence of facilitators, they will likely role shift, while those who perceive barriers will likely forgo a role shift.

In the interviews, participants described how they engaged in their attempts to role shift (*Step 3*). When discussing Step 3, this section will specifically focus on one's experience when they encounter facilitators/barriers during their attempt to role shift. In line with the managerial example above, when it comes to the actual role shift, these facilitators/barriers can also manifest as facilitators/barriers to a successful role shift. For instance, the manager could be unsupportive of the role shift and use their managerial power to stop it from occurring.

The results of this section answer the remaining research questions posed in this dissertation. Thus, a total of 10 factors which were subsumed into 4 overarching types of factors, the presence or absence of which can act as a facilitator or barrier to team role shifting, were identified (RQIV, RQV). See Figure 2 for the list of these factors, including a raw count and total percentage of whether a given factor was mentioned at least once across each team discussed. When discussing the examples below, each will be identified as either occurring in Step 2 ("Assessment") or during the attempt to role shift in Step 3 ("Experience"). Based on how participants discussed their experiences in the interview, some exemplary quotes below may simultaneously reference aspects of both "Assessment" and "Experience", which will be labelled next to each example.

1. Leader Permission/Support

Many participants shared how leadership played a key role in their decisions to role shift and whether leadership enabled a successful role shift. As participants described their process behind deciding to role shift, they often discussed how they needed to perceive or feel like their leader had granted them permission to make a role change. These views were based on how a leader typically behaved, like being vocal about

providing participants development opportunities or having conversations with the participant where the leader communicated that team members should be open about their thoughts and feelings. During the interviews, participants also mentioned how leader permission and support influenced the outcome of their actual attempts to role shift. In facilitative instances, participants reported that their leadership worked to provide them opportunities to engage in new work they were interested in, gave them permission to make their own role decisions, or played an active role in helping individuals reach their role shifting goals. For example, [Experience] Roy (A 25 year-old Black/African American male with 3 years of organizational tenure) described how he viewed leader permission/support as a facilitator to role shifting. Specifically, Roy shared how his manager went out of their way to ensure that Roy was being pushed in his thinking to facilitate his role development. With Roy's future goal to become a manager at his firm, his own manager made it a point to help him develop these higher-level managerial skills.

So, what has been useful in my development? What I find valuable is being pushed in my thinking. There are a handful of folks who will challenge my approach or challenge me to go deeper, go harder, or explain, or validate in several places. I've come up with an idea or I've said "Hey I'm stuck" and rather than solving the problem for me, they [my managers] have been like "Alright, let's talk about this. What do you want? What's the outcome? What's the objective? What's the goal?" It is more explaining and not doing it in a way that is patronizing.

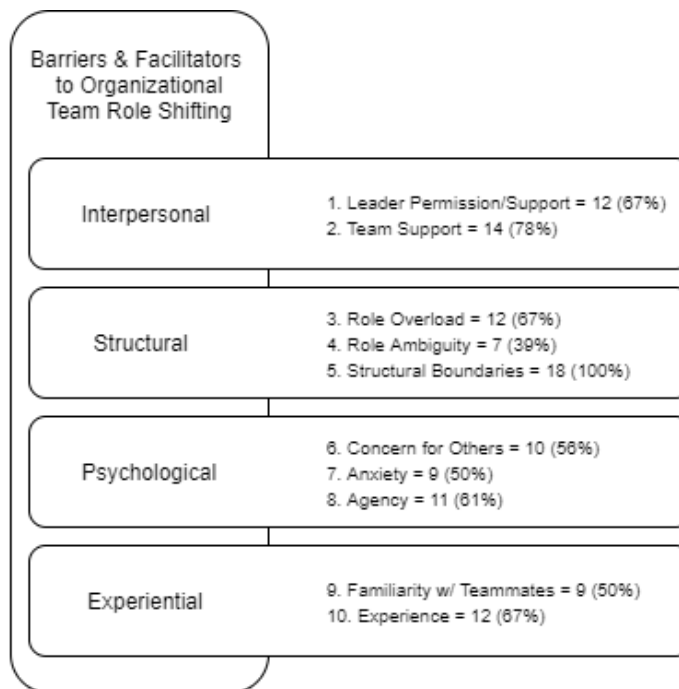
In negative instances where participants discussed leaders as barriers, leaders tended to be perceived as rude and cold toward participants. Further, in some instances when a leader learned of an individual's desire to change roles, participants reported that they perceived their leader as acting to directly block their opportunity to role shift. For example, [Assessment / Experience] Teresa (A 22 year-old White female with 1 year of organizational tenure) discussed how her boss did not approve of her desired role shift on her project team. Teresa explained that she was on a poorly managed project team that resulted in her taking on multiple new tasks to compensate for the lack of management

from the appointed project manager. She noted that her boss was someone she greatly admired and trusted, which led her to attempt a role change to replace the current project manager (this boss is the supervisor of Teresa and the problematic project manager). However, when bringing up this issue to her boss, she said that he quickly blocked any attempt for her to take over as the project manager, which was desired by her and her team so they could work more efficiently.

So, my boss is the kind of person who believes in forcing people into embracing leadership roles...While I agree with him that in some cases that is appropriate, I do not agree that in this case it is. So he thinks that by everyone hating our project manager, that our project manager will learn that he's not being good in his role, and get better. But it's been 8 weeks now and that hasn't happened yet...I actually had an hour long conversation with my boss about this yesterday and he was like "Well what would you do if you were the project manager right now?" and I explained what I would do. And he said "Is the current project manager going to do these things?" and I was like "No, he's not." And my boss was like "Yeah, that's just not the kind of person he is. He's got a different personality from you." and I was like, "Um...what was the point of this exercise? Because clearly you now see that I would do something he won't."

Overall, the theme of leader permission/support as a determinant to successful role shifting was characterized by the degree of leadership support someone perceived or experienced when they engaged in the process of team role shifting. It stemmed from the interactions that one's leader had on whether someone perceived they had permission and support from their leader to make a change. Facilitators included leaders seeking out opportunities for development, providing mentorship, and having positive rapport and open dialogue with their subordinates about their role desires, which participants associate with positive perceptions of leader permission and support and opportunity to role shift. Barriers included leaders who were viewed by participants as closed-minded to new role changes or as having failed to cultivate a psychologically safe team environment, which dissuaded participants from attempting to role shift or hindered their ability to achieve their role shift.





*Figure 2.* The facilitators of and barriers to attempting and/or experiencing team role shifting. This figure includes the percentage of the 18 total team instances given the facilitator/barrier was noted in interviews.

## 2. Team Support

Participants also shared how their team members influenced their decisions and actions to role shift. When participants discussed their role shifting process, perceptions that their team members supported their personal desire to change or perceptions that there was room for team members to accommodate a desired change influenced whether a participant believed they could attain their desired role shift. Many of these views were rooted in the behaviors of fellow team members, like verbally expressed support or encouragement in response to one's role desires or one's teammate engaging in supportive team back-up behaviors (of which signaled opportunity to make desired role shifts). For example, [Assessment] Teresa (A 22 year-old White female with 1 year of organizational tenure) shared how her teammates empowered her to try to go after the team role she deserved. Aside from initially viewing her boss as a potential supporter of

her attempt to role shift (which did not end up being the case during her attempt), Teresa also assessed the support from her teammates about her desire to role change by testing their sentiments about the current project manager. It resulted in her becoming aware of strong support from her teammates about her desire to replace the current project manager.

I got closer and closer to my teammate and mentioned to him this one time that I was frustrated. And he was like - let me tell you! And he just went on this whole rant for an hour about the fact that him and everyone else on our team talk about how I do everything and the project manager doesn't do anything...I started low-key bringing it up to people I work with...and every single person I talked to, it was like, "Yeah no like you do everything"...and then people kind of started like gaslighting me a little bit - like urging me to make a stand. They were like - "We will all support you, say something."

Further, participants also discussed how the actions of their teammates directly played into the success of their attempted role shift. They reported that their teammates took an active role in helping them work toward their desired role shifts. In some instances, participants described how their teammate(s) would directly engage in peer mentoring/coaching with them. For example, [Experience] Evelyn (A 23 year-old Black/African American female with 1 year of organizational tenure) explained her experience with a teammate invested in her role development. Evelyn hoped to grow into a more senior role at her firm. A teammate who was close to Evelyn took the time to bring her through how to structure a particular deliverable in a more tailored manner. She intentionally took these skills she learned from her teammate and applied them to other projects as part of her journey to evolve to more higher-level tasks in her role.

So I actually created a deck that was kind of a combination of both of those pieces of the process. And, in terms of like, the analyses and my findings, everything was great. But academia writing is a little bit different than consulting writing. So literally, my teammate sat me down and in real time, we went through almost every bullet, some of the graphics, and even just aesthetically how we want to come across to our clients. Yeah so there is that...I'm using some of the takeaways that I had...I was like, doing some higher-level work I would say.

The theme of team support as a facilitator/barrier to team role shifting was characterized by the degree of support someone perceived or received from their fellow teammates when they engaged in the process of team role shifting. This theme was based on the interactions that one's team members can have on whether participants perceived permission and support from their leader to make a change. Facilitators included teammates engaging in teaching/mentoring of an individual or verbally expressing support for their desired change. Barriers included teammates unwillingness to accommodate an individual's attempt to role shift or perceived competition for roles with a teammate(s).

### 3. Role Overload

Participants discussed how their perceived or experienced role overload contributed to their decision to role shift and whether their experienced role overload was a determinant of successful role shifting. When participants described their decision-making process, they tended to report how their perceptions of role overload influenced whether they viewed a role shift as feasible. If they perceived that the work demands of their role were overwhelming, it resulted in the view that their role did not warrant enough room to make a desired role shift. For this theme, participants heavily weighted this facilitator/barrier during their decision-making as opposed to describing role overload as a direct facilitator/barrier during a role shift. For example, [Assessment] Amy (A 29 year-old White female with 4 years of organizational tenure) spoke about how the nature of her team role resulted in an overwhelming amount of work. Amy made no intentional attempts to make desired changes to her role. While she would have liked for her role to shift from more detail-oriented work to higher-level strategy work, she was

consistently straddling the line between these types of tasks in her current role. Her perception of role overload dissuaded her from an attempt to role shift.

If I could change my role at all, it would just be less of like lower deep-level detailed execution because I think that would just give me more time to think creatively about ideation and the stuff we need to do next. But sometimes I'm so bogged down in, like, "we have a meeting", and then for tomorrow "we just need to get this done." And I can't, I can't - I don't have the space and mindshare to, like, grow and think about what needs to come next.

Participants also viewed their heavy role overload as a factor leading to their feelings of burnout. For example, [Assessment] Marie (A 30 year-old Asian female with 2 years of organizational tenure) explained why it was difficult addressing role overload on her team. Her team had a norm that overworking is not only acceptable but expected. While Marie admitted she was burnt out and wanted to change her role so she had less of a task overload, she believed that her attempt to change it would not be well-received. Thus, she never attempted to make this type of role shift on her team.

When I complain about having to do 12 hours of work a day then they're like, "that's not too much." If you have time to go out for dinner, 12 hours shouldn't be that much...Like, I used to, like, not mind it, but now I feel burned out and like I don't want to do it anymore. What's the point? Like, you know, I just want to be like, less stressed. So then I think there's a missed connection between that, that sort of, me changing my perspective of, towards my work ethic and people's expectations...So I don't think that I've ever really took some time to really like put this into a serious tone - say "stop giving me so much work, otherwise, I quit." You know what I mean? I would appreciate it if I didn't have to work that much, but I don't think they'd appreciate my comments.

Overall, the theme of role overload was an influential facilitator/barrier in the role shifting process. It occurred when an individual perceived or experienced an overwhelming amount of work in their role. According to participants, perceiving/having a lighter workload left more room for them to enact role shifts like taking on new or more desirable tasks, while perceiving/having a heavy workload did not leave capacity to make a desired role shift, like finding time to develop a particular skill or engage in a specific task. The degree of workload one perceived or experienced played a role in whether a participant engaged in role shifting or successfully achieved their desired role shift.

#### 4. Role Ambiguity

During the interviews, participants discussed how clarity about their demands and priorities of their team role influenced whether they perceived their desired role shift as attainable. They also reported instances where the degree of role ambiguity they experienced influenced how they approached their attempts to role shift. When participants described this theme, it seemed to be driven by an interest in gaining more clarity about one's role tasks, demands, or priorities, or by an interest in shifting the actual focus of their role to be more desirable. One example of how role ambiguity shaped one's decision to role shift and to act on it was described by [Assessment/Experience] Harold (A 27 year-old male with 1 year of organizational tenure), who shared his experience with working in a broad, less-defined team role. Harold's experience of role ambiguity, where he performed many different tasks depending on the needs of his particular project team, was able to conclude what types of work he liked and disliked. Having this clear idea in his head, he attempted to role shift, narrowing his responsibilities by hiring other individuals to who he could delegate specific tasks.

Because you have your hands in so many different things, you never get a break, and it's kind of hard to focus on one thing for a longer period of time. Whereas before it was like, I would work on a training workshop. And it was like, okay I know what I'm doing. I know what I need to do, and there's clarity around it. And now it's like every day I don't know what's going to happen. So it's like, there's uncertainty with what's going on - I don't know what the client's going to send me, I don't know what they're going to ask for. I don't know what's gonna happen in the environment that I'm out here with, like we work with a lot of sales teams. And they were going back into the field recently and now they're coming back out of the field. And that affects what we do, because that affects our timeline for initiatives and engagements with them.

Another aspect of role ambiguity specifically came into play during attempts to role shift. In some instances, participants viewed role clarity as a vehicle to progress toward their overall goal, whereby more role clarity would aid them in achieving a more

successful role shift. For example, [Experience] Kelly (A 50 year-old White female with 16 years of organizational tenure) described how her team role boundaries varied within team decision-making, whereby she sought out role clarity in order to gain more influence over team decisions. As an external project consultant hired for her industry expertise, Kelly found herself in team roles where her expectations and influence over key decisions changed and were sometimes determined in the middle of teaming. On this project team, Kelly's goal was to be in a role that had strong influence over team decisions; however, since she was an external consultant to the team she was working on, this team asked for her to step back so they could discuss an "internal" decision about the direction of the project. This experience hindered Kelly from having the influence she desired and was currently attempting to have over team decision-making. She had to accept relinquishing the influence she had gained in the team's decision-making process.

You have to be able to, you know, and it's difficult because you're both an integral part of the team, but you're not. And that's another thing is like not taking things personally, when they're like, "okay, we need to discuss this internally." Well, realizing, well this has nothing to do with me, this has to do with what they have to deal with internally.

The theme of role ambiguity was an influential facilitator/barrier behind if someone role shifted and how successful they were in their shift. It occurred when an individual perceived or experienced ambiguity (or lack thereof) in what their tasks and expectations were on a specific team. When participants perceived role ambiguity, they tended to desire a need for a clearer role definition so they could do other types of work (develop specific areas, engage in more interesting work, etc.), like engaging in role shifting to better focus their role (i.e., key tasks, decision rights).

## 5. Structural Boundaries

Many participants shared how the structural elements of their teams created perceived and experienced boundaries regarding role shifting. They shared how consideration of these boundaries played a key role in their decisions to role shift, and in some instances, how these boundaries acted as facilitating or hindering forces during role shifting. Generally, participants mentioned that they viewed the size of the team, the type of hierarchy of the team, and the appointed roles of the team to be integral in their considerations of and experiences with team role shifting. For example, [Assessment] Debra (A 25 year-old White female with 3 years of organizational tenure) shared how the size, hierarchy, and role assignments of her team took away any perceived room to take on developmental role opportunities toward her goal to become a manager. This team was larger in size and had a strict hierarchy of roles, where she was at the bottom of the hierarchy. While she wanted to take on higher-level tasks toward her goal to be more managerial in her project roles, she perceived no space to do so on this team, as there were more people on it, and some of these people were already appointed the manager role on this team. Thus, Debra made no attempt to role shift on this project team.

Yeah, then I think I need to have a team that has a structure that enables some sort of room to move in the role. My current project with the five people, there's really not much room for me, or at least in my current purview, I can't really see room for that [role shifting]. Whereas in the other project I'm on, there was a lot of room for that [role shifting], and it was very evident to me. And so I was able to go for it there.

Debra strongly perceived structural boundaries on her project team that prevented her from attempting to role shift. However, participants also described instances where the structural boundaries of the team were more fluid and flexible in nature, which made possible role shifts seem attainable as well as easier to attain during actual attempts to make a shift. As an example, [Assessment/Experience] Evelyn (A 23 year-old Black/African American female with 1 year of organizational tenure) described how her

team's structure helped her to pursue role interests. Working on a small project team gave Evelyn the impression that she could easily make role shifts to engage in tasks typical of higher-level roles she was striving for in her firm. She felt like the roles on this small team were more fluid and that she could easily take on the tasks that she wanted to focus on. The flexible nature of this small team enabled Evelyn to take on tasks she most desired on this project.

It's pretty fluid in terms of whose role is where - because right now my one teammate is almost non-existent. He's just completely out of the work we're doing. So he's with the client and helping to conduct these conversations about people's development while we're doing the data. And I don't think I have expertise to help with that quite yet. So I almost feel like this is a benefit because the team is small. I don't really feel like I need to ask to do certain things or to take on a certain role. Like if it's something I want, I just do it...so, I actually think that's the benefit to having a smaller project is that I kind of just "do".

Overall, the theme of structural boundaries were physical aspects of the team structure that acted as either facilitators/barriers to assessing or successfully role shifting. When considering how this theme manifested as facilitators of and barriers to role shifting, participants largely described how team size and/or hierarchy played a role in whether there was enough flexibility on the team to engage in desired role shifting. Generally, larger teams with more rigid hierarchy and roles contributed to perceptions that making a desired role shift was more difficult, while smaller, more flexible team structures were viewed as contributing toward the facilitation of successful role shifting.

#### 6. Concern for Others

Participants discussed how their consideration, or concern, for their fellow teammates, clients, or other individuals associated with their team, contributed to their decision to role shift and whether their concern for others while attempting to role shift played a determining factor in their perceived success. When participants described their decision-making process, they tended to report how their perceptions of others –



particularly a view that they may be impeding on the role or feelings of another teammate by attempting to role shift - influenced whether they viewed a role shift as feasible. If they perceived that they believed that their role shift may create inconvenience or hard feelings for their fellow teammates, it resulted in their determination that they should not make a role shift to avoid creating issues with their teammates. For this theme, participants heavily weighted this facilitator/barrier during their decision-making, as opposed to their concerns acting as direct influences on the success of an attempted role shift. For example, [Assessment] Sara (A 26 year-old White female with 4 years of organizational tenure) explained how she stepped up into a role she did not want for the sake of others. Sara was placed on a project team where it quickly became apparent that no one was willing, and in some cases able, to take on the project's lead role. Sara strongly disliked being in leadership roles, but since she knew that this project had to be delivered well and that she was a team member who had experienced this type of work before, she stepped up and took on the role, both to spare her teammates and to ensure that the team maintained good rapport with the client. She did succeed in maintaining the client relationship, as they ended up being recognized as the team with the best project presentation.

Well the project had to get done. We were presenting to people that I knew well, and that I knew they would express their disappointment if our project wasn't up to their standards. I hate disappointing people and I hate, like, feeling that we didn't accomplish as much as we could have. So I also don't like making people do things they don't want to necessarily. I like everyone to feel comfortable. And I could tell people were uncomfortable taking a role. So I knew it was a temporary project, it wasn't going to be something that was recurring year after year. Yeah, I was like, I'll suck it up and do it because it's temporary and I want it done a certain way.

While Sara decided to give up her desired tactical role to take on the less desired lead role on her team in order to please her clients, other participants decided to forgo a desired role shift because they were concerned that they might frustrate their teammates.

For example, [Assessment] Harold (A 27 year-old male with 1 year of organizational tenure) discussed how he avoided making a role shift due to concern for others feeling their role would be violated. Harold had a desire to change the way he worked together with this team, which resulted in process inefficiencies he disliked. However, due to this being his first interaction with this project team, he reported he was concerned that attempting to make this type of shift would be perceived as “stepping on toes”, particularly when it came to determining how the team was to function most effectively. Thus, he decided not to attempt this shift.

I don't want to step on any toes. And yeah, I think part of it other than being psychological and not wanting to step on toes - It was just me not feeling comfortable yet. And yeah, for the reasons I described, but also just because I just, for whatever reason, I don't think I felt like I needed to do that or like I wanted to do that at the time.

The theme of concern for others manifested in the role shifting process mainly as a perceived facilitator/barrier. This theme was characterized by one's concern that engaging in or following through with a desired role shift would adversely impact a teammate, client, or other individual who interacted with the project team. Many participants noted that they would not attempt a role shift if they felt like their change would frustrate a teammate or if the change would negatively impact a team or client relationship.

## 7. Anxiety

Many participants shared how their feelings of anxiety about their desired role change played an influential role in their decision to role shift and whether they experienced successful role shifting attempts. When participants shared how they decided whether to engage in a role shift, they tended to report how their feelings of anxiety deterred them from making a desired role shift, or even from continuing to engage in an

attempted role shift. Many participants noted how the presence of anxiety about the role shift acted as a strong determinant in their decision-making process. For example, [Assessment] Marie (A 30 year-old Asian female with 2 years of organizational tenure) explained why she avoided addressing the burnout she experienced in her role, part of which she attributed to stress. She explained that about half the time, she experienced stress in her role to the point where she did not feel she could attempt her desired role shift.

If I were more serious or very upset about it, I think I would take more serious actions of like, going to see other people to really make sure to that my voice was heard. I think I am 50%-50%. I'm like, I don't mind it. Fine, I'll do it because I don't want to give up on my work ethic or their expectations. You know, I'm pretty ambitious and I also want to do well, so I don't want to disappoint, like, let them down. But also 50% of the time, I'm just too stressed like, I just don't want to do it.

While most participants noted their presence of anxiety when assessing the feasibility of a role shift, some also experienced feelings of anxiety during their attempts to role shift, as well. For example, [Assessment/Experience] Sara (A 26 year-old White female with 4 years of organizational tenure) explained how she developed a fear of asking questions that resulted as a barrier to improving in her team role. Sara wanted to be become highly skilled and independent in her current team role. However, she consistently had experiences with a teammate that led her to become anxious about her attempts to develop into more of an expert. This teammate was one of the few individuals who knew her work well, but when she asked this person questions, they were hostile toward her. She decided to stop asking this teammate questions, ultimately stunting her attempt to become better in her role, because interacting with this individual made her feel an uncomfortable level of anxiety.

I did not feel comfortable asking questions. When I would ask a question, I felt that I was being looked down upon that I didn't know the answer myself. But I was only in my role for a year and a half at the time and I didn't know the answer to the question. I had to ask the question to be able

to do my work, but I didn't feel like the question was being well received. I felt like I was getting hostility and frustration from my teammate. So that made me uncomfortable and not really enjoying my day to day work because I grew fearful of asking questions because I didn't want to deal with this person. But then I'd have holes in my analysis because I didn't ask the question, and then something was wrong with what I'd done.

Overall, the theme of anxiety acted as a perceived or experienced facilitator/barrier to role shifting through awareness of that one was feeling anxiety (e.g., feelings of stress, fear) associated with their desired role shift. When discussing anxiety as a facilitator or barrier, participants described how particular aspects about the team or one's work would reduce or induce anxiety about the role shift, which in turn determined whether a role shift attempt was worth their effort.

#### 8. Agency

Participants discussed how they believed their own actions played a strong role in whether they could role shift and whether their role shift was successful. As participants described engaging in the role shifting process, many highlighted the importance of depending on themselves as active facilitators in their process to achieve a successful role shift. When discussing this theme, it was common for participants to discuss the value they place in acting as their own agent toward role shifting, followed by describing the direct actions they took during role shifting to be their own agents of change. The theme of agency was unique in that the participants who discussed agency as a motivator to pursue role shifting (which affected their decision to role shift), also discussed their conscious attempts to behave in independent and agentic ways as they attempted their desired role shifts. For example, [Assessment/Experience] Roy (A 25 year-old Black/African American male with 3 years of organizational tenure) explained how he took it upon himself to further develop his skills. During the interview, Roy expressed his strong belief in agency by describing how the onus of his role shifting is partially

attributed to his own actions. In Roy's pursuit to become more managerial in his role through better developing his ability to probe other teammates about their thoughts, he described how he specifically used himself as an agent to push this shift by requiring himself to think deeply about the project approach and to challenge his teammates to do so, as well.

And then the other thing I found myself doing more is thinking about the alternatives when you know somebody put out their own idea and sometimes you can be, I think it's a tendency to like, assume the idea is right. And like the correct way of challenging the approach - the questions are trying to say, "okay, but what happens if we go down here?" Not to be combative, but to really understand the effect on the project, and the impact we're making. And so I've had a few moments where I'm like, "Okay I agree with you, but are you also thinking about this? And what's the occasion for that?" And that level of critical thinking is proven to have an impact.

Similarly, this idea of agency influencing the assessment of role shifting and the attempt to role shift manifested in another example from [Assessment/Experience] Brian (A 23 year-old White male with 1 year of organizational tenure), who described how development in his role was dependent on his own initiative. With Brian's goal to become an expert in his role, he expressed that his initiative toward developing his expertise played a key role in achieving this desire. Brian intentionally had discussions with his more knowledgeable peers and carefully structured his discussions to focus on key aspects where he wanted to improve.

So I think it's more of - you have to take your own initiative to like, to help with the improvement itself. It's directed on the individual rather than facilitated by the company...I guess it's just kind of like a constant discussion with the people you work with. And like, one-on-one, if you go to the manager specifically...and like quarterly check-ins and spend the time yourself to make sure that you get the information out of it. And like, I will structure the conversation in a way that I think will help me improve.

The theme of agency acted as a determinant to successful role shifting was driven by the perception that if one was to achieve a desired role shift, it was their own responsibility to achieve it. Participants discussed agency as a perception that motivated

them to ultimately engage in role shifting, recognizing that they needed to take deliberate actions to achieve a successful role shift.

#### 9. Familiarity with Teammates

Many participants shared how their feelings of familiarity toward their teammates played a key role in their decision to role shift and the success of their role shift. As participants discussed their decision-making process, they often described how their feelings of familiarity toward their teammates aided in their decision to engage in role shifting because it made them feel comfortable with their teammates and like they understood their teammates well enough to accurately assess the potential success of their desired role shift. Similar to the theme of agency, familiarity with one's teammates was a perceived facilitator in the decision to role shift, as well as a perceived direct facilitator in attempts to role shift. For instance, [Assessment/Experience] Marie (A 30 year-old Asian female with 2 years of organizational tenure) discussed how familiarity with her team added to her role development. Marie's role shifting involved a series of steps to become viewed by others as an expert in her team role. She described how knowing her teammates well made communication with her team easier, as she knew how to best approach certain members and which team members were the best knowledge resources for her to consult to further develop pieces of her expertise.

In terms of like working with others, I think it's gotten easier. Like I know how to communicate with certain people because I'm familiar with my teammates. So like, for certain people, I know how to approach them or who to go to and stuff like that, so it's definitely gotten easier to learn quickly, like the learning curve or like learning speed has definitely been better or faster.

Interestingly, feelings of familiarity toward one's teammates appeared to hedge some of the anxiety that one could potentially feel when considering to engage in role shifts. For example, [Assessment/Experience] Roy (A 25 year-old Black/African

American male with 3 years of organizational tenure) explained how familiarity with his teammates provided him more comfort in bringing up uncomfortable conversations. Roy explained that he has been at his firm long enough to be familiar with how his teammates operate. His familiarity brought enough comfort that when he saw issues that occurred in how he was treated or assigned tasks, he had strong enough rapport with his manager to give them constructive feedback toward a more desired outcome.

And it's interesting that we're talking because I'm at the point where I've been here long enough. And so if anything, like anything from a structure standpoint, or, like if I was uncomfortable because of some kind of unconscious treatment, or microaggressions, or anything like that, I'm at that point in my career, and I've built up the firm where I can just call it out and get it out of the way...I have no problem calling my manager and saying "here's some feedback for you, because I didn't appreciate how this happened."

Overall, the theme of familiarity with teammates emerged as a facilitator/barrier of team role shifting through the degree of familiarity that one believed they had with their teammates. As a facilitator, participants viewed familiarity with their teammates as enabling them to create greater comfort and openness about one's desires with fellow team members. Participants reported how becoming more familiar with their team members over time helped them be more communicative about their role shifting desires.

#### 10. Experience

Participants shared how they viewed experience in their team role as influential in their decisions to role shift as well as the success of their role shift. When discussing the role shifting process, participants often relied on their perceived team role experience to guide their decisions to role shift. When described by participants, more experience in one's team role was generally preferred. Participants reported that the accrual of expertise made it easier for them to learn and more quickly work toward desired role shifts, which resulted in perceptions that they had more room to invest in potential changes in their role. For example, [Experience] Kelly (A 50 year-old White female with 16 years of

organizational tenure) explained how deep expertise in her role allowed her to influence team decisions. With 16 years of tenure in her specific role, Kelly leveraged her experience to become a strong “influence manager” on her project team. She strategically shared her expertise to gain more influence over team decisions to ensure they were optimal and ethical.

Yeah, just more in terms of influence, you know? So, we were actually successful during some of the review, where we were advocating that there's a certain population we've identified that shouldn't be included in the product use, just because they won't benefit. And the partner company was reluctant to, you know, kind of making, bringing the information and making the case to the board. And through a lot of lobbying and negotiation and leveraging external experts, we were able to get them to agree. So it's really influence management versus a power.

In instances where individuals had less experience in their team role, participants described that they felt they were not prepared for a role shift or that they were still overwhelmed in their role since they were still getting comfortable in it. For example, [Assessment] Debra (A 25 year-old White female with 3 years of organizational tenure) described how inexperience with working in the role she eventually wanted made it harder to pursue. In her pursuit to become more managerial in her role, her lack of experience in a manager-type role led her to waver on when and how to engage in role shifting attempts.

So this was my first time in my current role. Um, so it was a battle between not knowing what I didn't know, but like wanting to figure it out kind of thing. So anything I did, it was just kind of like, this is my best guess because I haven't done this before. If I had managed a project before I probably would have been more comfortable and pushed harder on it. But because I didn't really have the background in that role yet at my firm, it made it a little bit more difficult to read the signs of when I should and shouldn't do things and if it makes sense to try to take on that role and so forth.

The theme of experience manifested as an influential facilitator/barrier to successful role shifting, which was based on the degree of experience an individual had in their team role. Participants discussed how their level of experience in a team role made a desired role shift seem more or less feasible when assessing their ability to role



shift, as well as making the role shift more or less successful. Participants often described more experience in one's team role as associated with greater perceptions that a role shift was feasible and that one's attempts to role shift were successful.

### ***Steps 3, 4 & 5***

While Step 3 was part of the section above, it was specifically to address how individuals could experience facilitators/barriers during their role shift. In this section, Step 3 will be demonstrated by providing examples of how participants actually *attempted* to role shift. For participants who described teams where they role shifted, participants evaluated whether their attempt to role shift was successful (*Step 4*). After this evaluation, they either completed their role shift, or they reassessed the role shift (*Step 5*).

Kelly (A 50 year-old White female with 16 years of organizational tenure) explained how she attempted to gain more influence over team decisions than her role currently provided room for (Step 3). She did so by attempting to clearly define what the team needed to do, followed by placing explicit accountability on her teammates to deliver it.

...What I just tried to do was put ownership back to them. So after a meeting, I would say, "Okay, here's the thing we agreed on." And then I would write, like, a little summary, you know, bullet point, minutes, sending it back. And then, like, "Okay, here's what you have to go do, because I can't do this for you," you know? And so I just try to put more accountability on them to move forward."

Marie (A 30 year-old Asian female with 2 years of organizational tenure) shared how she engaged in attempts to shift her role into one where she is considered an expert (Step 3). While Marie did not consider herself a fully formed expert, she successfully achieved specific expertise milestones, where she successfully role shifted, and then role shifted again to build further momentum toward her goal to be an expert in her role.

I think that's the process I'm taking to become an expert. I think training people about what you know really helps, because it makes you realize that you know more than you thought you did. And also you can also realize like, oh, what you left off because they questioned me on something that you didn't know previously and you thought it was obvious or something, you know. So working with others and training other people - it's another step to go against one of the steps to become an expert.

Roy (A 25 year-old Black/African American male with 3 years of organizational tenure), in his pursuit to become more managerial in his role, discussed why he viewed his

attempt to role shift as successful (Step 4). Part of his evaluation depended on how others viewed him in his role, and whether he was receiving feedback to support that he was role shifting in the manner he intended.

They're [my actions in this role] successful, because we're a team. And we're a firm, our culture is built on giving feedback. And so if I was not performing, at least at expectation levels, I'd know. And given the manager in particular, he'd tell me if you're not meeting expectations. And so because I haven't received that, but I've also received like, "Okay, you showed up really well" or the fact they're validating my approach, in many cases, also signals to me that what I'm doing is working.

Teresa (A 22 year-old White female with 1 year of organizational tenure) described how she felt as a result of a failed attempt to role shift (Step 4). Teresa's boss explicitly denied her request to make a desired role shift to take over as her team's project manager.

So yeah, I'm less disappointed in the actual lack of movement of position on my team. Like, that was never super important to me – it was more about removing the inefficiency, and like, restoring sanity to my team members...Everyone's going crazy about this because we don't have clear leadership, which makes it harder to understand the task being assigned to you, which makes it harder to understand your deliverables, which then leads to oversight...So I've just had more and more and more work. I think I'm up to 47 hours this week on this project already, which is absolutely inconceivable and shouldn't be happening.

Brian (A 23 year-old White male with 1 year of organizational tenure) discussed how his role shifting process is gradual, where he makes small role shifting attempts over time (Step 5). Once he achieved a specific role shift toward becoming an expert, he considered the next opportunities toward his goal.

It's kind of like a yes and no, I guess like, there's never been this big like, "Oh, I want to like completely change the position I'm in", yeah, however, it's more of like a daily, like, I want to get more involved in like, certain solid aspects of work. Mostly, because I think a lot of what our job is is very knowledge-based, and that it takes a long time to kind of get it from a big picture perspective. And so there's so many small steps in the process. The more you're exposed to each step individually, and the more you can, like, get in those – And at least for me, the better I can kind of see it as a whole.

Harold (A 27 year-old male with 1 year of organizational tenure) discussed what he viewed as future role shifting goals after a successful initial role shift (Step 5). While not acting on it explicitly at this time, Harold began to assess what his next role shift would be, ideally, by finding new ways to achieve balance in his role tasks.

I think it's [my role] going well, it is challenging as well. Because while you have a lot of people who are empowered to do what they're doing, and to run things, I think I still need to find balance. Because I will get calls all day from people...People on the team call me and are like "Hey, I had this idea and they'll talk to me for 15-20 minutes. And it's like, I'm in the middle of working on something and now you called me and now I'm distracted and I can't finish what I'm doing.

## Study 1 Discussion

This first study resulted in a comprehensive theory of team role shifting. Within this theory emerged five key stages that employees take during the process of role shifting. The emergence of this process addressed Research Question I, which sought to understand how team members engage in the process of role shifting within their organization teams. Employees begin to think about role shifting based on a triggering event (Step 1), which can manifest as a variety of events that trigger a perception that one's role requires a shift within their organizational team. Based on the iterative, comparative analysis of interview content, four major trigger events emerged: (1) A need to grow and develop, (2) to obtain a future promotion, (3) to shape the current role into something more desirable, (4) a perceived necessity to change one's role. The identification of these four events addresses Research Question II, which sought to uncover why team members desire to engage in role shifting.

Based on the analysis of interview content, findings revealed that Step 2 in the role shifting process addressed the final three research questions posed. This can be attributed to the intertwined nature of the facilitators of and barriers to role shifting, and how employee perceptions of the existence of these factors plays a role in why they decided to engage or not to engage in role shifting. Research Question III sought to understand why team members chose to engage or not to engage in role shifting within their team. Research Question IV and V respectively sought to identify the facilitators of and barriers to successful team role shifting.

Once the assessment of facilitators and barriers takes place, an employee decides if they will move on to the next step in the role shifting process where they attempt to

role shift (Step 3). During their role shift, they may also encounter facilitators/barriers to role shifting, as well. Once they have completed the attempt, they evaluate whether it was successful (Step 4). If the evaluation is deemed successful, they can choose to end their role shifting process, or they may reassess the role shifting attempt and potentially re-engage in role shifting again (Step 5).

With the introduction of this grounded theory, it is important to consider its similarities and differences in comparison to existing theoretical work. As discussed previously, Kozlowski and colleagues' (1999) theory of team compilation addresses a process of how team roles emerge, whereby dynamic interactions of lower-level phenomena over time compile to create a higher-level "team role" construct (Grand et al., 2016). To review, Kozlowski and colleagues (1999) theory of team compilation has four phases: (1) team formation, (2) task compilation, (3) role compilation, and (4) team compilation. The grounded theory of team role shifting is most similar to that of Kozlowski and colleagues' (1999) theory of team compilation within the role compilation and team compilation phases.

This theory of team role shifting and Kozlowski and colleagues' (1999) theory of team compilation have some theoretical overlap; however, it is clear each theory is distinct in focus. In phase three of Kozlowski and colleagues' (1999) theory (role compilation) a shift in focus from the individual team member to that of dyadic interactions between team members begins to occur. Throughout the phases of this theory, progression flows from a focus on the individual to a holistic focus on the broader team network. While there is a progressive aspect to the current grounded theory as an individual moves across stages in the process, it has an overwhelming emphasis on the

individual within the team as the focal point of the theory's progression, highlighting the decision-making process behind individual team role shifting behavior.

Furthermore, it could be possible that the process of team role shifting is a distinct phenomenon that occurs at multiple points throughout the team compilation phase. Once team members begin to define their team roles and identify their role boundaries, there could be many opportunities for the trigger events identified in the current grounded theory to spark the decision process behind team role shifting. Trigger events may even occur beyond the role compilation phase. This could especially be a possibility as the team compilation phase occurs when the team is able to improve their network functioning and properly adapt to their surrounding context. The inherent dynamism and adaptation that coincides with team compilation could give rise to various trigger events that lead an individual team member to engage in the process of team role shifting. Thus, while the process of team role shifting could exist throughout the role compilation and team compilation phases of Kozlowski and colleagues' (1999) theory of team compilation, the current grounded theory clearly articulates a distinct process that may impact overall team functioning across the team lifecycle.

Further, it is important to note the concept of entrainment and how it may relate to individual perceptions of facilitators of and barriers to team shifting. As discussed, entrainment refers to the rhythm, pace, and synchronicity that links processes across different levels of phenomena (Kozlowski & Klein, 2000). Entrainment can be characterized in Kozlowski and colleagues' (1999) theory of team compilation through the dynamic interactions that build to eventually define the next phase of compilation as a higher-level phenomenon. The concept of entrainment is related to the facilitators of and

barriers to team role shifting, such that it may shape individual perceptions of team members in regard to their ability to role shift. As lower-level phenomena compile, they determine the trajectory of how a team will ultimately function as a unit. As individuals interact, create role boundaries, and negotiate the changes that coincide with the adaptations necessary to work effectively, the current functioning of the team is dependent on its past functioning. Thus, throughout the compilation process, it is possible that the facilitators and barriers that emerged from the current grounded theory are developed through this process of entrainment across the team life cycle. There may be emergent products of compilation that lead to factors that assist or hinder role shifting that individuals consider in their decision-making process. Interactions could compile to create situations that play to one's advantage in their pursuit to role shift, whereas interactions could also compile to create situations which makes one's pursuit more difficult or dissuades them from even attempting to role shift.

Lastly, the current theory of team role shifting should also be compared to Turner's foundational theory of role change. As mentioned, Turner (1990) asserts that role change is characterized by change in shared expectations and behaviors regarding routine role performance and boundaries. A key part of this theory asserts that a role cannot change unless the system in which it is embedded can adapt to accommodate that change. This implies that a role shift can only occur for a single team member if the overarching team role system adjusts to accommodate their change.

Interestingly, this echoes the concept of facilitators and barriers to team role shifting that emerged in the current theory of team role shifting. Turner (1990) highlights a multitude of forces that can lead to the successful negotiation of a new role pattern.

These forces include the extent to which (1) the favored role pattern appears to be achievable, (2) the environment of the role provides flexibility to make a change, (3) others desire for the role to be changed, (4) the environment would benefit from the new role pattern, (5) cultural credibility is afforded to the new role pattern, and (6) institutional support is gained for the new role pattern. While these types of forces are discussed by Turner (1990) from a macro-level perspective, these concepts are both applicable to and reflect the facilitators of and barriers to team role shifting.

As mentioned, Turner (1990) asserts that one of the forces at play in a successful negotiation of a new role pattern is the extent to which the favored role pattern appears to be achievable. One of the key elements that emerged from grounded theory was the idea that individuals assess and/or experience the facilitators of and barriers to a successful role shift. Thus, Turner's (1990) idea about the perception that a role change can be successfully achieved is reflected in this stage of the team role shifting process. While the perception of success was viewed as a specific force in Turner's theory, rather than a stage like in the current grounded theory, Turner's other forces can be found in the facilitators and barriers of team role shifting. For example, the flexibility of the environment to accommodate a potential role change is reflected across types of facilitators and barriers. Interpersonal factors that help or hinder team role shifting are reflected in the permissions and support provided by team leadership and fellow teammates. Further, structural facilitators and barriers capture this through the flexibility to change afforded in individual roles and other team member roles.

While Turner's (1990) broader perspectives on role change are exhibited in the current grounded theory, it is important to also highlight the differences between these

two theories. Firstly, the general focus of the theory of team role shifting is specific rather than macro-level, focusing on the individual within their team. This distinction can particularly be seen in the individual orientation of the facilitators of and barriers to team role shifting. For example, diverging from a macro lens taken by Turner (1990), the current theory highlights micro-level factors that are inherent to the individual in their role, as they experience psychological facilitators and barriers that can make a given role shift more or less successful, like anxiety or agency. Further, the experiential factor is specific to the individual as well, highlighting that deep knowledge and expertise about one's team role can be helpful in enacting desired role shifting. Thus, it is clear that this theory of team role shifting captures the core elements of the theories off which it was informed, but has also shown a distinction in theoretical focus, specific to the individual in their role as they engage within their team network.

The next step of this dissertation is to create an application of this theory of team role shifting. A scale measure with the goal of capturing the facilitators to and barriers of team role shifting was developed. Further, the initial collection of reliability and validity evidence for this scale measure will help elucidate whether the four types of facilitators and barriers that emerged from grounded theory are a viable assessment of ability to role shift within a team.

## **Study 2**

### **Overview of Study 2**

The second part of this dissertation focuses on a specific subset of the broader theory of role shifting in organizational teams from the first study. Specifically, this study aimed to create a new scale measure of the facilitators of and barriers to team role



shifting, aspects of which emerged in Study 1. The purpose of this scale measure is to help organizations, organizational teams, and individual organizational team members identify the presence of facilitators and barriers to team role shifting that exist in their surrounding organizational, team, and personal context. Understanding the state of the facilitators and barriers could aid team members, team leaders, and organizations to identify and potentially remove existing barriers to role shifting within organizational teams.

This scale measure, with newly generated items, was based on a previously determined theoretical structure. Therefore, confirmatory factor analysis was used to evaluate the fit of this four factor theoretical model (the four types of facilitators & barriers: interpersonal, structural, psychological, experiential), refine the scale measure, and make decisions on which items were most appropriate to retain. Both the initial and revised scale measure were tested for internal consistency and factor structure, and the revised version was additionally tested for convergent validity, discriminant validity, and criterion-related validity (Hinkin, 1998; Hogan, 2015). Based on the findings from the initial model tests, the final scale was intended to have about 5-6 items per sub-facet of the measure, which would result in a measure approximately 20 items in length. The rationale for this goal is attributed to the intended use of this as a diagnostic in organizations, such that it should balance practicality with psychometric integrity, as lengthier measures can lead to fatigue and loss of attention when responding to measurement tools (Hogan, 2015). Data for this study was collected using Prolific, which has been shown to be a reliable online participant recruitment platform (Palan & Schitter, 2018).

## Study 2 Method

### Participants

A sample of 250 participants were collected for scale development. See Table 2 below for demographic information about this sample (see Appendix B for these questions). In line with psychometric development standards, this sample had a minimum of 200 participants (Boateng et al., 2018).

Respondents were at least 18 years of age, currently employed, and currently worked on an organizational team. Rates for scale measure completion were \$9.50 per/hour per respondent. Attention was checked in two different ways. First, select items in the survey were balanced for item directionality to ensure responses were consistent (Hogan, 2015). Lastly, there were four statements in the scale measure that asked respondents to provide a specific answer (e.g., “Please select ‘Disagree’ for this item”). If a participant failed to complete the attention checks correctly, their response was discarded.

Table 2  
*Demographic Information*

Qualitative Demographics		
	<u>Variables</u>	<u>%n</u>
<u>Gender</u>	Female	42%
	Male	57%
	Non-binary/Third gender	0%
	Prefer not to say	1%
<u>Race / Ethnicity</u>	African-American/Black	2%
	Asian	2%
	Biracial/Multiracial	1%
	Hispanic/Latino	16%
	White/Caucasian	77%
	Prefer not to say	1%
Quantitative Demographics		

*(Table 2 continued)*

	<u>Mean</u>	<u>SD</u>	<u>Min</u>	<u>Max</u>
<u>Age</u> (years)	29.00	9.07	18.00	63.00
<u>Organizational</u>				
<u>Tenure</u> (years)	4.00	4.85	0.00	40.00

Note.  $N = 250$

## **Procedure**

Once the items were written based on each of the four types of facilitators/barriers of team role shifting, the measure was tested by recruiting 250 participants to complete the initial draft of the measure using the Prolific survey platform. In addition, existing measures associated with convergent, discriminant, and criterion-related validity were included in data collection. These additional measures are described in the Measures section below. Based on statistical analyses, decisions were made as to which items were most appropriate to keep on the next version of this scale measure.

## **Measures**

### ***Team Role Shifting Measure (TRSM)***

This initial measure included 84 items of which were based on information gained from Study 1. Descriptive statistics for all initial 84 items of this measure can be found in Appendix C. In accordance with item writing principles, double to triple the items needed for the final scale measure were created for this preliminary testing of the scale (Hogan, 2015). Items attempted to reflect the facilitators of and barriers to team role shifting that emerged in Study 1. They were rooted in the four common types of facilitators and barriers - interpersonal, structural, psychological, and experiential. For this measure, the intent was to have approximately five items for each of the four types of facilitators/barriers to team role shifting, making the intended total of the final version of

this measure about 20 items. Sample items include “My manager searches for ways I can learn more in my team role.” (interpersonal), “My team structure blocks me from taking on more challenging opportunities in my role.” (structural), “I fear that my team will dislike it if I ask to try new types of work or opportunities while in my current team role.” (psychological), and “I have a lot to learn about the work required of me in my team role.” (experiential). Items were rated on 1 to 5 Likert-type scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*). Lower scores indicated the experience of barriers to team role shifting, while higher scores indicated facilitators of team role shifting. See Appendix C for all 84 survey items and identification of which items require reverse scoring.

### ***Big Five Aspects Scale (BFAS)***

The two personality constructs of neuroticism and extraversion from the BFAS were measured (see John, Naumann, & Soto, 2008). Neuroticism typically encompasses the tendency to experience negative feelings like anxiety, depression or self-doubt, while extraversion typically encompasses the tendency toward talkativeness, assertiveness, and the general enjoyment of interacting with others. Each construct has 20 items. Sample items of neuroticism include “Get angry easily” and “Seldom feel blue”. Sample items of extraversion include “Make friends easily” and “Hold back my opinions”. Neuroticism required 8 items to be reverse scored, and extraversion required 9 items to be reverse scored. All items were rated on a scale from 1 to 5 (1 = *Strongly Disagree*; 5 = *Strongly Agree*). See Appendix D for all neuroticism and extraversion items.

### ***Perceived Organizational Support***

The short-form measure of perceived organizational support, which has 8 items, was used (see Rhoades & Eisenberger, 2002). Perceived Organizational Support captures

whether individuals generally believe their organization cares for and values them. Sample items include “The organization values my contribution to its well-being” and “The organization fails to appreciate any extra effort from me”. Items were rated on a 7-point scale (1 = *Strongly Disagree*; 7 = *Strongly Agree*). Four of the items in this measure are reverse scored. See Appendix E for all items in this measure.

### ***Job Satisfaction***

Job satisfaction was measured using a brief, global-level 10-item scale (see MacDonald & McIntyre 1997). Sample items include “I receive recognition for a job well done” and “I feel good about my job”. Items were rated on a 5-point scale (1 = *Strongly Disagree*; 5 = *Strongly Agree*). See Appendix F for all items in this measure.

### ***Psychological Collectivism***

The Concern facet of psychological collectivism was measured (see Jackson, Colquitt, Wesson, & Zapata-Phelan, 2006). The Concern facet of psychological collectivism attempts to capture whether individuals are motivated by the concern they hold for the well-being of their team members, rather than by their own self-interest. It includes three items: “The health of those groups was important to me”, “I cared about the well-being of those groups”, and “I was concerned about the needs of those groups”. Items were rated on a 5-point scale (1 = *Strongly Disagree*; 5 = *Strongly Agree*).

### ***Psychological Safety***

Psychological safety was measured with a 7-item measure (see Edmondson, 1999). Psychological safety represents the degree to which an individual believes his or her team is “safe” enough for them to take risks without concern of negative reactions by their fellow teammates. Sample items include “If you make a mistake on this team, it is

often held against you” and “It is safe to take a risk on this team”. Each item was rated on a 5-point scale (1 = *Strongly Disagree*; 5 = *Strongly Agree*). Three of the items in this measure were reverse scored. Refer to Appendix G for all items in this measure.

### ***Team Workload Questionnaire (TWLQ)***

The TWLQ is a 10-item measure where items are rated on an 11-point scale (0 = *Very Low*; 10 = *Very High*) (see Sellers, Helton, Näswell, Funke, & Knott, 2014). Team Workload captures the degree to which team resources are exhausted by their experienced team demands. Sample items include “How much did you have to control your emotions (e.g. anger, joy, disappointment)?” and “How difficult was it to share and manage time between task-work (work done individually) and team-work (work done as a team)?”. All items can be referenced in Appendix H.

### ***Team Diagnostic Survey (TDS)***

The TDS attempts to act as a diagnostic measurement of the strengths and weaknesses that exist in a work team. Eleven facets of this measure were included in this study (see Wageman, Hackman, & Lehman, 2005): Real Team, Satisfaction with Growth Opportunities, Clear, Challenging, Size, Skills, Autonomy/Judgment, Group Norms, Coaching Availability, Quality of Team Interaction, and Satisfaction with Team Relations. Sample items include “There is so much ambiguity about who is on this team that it would be nearly impossible to generate an accurate membership list”, “Members of this work team have more than enough talent and experience for the kind of work that we do”, and “Members of this team agree about how members are expected to behave”. All items in this measure were rated on a 5-point scale (1 = *Highly Inaccurate*; 5 = *Highly*

*Accurate*). The 37 items from this measure included in this study can be found in Appendix I.

### **Validity Evidence**

This study followed best practice on the collection of convergent, discriminant, and criterion-related validity evidence (Clark et al., 2020; Hinkin, 1998). To investigate convergent validity, the relationship between aspects of the TRSM and established scale measures expected to have theoretical positive relationships with the TRSM were examined. The goal of assessing convergent validity is to ensure that psychological constructs that one would theoretically expect to relate to those in the new scale measure do show a moderate correlation. However, the correlation should not be so strong ( $> 0.70$ ) as to indicate theoretical overlap of the constructs being measured (Clark et al., 2020; Hinkin, 1998). Items for this new scale were based on the four theoretical categories that emerged from grounded theory regarding types of facilitator of and barriers to team role shifting. Hence, existing scale measures used to assess convergent validity were selected on the expectation that they should positively relate to at least one of the four types of facilitators and barriers captured in the TRSM. For example, part of the interpersonal barriers in TRSM are reflected through leader and team support. Thus, it would be expected that the interpersonal aspect of the TRSM would be related to scores about perceived organizational support (Rhoades & Eisenberger, 2002). See Table 3 for a list of the measures used to assess convergent validity and the types of facilitators or barriers of team role shifting for which they were expected to moderately relate.

Discriminant validity evidence was also collected. The purpose of assessing discriminant validity is to ensure that any existing scale measures that could be

theoretically redundant with the constructs represented in the new measure are distinct enough to warrant investing in the development of the new measure (Clark et al., 2020; Hinkin, 1998). Thus, a lack of strong correlation between the existing measures and the TRSM would indicate a lack of redundancy between the constructs being measured. For instance, the TDS is an established measure that is meant to act as a team diagnostic for the strengths and weaknesses of a team, similar to how the TRSM seeks to diagnose particular aspects of team that make it better or worse; however, the TRSM has a specific focus on factors that impact one's ability to role shift in their team. Therefore, any potentially synonymous aspects of the TDS were compared to the TRSM to ensure there is no redundancy in their measurement. Table 3 also contains the existing measures used to assess discriminant validity of the new TRSM.

Lastly, criterion-related validity evidence was collected. Criterion-related validity examines how well a measure (the TRSM) relates to potential outcome measures (Hinkin, 1998). In this case, it was expected that higher scores on the TRSM, which would indicate the presence of more facilitators to team role shifting, would be associated with greater satisfaction in one's role or job.



Table 3  
*Measures to Assess Convergent & Discriminant Validity Evidence*

Convergent Validity Evidence	
<u>Type of Facilitator/Barrier</u>	<u>Existing Scale Measure</u>
Interpersonal	● Perceived Organizational Support
Structural	● TDS (Real Team)
Psychological	● BFAS - Neuroticism ● BFAS - Extraversion ● Psychological Collectivism (Concern) ● Psychological Safety
Discriminant Validity Evidence	
Interpersonal	● TDS (Coaching Availability) ● TDS (Quality of Team Interaction) ● TDS (Satisfaction with Team Relationships)
Structural	● TDS (Clear) ● TDS (Challenging) ● TDS (Size) ● TDS (Group Norms) ● TWLQ
Psychological	● TDS (Autonomy/Judgment)
Experiential	● TDS (Skills)
Criterion-Related Validity	
Each Type	● TDS (Satisfaction with Growth Opportunities) ● Job Satisfaction

## Study 2 Results

### Initial Assessment of Model Fit

#### *Internal Consistency*

First, the initial 84-item TRSM (see in Appendix C) was assessed for internal consistency. To do so, McDonald's (1978) omega hierarchical was used because it is well-suited to assess this type of model structure, providing an estimate of the overall variance found in general and specific factors ( $\omega_t$ ), as well as an estimate of the variance that can specifically be attributed to a general factor ( $\omega_h$ ). Overall, the measure had high internal consistency ( $\omega_t = 0.95$ ,  $\omega_h = 0.53$ ). The results of this analysis indicated that 21 items should be removed from further analyses because they did not sufficiently load (specifically, the Schmid Leiman factor loadings were less than 0.20) for both the general factor and sub-factors. To best represent the intended theoretical structure of the measure, items should adequately load onto the general factor and a sub-factor, as each item should reflect a sub-facet (either interpersonal, structural, psychological, experiential) and its underlying representation as a facilitator/barrier to team role shifting.

#### *Confirmatory Factor Analysis (CFA)*

Continuing with 63 items, the hypothesized four factor model (interpersonal, structural, psychological, experiential) was examined for fit in comparison to a single factor structure. The purpose of conducting these initial CFA's was to assess the relative fit of the four factor model to a more parsimonious single factor model, rather than to assess quality of the fit. The reasoning behind this is that there is potential for certain items to have poor psychometric quality, as this is the first time they have been administered to a sample of respondents. Thus, similar to what would be done in an

exploratory factor analysis if this measure had no intended structure to begin with, items with poor loadings onto each factor were removed to create a refined 20-item version of this scale measure, of which was re-tested for appropriateness and quality of the four factor model fit (Pett, Lackey, & Sullivan, 2003). Parameters for each of these 63-item models can be found in Appendix J (four factor model) and Appendix K (one factor model).

### ***Model Comparison***

Equivalent models, a four factor and one factor, were compared. Consistent with recommended practices for assessing model fit,  $\chi^2$ , TLI, CFI, RMSEA, and SRMR were examined (Pett et al., 2003). The initial four factor model ranged from poor ( $\chi^2 = 5019.58$ ,  $df = 1884$ ,  $p < 0.00$ ; TLI = 0.55, CFI = 0.57, SRMR = 0.12) to acceptable (RMSEA = 0.086 [0.083, 0.088]) model fit. The initial one factor model had overall poor fit ( $\chi^2 = 5712.23$ ,  $df = 1890$ ,  $p < 0.00$ ; TLI = 0.46, CFI = 0.48, SRMR = 0.11, RMSEA = 0.09 [0.092, 0.097]). The chi-square difference test between models revealed a significant difference in model fit,  $\Delta\chi^2(6) = 692.65$ ,  $p < 0.00$ . This indicated that the models were not equivalent, and that the four factor model was the relatively better choice to move forward with to further refine the measure, as it had relatively better values for all indices except the SRMR, which was equivalent to the one factor model.

### ***Item Reduction***

As mentioned, it was intended for this scale to have approximately 20 items total with 5 items per factor. Thus, for each factor, the first five items with the highest standardized factor loadings were retained for the next iteration of this scale measure. See Table 4 below for the list of items retained in the next version of the scale measure.

---

Table 4  
*Items Retained in 20-Item TRSM*

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Item	
<u>Factor: Interpersonal</u>	
I8.	My manager is open-minded to my ideas about making changes to my team role.
I12.	My manager allows me to seek out my own development opportunities in my team role.
I9.	My manager searches for ways I can learn more in my team role.
I6.	My team leader opposes me when I suggest changes I want to make to my team role. (R)
I3.	My team leader supports me when I want to make changes to my team role.
<u>Factor: Structural</u>	
S19.	My team role provides me the flexibility to explore my own interests.
S21.	I have the power to change aspects of my team role.
S24.	My team role gives me room to explore work I am interested in.
S2.	My team is set up in a way that allows me the flexibility to explore my own interests in my role.
S22.	My team is structured in a way that makes it difficult to improve in my team role. (R)
<u>Factor: Psychological</u>	
P18.	I am confident I will succeed in the role development opportunities I carry out on this team.
P3.	I take the necessary steps to make the changes I want to make in my team role.
P23.	If I want to change something about my team role it is my responsibility to make it happen.
P13.	I fear that my team will dislike it if I ask to try new types of work or opportunities while in my current team role.
P22.	I determine what I want to change about my team role and seek out new ways to achieve them.

(Table 4 continued)

Factor: Experiential

- E2. I have little experience in my team role. (R)  
 E1. I have much experience in my team role.  
 E16. I consider myself an expert in my team role.  
 E17. I have extensive training and/or experience in my team role.  
 E13. I am new to my team role. (R)

---

*Note.* VE = Variance Explained, R = item requires reverse scoring.

## Final Assessment of Model Fit

### *Confirmatory Factor Analysis*

The four factor model was reassessed on the 20-item version of the TRSM. This version of the scale resulted in overall favorable fit of the four factor model (TLI = 0.93, CFI = 0.92, SRMR = 0.06, RMSEA = 0.064 [0.054, 0.074]), except for results of the chi-squared test ( $\chi^2 = 326.45$ ,  $df = 164$ ,  $p < 0.00$ ) which indicated poor fit. Model parameters, covariances, and variances can be found below in Table 5.

---

Table 5  
*20-Item Four Factor Model - CFA Results*

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Latent Variables				
<u>Item</u>	<u>Estimate</u>	<u>SE</u>	<u>z-value</u>	<u>P(&gt; z )</u>
I8.	0.88	0.06	15.46	0.00
I12.	0.78	0.06	13.49	0.00
I9.	0.67	0.06	10.84	0.00
I6.	0.63	0.06	11.06	0.00
I3.	0.58	0.05	12.02	0.00

*(Table 5 continued)*

S19.	0.83	0.05	15.67	0.00
S21.	0.78	0.06	13.18	0.00
S24.	0.77	0.05	14.69	0.00
S2.	0.75	0.06	13.60	0.00
S22.	0.66	0.06	10.91	0.00
P18.	0.45	0.05	8.53	0.00
P3.	0.50	0.06	8.28	0.00
P23.	0.44	0.07	6.72	0.00
P13.	0.49	0.07	7.09	0.00
P22.	0.43	0.05	8.29	0.00
E2.	0.94	0.05	18.65	0.00
E1.	0.90	0.05	18.52	0.00
E16.	0.69	0.06	10.92	0.00
E17.	0.66	0.06	11.16	0.00
E13.	0.66	0.07	10.16	0.00
Covariances				
	<u>Estimate</u>	<u>SE</u>	<u>z-value</u>	<u>P(&gt; z )</u>
I-S	0.79	0.04	22.80	0.00
I-P	0.67	0.06	11.41	0.00
I-E	0.15	0.07	2.12	0.03
S-P	0.75	0.05	14.65	0.00
S-E	0.20	0.07	2.98	0.00
P-E	0.31	0.08	4.11	0.00
Variances				
<u>Item</u>	<u>Estimate</u>	<u>SE</u>	<u>z-value</u>	<u>P(&gt; z )</u>
I8.	0.31	0.04	7.41	0.00

*(Table 5 continued)*

I12.	0.42	0.05	8.88	0.00
I9.	0.60	0.06	9.91	0.00
I6.	0.51	0.05	9.85	0.00
I3.	0.34	0.04	9.54	0.00
S19.	0.28	0.04	8.03	0.00
S21.	0.48	0.05	9.45	0.00
S24.	0.32	0.04	8.73	0.00
S2.	0.39	0.04	9.28	0.00
S22.	0.59	0.06	10.11	0.00
P18.	0.41	0.04	9.24	0.00
P3.	0.53	0.06	9.38	0.00
P23.	0.70	0.07	10.02	0.00
P13.	0.77	0.08	9.89	0.00
P22.	0.40	0.04	9.37	0.00
E2.	0.13	0.03	5.04	0.00
E1.	0.13	0.02	5.27	0.00
E16.	0.67	0.06	10.45	0.00
E17.	0.58	0.06	10.42	0.00
E13.	0.74	0.07	10.54	0.00
I	1.00			
S	1.00			
P	1.00			
E	1.00			

---

*Note.*  $N = 241$ , I = Interpersonal, S = Structural, P = Psychological, E = Experiential

To ensure that a four factor model was still the most appropriate choice for this reduced version of the TRSM, especially to confirm that this solution is favored over one that is more parsimonious, an equivalent one factor model was tested, as well. Overall, the one factor model fit poorly to this version of the scale ( $\chi^2 = 1086.07$ ,  $df = 170$ ,  $p < 0.00$ ; TLI = 0.55, CFI = 0.60, SRMR = 0.14, RMSEA = 0.15 [0.14, 0.16]), and a chi-squared difference test resulted in a significant difference between the four factor and one factor model for this version of the scale measure ( $\Delta\chi^2(6) = 759.61$ ,  $p < 0.00$ ). Thus, the theoretically-informed four factor model favorably fit the refined scale measure and remained a better fit than the simpler one factor model. See Figure 3 for a visual of the four factor model fit and its resulting parameters.

### ***Internal Consistency***

Internal consistency of the updated TRSM was assessed. For this version of the measure,  $\omega_t$  was 0.93 and  $\omega_h$  was 0.65. This measure of internal consistency appropriately captures the balance of interrelatedness of each facilitator/barrier while also demonstrating the theoretical distinction between each unique type of facilitator/barrier.

### ***Validity Evidence***

All correlations examining validity evidence for the 20-item TRSM can be found in the following tables: Table 6, 7, and 8. Descriptive statistics for each of the existing measures included in this analysis can be found in Appendix M.



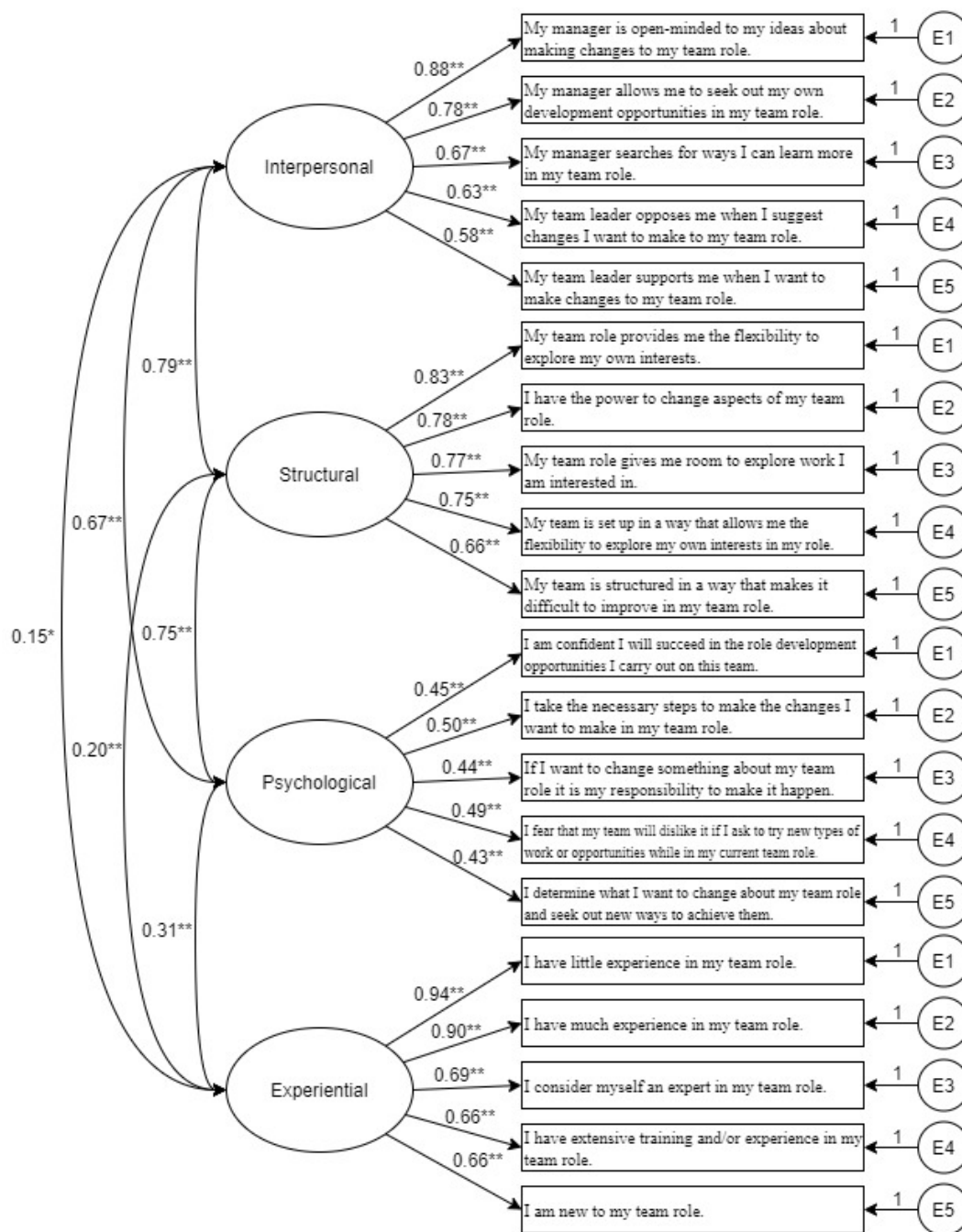


Figure 3. The fitted four factor model for the 20-item TRSM.

### ***Convergent Validity.***

As mentioned, the goal of assessing convergent validity is to ensure that psychological constructs that one would theoretically expect to relate to those in the new scale measure show a moderate correlation (Clark et al., 2020; Hinkin, 1998). Of all

tested, the relationship between the updated TRSM and constructs expected to show convergence were moderately related, with correlation coefficients ranging from 0.29-0.63. All convergent validity correlations can be found in Table 6.

Interestingly, the relationship between perceived organizational support and the interpersonal dimension of the TRSM has a stronger correlation coefficient in comparison to the other correlations of interest in this analysis. This may stem from this dimension having a heavy focus on leadership dynamics within the team, which may translate into overall perceptions of the organization that are more interpersonal in nature. For instance, the perceived organizational support measure has interpersonal-type statements about the organization like “Even if I did the best job possible, the organization would fail to notice”, which could commingle with more direct perceptions of leadership and how they react to one’s performance on the job.

Table 6  
*Correlations for Convergent Validity Evidence*

	1	2	3	4	5	6	7	8	9	10
1 . BFAS - N	1.00									
2 . BFAS - E	-0.46	1.00								
3 . Psych Safety	-0.41	0.28	1.00							
4 . Psych CC	-0.32	0.35	0.42	1.00						
5 . POS	-0.33	0.26	0.59	0.40	1.00					
6 . TDS - Real Team	-0.09	0.06	0.45	0.22	0.34	1.00				
7 . Interpersonal	-0.32	0.26	0.60	0.42	<b>0.63</b>	0.29	1.00			
8 . Structural	-0.34	0.24	0.54	0.40	0.62	<b>0.29</b>	0.69	1.00		
9 . Psychological	<b>-0.39</b>	<b>0.39</b>	<b>0.49</b>	<b>0.41</b>	0.42	0.28	0.50	0.57	1.00	
10 . Experiential	-0.18	0.20	0.13	0.17	0.09	0.22	0.13	0.20	0.26	1.00

*Note.* N=248, Legend: BFAS = Big Five Aspects Scale, N = Neuroticism, E = Extraversion, Psych = Psychological, CC = Collectivism-Concern, POS = Perceived Organizational Support, TDS = Team Diagnostic Survey, **bolded** correlations are those listed in Table 3

### ***Discriminant Validity.***

The purpose of assessing discriminant validity is to ensure that any existing scale measures that could be theoretically redundant with the constructs represented in the new measure are distinct enough to warrant investing in the development of the new measure

(Clark et al., 2020; Hinkin, 1998). Thus, existing measures that could theoretically overlap the most with the TRSM were examined, comparing constructs specifically related to team diagnostics (TDS) and team workload (TWLQ). All convergent validity correlations can be found in Table 7.

The relationship between the updated TRSM and these measures were small to moderate in strength, with correlation coefficients ranging between 0.14-0.48. It should be noted that the TWLQ had no relationship ( $r = 0.00$ ) with the structural factor of the updated TRSM and had little to no relationship with all of the measures tested. This finding makes sense, as the TWLQ typically asks for a rating of specific teaming situations. With each survey participant coming from different backgrounds, workplaces, and experiences off which they used to rate the TWLQ items, it would be difficult to capture the consistency of scores typically rooted in a shared teaming situation (Sellers et al., 2014).

The interpersonal dimension had the strongest relationships when examining discriminant validity, with reported quality of team interactions ( $r=0.48$ ) and satisfaction with team relations ( $r=0.43$ ) resulting in moderately high correlation coefficients. This finding makes theoretical sense when considering that the assessment of team interactions and team relations are both highly interpersonal in nature.

Table 7  
Correlations for Discriminant Validity Evidence

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 . Job Sat	1.00															
2 . TDS - Growth Opps	0.35	1.00														
3 . TDS - Clear	0.27	0.35	1.00													
4 . TDS - Chall	0.02	0.16	0.01	1.00												
5 . TDS - Size	0.37	0.19	0.41	-0.14	1.00											
6 . TDS - Skills	0.45	0.29	0.37	-0.12	0.48	1.00										
7 . TDS - AJ	0.21	0.42	0.23	0.18	-0.03	0.12	1.00									
8 . TDS - Group Norms	0.35	0.28	0.41	-0.06	0.42	0.49	0.18	1.00								
9 . TDS - Coach	0.31	0.20	0.14	0.01	0.21	0.29	0.02	0.33	1.00							
# . TDS - QoTI	0.46	0.47	0.48	0.02	0.49	0.56	0.26	0.56	0.30	1.00						
# . TDS - SwTR	0.45	0.42	0.48	0.04	0.34	0.53	0.25	0.46	0.26	0.72	1.00					
# . TWLQ	0.01	-0.01	-0.05	0.24	-0.12	-0.05	0.14	-0.16	0.00	-0.19	-0.06	1.00				
# . Interpersonal	0.63	0.36	0.25	0.13	0.31	0.38	0.16	0.25	<b>0.34</b>	<b>0.48</b>	<b>0.43</b>	0.01	1.00			
# . Structural	0.61	0.40	<b>0.24</b>	<b>0.14</b>	<b>0.29</b>	0.29	0.25	<b>0.23</b>	0.34	0.43	0.37	<b>0.00</b>	0.69	1.00		
# . Psychological	0.47	0.36	0.27	0.03	0.24	0.38	<b>0.21</b>	0.27	0.28	0.43	0.42	0.08	0.50	0.57	1.00	
# . Experiential	0.31	0.04	0.14	-0.13	0.08	<b>0.21</b>	0.07	0.15	0.05	0.15	0.20	0.01	0.14	0.20	0.26	1.00

Note.  $N = 248$ , Legend: Job Sat = Job Satisfaction, TDS = Team Diagnostic Survey, Growth Opps = Satisfaction with Growth Opportunities, Chall = Challenging, AJ = Autonomy/Judgment, Coach = Coaching Availability, QoTI = Quality of Team Interactions, SwTR = Satisfaction with Team Relations  
TWLQ = Team Workload Questionnaire, **bolded** correlations are those listed in Table 3

### *Criterion-Related Validity.*

Lastly, criterion-related validity was examined to understand how well the updated TRSM related to potential outcome measures (Hinkin, 1998). Specifically, job satisfaction and satisfaction with team growth opportunities (from the TDS) were examined as outcome measures. When comparing the average scores of job satisfaction to the average scores for each type of facilitator of and barrier to team role shifting, it was most correlated with the interpersonal ( $r=0.63$ ) and structural ( $r=0.61$ ) dimensions of the TRSM, while being relatively less, but still moderately, correlated to the psychological ( $r=0.48$ ) and experiential ( $r=0.31$ ) dimension (see Table 8). This finding may reflect the theoretical overlap of job satisfaction and how it can be associated with drivers that make desired changes to one's role more or less accessible. It should also be noted that the relationship between job satisfaction and the interpersonal and structural dimensions of team role shifting are particularly strong.

Secondly, when comparing the average scores of satisfaction with growth opportunities from the TDS to the average scores for each type of facilitator of and barrier to team role shifting, it was most correlated with the interpersonal ( $r=0.36$ ), structural ( $r=0.40$ ), and psychological ( $r=0.36$ ) dimensions of the TRSM, while resulting in barely any relation to the experiential ( $r=0.05$ ) dimension. The first three dimensions seem to reasonably and moderately relate to satisfaction with growth opportunities in one's team. However, this specific type of satisfaction shows little relation to experience in one's team role.

Table 8  
*Correlations for Criterion-Related Validity*

	1	2	3	4	5	6
1 . Job Sat	1.00					
2 . TDS - Growth Opps	<b>0.35</b>	1.00				
3 . Interpersonal	<b>0.63</b>	<b>0.36</b>	1.00			
4 . Structural	<b>0.61</b>	<b>0.40</b>	0.69	1.00		
5 . Psychological	<b>0.48</b>	<b>0.36</b>	0.50	0.57	1.00	
6 . Experiential	<b>0.31</b>	<b>0.05</b>	0.13	0.20	0.26	1.00

*Note.*  $N = 248$ , Legend: Job Sat = Job Satisfaction, TDS = Team Diagnostic Survey, Growth Opps = Satisfaction with Growth Opportunities, **bolded** correlations are those listed Table 3

### Study 2 Discussion

The purpose of this study was to create an initial measure of the facilitators of and barriers to team role shifting, based on the four types of facilitators and barriers that emerged from grounded theory in Study 1. Guided by common practice in confirmatory factor analysis to retain the more parsimonious model, the equivalent four-factor and one-factor models were compared for both the initial model fit of the original 84-item scale measure, as well as to a refined 20-item scale measure (Pett et al., 2003). In both instances, the four-factor model demonstrated the best fit, and was significantly different in fit from the one-factor model. Since this model was based on findings from the rigorous grounded theory approach in Study 1, it is concluded that the four-factor model of the four types of facilitators and barriers - those that are interpersonal, structural, psychological, and experiential - provide an appropriate underlying factor structure for the TRSM. Further, the final 20-item version of the TRSM demonstrated good model fit across all fit indices, except the chi-square model test, the results of which can be susceptible to large sample sizes (McHugh, 2013).

While this is an initial step to collect reliability and validity evidence for the TRSM, overall reliability, as well as convergent, discriminant, and criterion-related validity evidence, provided support for the TRSM as a distinct construct. A measurement of internal consistency for this scale measure showed that the whole and the four factors of the 20-item measure had adequate reliability metrics (McDonald, 1978). Tests of convergent validity resulted in moderate relationships between scale measures and facets of scale measures that should relate to the TRSM and its specific types of facilitators and barriers, thus demonstrating that the TRSM is related to constructs it theoretically should be related to (Clark et al., 2020; Hinkin, 1998). Further, tests of discriminant validity resulted in low to moderate relationships with the TRSM, which ultimately demonstrated that the TRSM is theoretically distinct from existing psychological constructs that had the potential to present redundancy in regard to the psychometric measurement of the facilitators of and barriers to team role shifting (Clark et al., 2020; Hinkin, 1998). Finally, criterion-related validity was assessed to observe how well the TRSM related to potential outcome measures, particularly those related to satisfaction with one's role growth and job (Hinkin, 1998). These results showed moderate to strong correlations with the TRSM.

This initial investigation of the TRSM has resulted in a new measure that effectively captures the interpersonal, structural, psychological, and experiential aspects that shape team role shifting. The TRSM's theoretical and psychometric quality should continue to be assessed when used for team and organizational applications. This will be discussed further in the general discussion section below.

## **General Discussion**

The purpose of this dissertation was two-fold: (1) to develop a grounded theory of team role shifting, and (2) to take the initial steps to create a practical application of this theory by developing a psychometric tool to capture the facilitators of and barriers to team role shifting. The first study uncovered the process individuals engage in as they make decisions and shift team roles. This process begins with an initial triggering event, followed by an assessment of existing facilitators and barriers of team role shifting, engaging in the role shift, and evaluating the success of the role shift (and whether the process should be re-attempted). Further, specific types of common facilitators of and barriers to team role shifting emerged from the analysis of interview content. These theoretically-based facilitators and barriers were then used to create the 20-item TRSM, which has accrued support as a value-added psychometric tool that effectively captures the interpersonal, structural, psychological, and experiential aspects that shape team role shifting.

## **Strengths & Limitations**

The strengths of this research include its grounded theory approach to understanding team role shifting and its theoretically-informed approach to development of the TRSM. Existing literature approaches role shifting from the perspective of external catalysts, whereby external pressures to adapt catalyze changes within the team in order to better accommodate. However, there was a lack of understanding into how individuals within teams can enact their own desired role changes, acting as an internal catalyst to role shifting. A grounded theory approach was used to understand internal team role shifting, as it allows for theory development through the gathering of rich, qualitative



data in an iterative, systematic manner (Charmaz, 2014). The ability to derive commonalities of experiences across a diverse set of respondents regarding their backgrounds, industries, tenure, and teams, provides deep insight into unveiling the inner workings of the team role shifting process (Charmaz, 2014). Extending the value of theory-informed work, the first steps to the development of a practically-applicable scale measure were rooted in the grounded theory of team role shifting. Rather than taking a purely exploratory approach to understanding the underlying factor structure of a given measure (Hinkin, 1998), the development of this measure originated from theory, and the factor structure of the devised items of this measure reflected and further supported the types of facilitators and barriers delineated by the theory of team role shifting.

Limitations of this research include the sample used for scale development and the scope of this scale development study. In the first study, the sample consisted mostly of white-collar professionals who worked on project teams. Due to this specificity of this sample, generalizing this theory to other populations (e.g., blue collar project teams) will need to be considered for potential overlap and differences. For example, blue collar professionals who work on projects in plants, factories, and manufacturing facilities may have less ability to role shift, regardless of their desire to, as they may be constrained by stricter role expectations in place to hedge health and safety risks.

In this second study, although research has deemed Prolific an adequate site for online data collection (Palan & Schitter, 2018), there is always risk in data quality when using these types of platforms. To mitigate this risk, two methods were included to ensure quality answers: (1) using items with both positive and negative directionality to assess the same dimensions, and (2) inserting four attention checks into the survey where the

participant was required to answer correctly; otherwise, their response was discarded. While the TRSM has evidenced support of positive psychometric quality, it is still a nascent measure and should continue to be tested on additional research samples, particularly on samples that work in specific types of teams and organizations (e.g., different industries, team types, skills). Further, the scope of this scale development study was designed to be an initial step in scale development; additional validity evidence should be gathered in regard to internal structure, convergent, discriminant, and criterion-related validity on various research samples.

### **Future Research**

Team role development research would benefit from future research on the nomological network and psychometric quality of the TRSM through varied data collection efforts.

Data collection efforts should continue to collect further reliability and validity evidence for the TRSM. Firstly, the TRSM should be tested on samples beyond an online survey collection platform like Prolific. It will need to be assessed on various types of teams in regard to team type (intact, ad-hoc, network; Scott & Einstein, 2001), and real organizational teams in different departments and teams across different industries. Further, types of manipulations that seek for individuals to identify particular interpersonal, structural, psychological, and experiential dimensions that exist in different team scenarios can also be examined.

Additionally, future research should seek to build upon the convergent, discriminant, and criterion-related validity assessed in this study. It is important to further collect evidence to support the validity of this measure, as well as to further observe the

relation of scores where dimensions had particularly weak or strong relationships with existing measures. Specifically, research with other samples can ensure that the relationship between the interpersonal dimension of the TRSM and the quality of team interactions and satisfaction with team relations from the TDS do not become so strong as to threaten any psychometric distinction between the interpersonal dimension and these two dimensions of the TDS. Additionally, there was little to no relationship between the experiential dimension of the TRSM and satisfaction with growth opportunities from the TDS. It is possible that those who are new to a team role or those who are very tenured in a team role may not experience much opportunity for growth as they are in a very early learning stage of the role, or they have reached a stage of stagnation in their role specific growth. Further research examining this relationship should pay attention to any resulting differences in their own sample or examine whether there may be a curvilinear relationship at play, such that those with more average tenure have more satisfaction with growth opportunities simply because they have more of them offered at that stage in their role tenure. It is also recommended to expand the scope of validity evidence collected, such that other evidence is included, like the exploration of predictive validity, and of additional subjective and objective team related outcomes and organizational performance metrics.

### **Theoretical Contributions**

This dissertation introduced the theory of team role shifting, which adds to the current understanding of team roles and team adaptation literatures. The team roles literature has offered theory about the general types of roles that individual team members can encompass during their teamwork, like “Power Seeker” (e.g., TRIAD;

Driskell et al., 2017), while the team adaptation literature has highlighted how teams adapt to external pressure and changes, particularly when working within the context of a team network (e.g., Johnson et al., 2006; Kozlowski et al., 1999). While these theories have helped to inform the current understanding of team role generalizations and the interactive functioning of team roles within their network, the theory of team role shifting specifically focuses on the individual and their desire to enact their own role change within their team network. Therefore, the theory of team role shifting highlights how an individual team member engages in the process of catalyzing their own desired changes to their role.

This theory introduced a five-stage process behind individual team role shifting and identified four distinct types of facilitators of and barriers to an individual successfully role shifting in their team. It extends beyond current theories of team roles and adaptation to provide an understanding from the perspective of a team member about how they think about and ultimately decide to enact change within their teams, acting as their own catalyst of change.

### **Practical Applications**

Practical applications of this research stem from the development of the TRSM, as well as from the theory of team role shifting when considering implications for team leadership.

Firstly, the development of the TRSM was the initial step to bringing a piece of the theory of team role shifting to practice. The purpose of this measure is to be used by individuals, teams, and organizations as a diagnostic of the existing facilitators and barriers behind team role shifting. The TRSM is expected to be linked to important

organizational and team outcomes, as prior research has linked role dissatisfaction to outcomes like burnout and turnover (Dalal et al., 2012; Speer et al., 2019). Interestingly, as shown in the investigation of criterion-related validity, the greater presence of facilitators of team role shifting is associated with higher satisfaction with growth opportunities and one's job. The 20-item TRSM can be used for practical application to inform diagnostics and decisions about organizational teams. Researchers who use the TRSM should observe how it behaves with their sample prior to making decisions based on its results.

Secondly, a practical takeaway from this research is the persistent impact that leadership tends to have on teams (e.g., Morgeson, DeRue, & Karam, 2010). Interactions with leadership can act as triggers behind individuals wanting to role shift, as well as potential determinants to whether someone can conduct a role shift. While all situations are different, it may be beneficial for team leaders and managers to be mindful that providing their reports room to grow and explore is important, but to also assess the situation holistically to understand whether one's desired role shift will be a net positive contribution toward team effectiveness and performance.

### **Conclusion**

This dissertation introduced the theory of team role shifting, which used a grounded theory approach to provide new insights into the process behind how an individual engages in team role shifting, and identified four types of unique facilitators and barriers of team role shifting - interpersonal, structural, psychological, and experiential. These theoretically-based facilitators and barriers were then used to create the 20-item TRSM, which received support for the use of the TRSM as a practical

psychometric diagnostic tool. Future research should continue to understand the nomological network and psychometric properties of the TRSM.

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## Appendix A: Semi-Structured Interview Script

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### Semi-Structured Interview Script

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- 1) Describe the project teams you currently work on or recently have worked on.
    - *If interviewee has multiple examples, prompt them to focus on one example for the questions below*
    - *Ask them to begin with the team they have worked on the longest or most recently first*
- 

Begin at Question #2 for each subsequent team discussed

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- 2) How would you describe your role on this team?
    - *What type of work are you expected to do on the team?*
    - *How do you usually interact with your other teammates (e.g., do you keep people on track, come up with ideas, keep the peace?)*
  - 3) What are the aspects of your role that you like?
  - 4) What are the aspects of your role that you dislike?
  - 5) Have you ever wanted to role shift? If yes, what would you like to be different about your role?
  - 6) How did you attempt to role shift?
  - 7) What happened after you attempted to role shift?
  - 8) Were there any additional attempts to role change after?
  - 9) How did you feel about the outcome of your attempt to role shift? What do you think made this attempt successful/unsuccessful?
    - *What if anything were *barriers* for you in attempting to role shift?*
    - *What if anything were *facilitators* for you in attempting to role shift?*
-

**Appendix B: Interviewee Demographic Information**

1. How many years have you been employed at your current organization?, prefer not to say
2. What is your age?, prefer not to say
3. What is your gender? (Select) Female, Male, Non-binary, prefer not to say
4. What is your race? (Select) Asian, Black/African-American, Hispanic/Latino, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, White/Caucasian, Bi/Multi-racial, prefer not to say

### Appendix C: TRSM Items & Descriptive Statistics

To rate the following statements on a scale of 1 (*Strongly Disagree*) to 5 (*Strongly Agree*), **think of a team you are on at your workplace and the role you have in it.**

To help choose a team for reference, below are the key components of a work team:

- A work team consists of **2 or more people**
- Those on the team **work together** toward a **common goal(s)**

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
(Barrier)	-	-	-	(Facilitator)

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#### *Descriptive Statistics of 84-Item TRSM*

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##### Interpersonal

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	<u>Item</u>	<u>N</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>SD</u>
I1.	The rapport I have with my teammates makes it easier for me to grow in my team role.	250	2	5	4.09	0.671
I2.	My teammates support me when I want to make changes to my team role.	250	1	5	3.76	0.817
<b>I3.</b>	<b>My team leader supports me when I want to make changes to my team role.</b>	249	1	5	3.69	0.820
I4.	The interpersonal relationship I have with my team leader makes it difficult for me to develop in my team role. (R)	249	1	5	3.59	0.985
I5.	My teammates oppose me when I suggest changes I want to make to my team role. (R)	249	1	5	3.83	0.825
<b>I6.</b>	<b>My team leader opposes me when I suggest changes I want to make to my team role. (R)</b>	250	1	5	3.64	0.947



I7.	I feel comfortable asking my manager clarifying questions about my role on this team.	249	1	5	4.06	0.892
<b>I8.</b>	<b>My manager is open-minded to my ideas about making changes to my team role.</b>	250	1	5	3.63	1.030
<b>I9.</b>	<b>My manager searches for ways I can learn more in my team role.</b>	250	1	5	3.55	1.014
I10.	My manager provides me with formal development plans to improve in my team role.	250	1	5	3.29	1.085
I11.	My manager believes I am progressing quickly in my role on this team.	250	1	5	3.56	0.877
<b>I12.</b>	<b>My manager allows me to seek out my own development opportunities in my team role.</b>	250	1	5	3.60	1.002
I13.	My teammates act in ways that support my goals to improve in my team role.	250	1	5	3.68	0.822
I14.	My team role requires me to regularly collaborate with my teammates.	249	1	5	4.04	0.830
I15.	My teammates suggest ways I can learn more in my team role.	249	1	5	3.41	0.894
I16.	My teammates respect the work I do in my team role.	250	1	5	4.06	0.725
I17.	My teammates are invested in my role development on this team.	250	1	5	3.47	0.892
I18.	My teammates provide useful feedback on how I can improve in my team role.	249	1	5	3.68	0.921

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Structural

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<u>Item</u>	<u>N</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>SD</u>
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S1.	The structure of my team makes it difficult to make any changes in my role that I would like to make. (R)	250	1	5	3.25	1.077
<b>S2.</b>	<b>My team is set up in a way that allows me the flexibility to explore my own interests in my role.</b>	249	1	5	3.53	0.984
S3.	My team role responsibilities make it hard for me to take on work I am interested in doing. (R)	250	1	5	3.36	1.014
S4.	My team's structure makes it easy for me to improve in my role.	250	1	5	3.64	0.859
S5.	The way my team is structured makes it possible for me to explore new work opportunities in my role.	249	1	5	3.39	1.026
S6.	My team structure blocks me from taking on more challenging opportunities in my role. (R)	250	1	5	3.41	1.091
S7.	My team role has a heavy workload. (R)	249	1	5	2.36	0.941
S8.	My team culture values overworking in this role (e.g., working at off-hours, working more than 40 hours/week). (R)	249	1	5	2.96	1.167
S9.	I am expected to compensate for my poor-performing teammates, even if the work is not part of my team role. (R)	249	1	5	2.93	1.155
S10.	My team role requires me to complete an overwhelming amount of work. (R)	249	1	5	2.88	1.059
S11.	My team role has an ideal amount of work.	249	1	5	3.12	1.007

S12.	My team role has a light workload.	248	1	5	2.22	1.016
S13.	I understand my team role.	250	1	5	4.34	0.600
S14.	I understand why I have this role on my team.	250	2	5	4.29	0.644
S15.	I understand how the roles of my teammates relate to my team role.	250	2	5	4.17	0.679
S16.	I am unclear about what my role is on this team. (R)	250	1	5	4.23	0.836
S17.	I am unclear about how to carry out work in my team role. (R)	249	1	5	4.24	0.792
S18.	I am confused about the value of my role on this team. (R)	250	1	5	4.23	0.821
<b>S19.</b>	<b>My team role provides me the flexibility to explore my own interests.</b>	250	1	5	3.46	0.982
S20.	My team role restricts me from doing the work I want to do. (R)	250	1	5	3.44	1.021
<b>S21.</b>	<b>I have the power to change aspects of my team role.</b>	249	1	5	3.18	1.039
<b>S22.</b>	<b>My team is structured in a way that makes it difficult to improve in my team role. (R)</b>	248	1	5	3.36	1.017
S23.	My team role provides flexibility in my work.	250	1	5	3.45	0.981
<b>S24.</b>	<b>My team role gives me room to explore work I am interested in.</b>	250	1	5	3.34	0.956

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Psychological

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	<u>Item</u>	<u>N</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>SD</u>
P1.	My concern for my teammates gets in the way of me making	250	1	5	3.30	0.966

	the changes I want for my own team role. (R)					
P2.	I am too worried about disrupting my teammates roles to make the changes I want to make to my team role. (R)	249	1	5	3.30	0.967
<b>P3.</b>	<b>I take the necessary steps to make the changes I want to make in my team role.</b>	249	1	5	3.51	0.871
P4.	I avoid making changes to my team role even if I want to make changes to it. (R)	247	1	5	3.29	0.989
P5.	It is important to me that my team role development occurs, even if it is at the expense of another teammates' role development.	249	1	5	2.85	0.979
P6.	I am the only barrier to improving in my team role. (R)	248	1	5	3.36	1.067
P7.	I work hard to carry out my team role so I do not let my teammates down. (R)	250	1	5	1.87	0.722
P8.	I take on work outside of my team role to help preserve the well-being of my teammates. (R)	250	1	5	2.53	0.978
P9.	When I am overwhelmed in my team role I delegate some of my work to my teammates.	250	1	5	3.06	1.024
P10.	If my teammate is overwhelmed in their role I help them - even if I am equally overwhelmed in mine. (R)	250	1	5	2.32	0.897
P11.	I refuse interesting work related to my team role if another teammate expresses interest in it too. (R)	250	1	5	3.35	0.907
P12.	I feel obligated to take on work unrelated to my team role when	249	1	5	3.24	1.028

	my teammates are disinterested in it. (R)					
<b>P13.</b>	<b>I fear that my team will dislike it if I ask to try new types of work or opportunities while in my current team role. (R)</b>	249	1	5	3.38	1.010
P14.	I am anxious about carrying out my team role perfectly. (R)	249	1	5	2.83	1.160
P15.	I dislike receiving feedback about my team role performance. (R)	249	1	5	3.78	0.958
P16.	I welcome feedback about my role progress on this team.	249	1	5	3.95	0.773
P17.	I enjoy work in my team role that develops my skills.	249	2	5	4.06	0.696
<b>P18.</b>	<b>I am confident I will succeed in the role development opportunities I carry out on this team.</b>	249	1	5	3.86	0.771
P19.	I only set new professional goals for my team role during performance reviews. (R)	250	1	5	3.16	0.929
P20.	I only take on new opportunities in my team role if they serve my professional goals.	250	1	5	2.79	0.947
P21.	I demonstrate new skills I have developed to improve in my team role whenever I can.	250	1	5	3.82	0.734
<b>P22.</b>	<b>I determine what I want to change about my team role and seek out new ways to achieve them.</b>	249	1	5	3.53	0.773
<b>P23.</b>	<b>If I want to change something about my team role it is my responsibility to make it happen.</b>	250	1	5	3.43	0.943

P24.	I self-select into new training opportunities if they can help me make desired changes to my team role.	250	1	5	3.63	0.851
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Experiential

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	<u>Item</u>	<u>N</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>SD</u>
<b>E1.</b>	<b>I have much experience in my team role.</b>	250	1	5	3.69	0.968
<b>E2.</b>	<b>I have little experience in my team role. (R)</b>	250	1	5	3.73	1.012
E3.	I am familiar with what the other roles on my team do.	250	1	5	4.08	0.681
E4.	I am unfamiliar with what the other roles on my team do. (R)	250	1	5	4.10	0.765
E5.	I am comfortable with my team role.	250	2	5	4.01	0.637
E6.	I am uncomfortable with my team role. (R)	250	2	5	4.09	0.747
E7.	I know each of my team members preferred ways of carrying out their team roles.	247	1	5	3.77	0.791
E8.	I am in the process of learning how to coordinate my team role with those of my teammates. (R)	246	1	5	2.69	0.966
E9.	My teammates and I are unsure how to best collaborate across our roles. (R)	247	1	5	3.62	0.976
E10.	I understand how to best coordinate my role with other roles on the team.	247	1	5	3.77	0.771
E11.	The types of roles on this team remain consistent.	245	1	5	3.71	0.856
E12.	I am exploring how the roles of my teammates relate to my own role on this team. (R)	246	1	5	2.59	0.866

<b>E13. I am new to my team role. (R)</b>	249	1	5	3.82	1.109
E14. I have a lot to learn about the work required of me in my team role. (R)	248	1	5	3.18	1.111
E15. I know exactly what I need to do to develop in my team role.	249	1	5	3.74	0.807
<b>E16. I consider myself an expert in my team role.</b>	249	1	5	3.11	1.075
<b>E17. I have extensive training and/or experience in my team role.</b>	249	1	5	3.42	1.009
E18. I am unsure what steps I should take to improve in my team role. (R)	249	1	5	3.57	1.014

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*Note.* R indicates items that are reverse scored. **Bolded items** were included in the updated version of the TRSM.

### Appendix D: Big Five Aspects Scale

(John et al., 2008)

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

#### Neuroticism - Volatility

1. Get angry easily.
2. Get upset easily.
3. Change my mood a lot.
4. Am a person whose moods go up and down easily.
5. Get easily agitated.
6. Can be stirred up easily.
7. Rarely get irritated. (R)
8. Keep my emotions under control. (R)
9. Rarely lose my composure. (R)
10. Am not easily annoyed. (R)

#### Neuroticism - Withdrawal

1. Am filled with doubts about things.
2. Feel threatened easily.
3. Worry about things.
4. Am easily discouraged.
5. Become overwhelmed by events.
6. Am afraid of many things.
7. Seldom feel blue. (R)
8. Feel comfortable with myself. (R)
9. Rarely feel depressed. (R)
10. Am not embarrassed easily. (R)

#### Extraversion - Enthusiasm

1. Make friends easily.
2. Warm up quickly to others.
3. Show my feelings when I'm happy.
4. Have a lot of fun.
5. Laugh a lot.
6. Am hard to get to know. (R)



7. Keep others at a distance. (R)
8. Reveal little about myself. (R)
9. Rarely get caught up in the excitement. (R)
10. Am not a very enthusiastic person. (R)

Extraversion - Assertiveness

1. Take charge.
2. Have a strong personality.
3. Know how to captivate people.
4. See myself as a good leader.
5. Can talk others into doing things.
6. Am the first to act.
7. Do not have an assertive personality. (R)
8. Lack the talent for influencing people. (R)
9. Wait for others to lead the way. (R)
10. Hold back my opinions. (R)

### Appendix E: Short-Form Perceived Organizational Support Scale

(Rhoades & Eisenberger, 2002)

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

1. The organization values my contribution to its well-being.
3. The organization fails to appreciate any extra effort from me. (R)
7. The organization would ignore any complaint from me. (R)
9. The organization really cares about my well-being.
17. Even if I did the best job possible, the organization would fail to notice. (R)
21. The organization cares about my general satisfaction at work.
23. The organization shows very little concern for me. (R)
27. The organization takes pride in my accomplishments at work.

### Appendix F: Job Satisfaction Scale

Job Satisfaction Scale (MacDonald & McIntyre 1997)

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

1. I receive recognition for a job well done.
2. I feel close to the people at work.
3. I feel good about working at this company.
4. I feel secure about my job.
5. I believe management is concerned about me.
6. On the whole, I believe work is good for my physical health.
7. My wages are good.
8. All my talents and skills are used at work.
9. I get along with my supervisors.
10. I feel good about my job.

## Appendix G: Psychological Safety

(Edmondson, 1999)

Rated on a 7-point scale (1 = *Strongly Disagree*; 7 = *Strongly Agree*)

1. If you make a mistake on this team, it is often held against you. (R)
2. Members of this team are able to bring up problems and tough issues.
3. People on this team sometimes reject others for being different. (R)
4. It is safe to take a risk on this team.
5. It is difficult to ask other members of this team for help. (R)
6. No one on this team would deliberately act in a way that undermines my efforts.
7. Working with members of this team, my unique skills and talents are valued and utilized.

**Appendix H: TWLQ**

(Sellers et al., 2014)

Rated on an 11-point scale (0 = *Very Low*, 10 = *Very High*)

1. Emotion Demand – How much did you have to control your emotions (e.g. anger, joy, disappointment)?
2. Performance Monitor Demand– How much did the task require you to monitor your performance (i.e., ensure you were performing at specific levels)?
3. Communication Demand – How much communication activity was required (e.g. discussing, negotiating, sending and receiving messages, etc.)?
4. Coordination Demand – How much coordination activity was required (e.g. correction, adjustment, etc.)?
5. Time Share Demand - How difficult was it to share and manage time between task-work (work done individually) and team-work (work done as a team)?
6. Team Effectiveness - How successful do you think the team was in working together?
7. Team Support (Interpersonal - Team Support) - How difficult was it to provide and receive support (providing guidance, helping team members, providing instructions, etc.) from team members?
8. Team Dissatisfaction - How irritated and annoyed were you with your team?
9. Team Emotion Demand - How emotionally demanding was working in the team?
10. Team Performance Monitoring Demand - How much did the task require you to monitor your team's performance?

## Appendix I: Team Diagnostic Survey

(Wageman et al., 2006)

1	2	3	4	5
Highly Inaccurate	Somewhat Inaccurate	In Between Inaccurate / Accurate	Somewhat Accurate	Highly Accurate

### **Real Team**

#### Bounded

1. Team membership is quite clear—everybody knows exactly who is and isn't on this team.
2. There is so much ambiguity about who is on this team that it would be nearly impossible to generate an accurate membership list. (R)
3. Anyone who knows this team could accurately name all its members.

#### Stable

1. Different people are constantly joining and leaving this team. (R)
2. This team is quite stable, with few changes in membership.

#### Interdependent

1. Members of this team have their own individual jobs to do, with little need for them to work together. (R)
2. Generating the outcome or product of this team requires a great deal of communication and coordination among members.
3. Members of this team have to depend heavily on one another to get the team's work done.

### **Compelling Direction**

#### Clear

1. There is great uncertainty and ambiguity about what this team is supposed to accomplish. (R)
2. This team's purposes are specified so clearly that all members should know exactly what the team exists to accomplish.

#### Challenging

1. This team's purposes are so challenging that members have to stretch to accomplish them.
2. This team's purposes are not especially challenging—achieving them is well within reach. (R)

## **Enabling Structure**

### Size

1. This team is larger than it needs to be. (R)
2. This team has too few members for what it has to accomplish. (R)
3. This team is just the right size to accomplish its purposes.

### Skills

1. Members of this work team have more than enough talent and experience for the kind of work that we do.
2. Everyone in this team has the special skills that are needed for team work.
3. Some members of this team lack the knowledge and skills that they need to do their parts of the team's work. (R)

### Autonomy/Judgment

1. The work of this team leaves little room for the exercise of judgment or initiative. (R)
2. The work we do requires the team to make many "judgment calls" as we carry it out.

### Group Norms

1. Standards for member behavior in this team are vague and unclear. (R)
2. It is clear what is—and what is not—acceptable member behavior in this team.
3. Members of this team agree about how members are expected to behave.

## **Available, Expert Coaching**

### Coaching Availability

1. When members of teams in this organization have trouble working together, there is no one available to help them out. (R)
2. Teams in this organization have access to "coaches" who can help them learn from their successes and mistakes.
3. Expert coaches are readily available to teams in this organization.

## **Team Interpersonal Processes**

### Quality of Team Interaction

1. There is a lot of unpleasantness among members of this team. (R)
2. The longer we work together as a team, the less well we do. (R)
3. Working together energizes and uplifts members of our team.
4. Every time someone attempts to correct a team member whose behavior is not acceptable, things seem to get worse rather than better. (R)

#### Satisfaction With Team Relationships

1. My relations with other team members are strained. (R)
2. I very much enjoy talking and working with my teammates.
3. The chance to get to know my teammates is one of the best parts of working on this team.

#### **Individual Learning and Well-Being**

##### Satisfaction With Growth Opportunities

1. I learn a great deal from my work on this team.
2. My own creativity and initiative are suppressed by this team. (R)
3. Working on this team stretches my personal knowledge and skills.



**Appendix J: 63-Item CFA Results – Four Factor Model**

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*63-Item Four Factor Model - CFA Results*

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Latent Variables

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<u>Item</u>	<u>Estimate</u>	<u>SE</u>	<u>z-value</u>	<u>P(&gt; z )</u>
I1.	0.31	0.05	6.73	0.00
I2.	0.50	0.05	9.76	0.00
I3.	0.57	0.05	11.30	0.00
I4.	0.51	0.07	7.84	0.00
I5.	0.40	0.05	7.64	0.00
I6.	0.63	0.06	10.86	0.00
I7.	0.51	0.06	9.16	0.00
I8.	0.83	0.06	13.96	0.00
I9.	0.63	0.06	9.94	0.00
I11.	0.53	0.06	9.63	0.00
I12.	0.74	0.06	12.56	0.00
I13.	0.51	0.05	10.33	0.00
I14.	0.28	0.06	5.00	0.00
I16.	0.37	0.05	8.32	0.00
I18.	0.49	0.06	8.37	0.00
S1.	0.65	0.07	9.84	0.00
S2.	0.72	0.06	12.52	0.00
S3.	0.51	0.06	8.01	0.00
S4.	0.53	0.05	10.28	0.00
S5.	0.69	0.06	11.00	0.00
S6.	0.70	0.07	10.58	0.00
S12.	-0.09	0.07	-1.25	0.21

S13.	0.19	0.04	4.70	0.00
S14.	0.26	0.04	6.10	0.00
S15.	0.29	0.04	6.56	0.00
S16.	0.32	0.05	5.98	0.00
S17.	0.30	0.05	6.01	0.00
S18.	0.37	0.05	7.12	0.00
S19.	0.78	0.06	13.97	0.00
S20.	0.69	0.06	11.53	0.00
S21.	0.73	0.06	11.77	0.00
S22.	0.71	0.06	11.64	0.00
S23.	0.68	0.06	11.35	0.00
S24.	0.73	0.06	13.05	0.00
P1.	0.09	0.07	1.26	0.21
P3.	0.45	0.06	7.51	0.00
P4.	0.38	0.07	5.52	0.00
P7.	-0.41	0.05	-8.64	0.00
P8.	-0.40	0.07	-5.92	0.00
P10.	-0.36	0.06	-5.77	0.00
P13.	0.43	0.07	6.14	0.00
P15.	0.35	0.07	5.14	0.00
P16.	0.39	0.05	7.66	0.00
P17.	0.41	0.05	9.06	0.00
P18.	0.50	0.05	9.88	0.00
P21.	0.35	0.05	7.48	0.00
P22.	0.42	0.05	8.50	0.00
P23.	0.43	0.06	6.76	0.00
E1.	0.78	0.06	14.13	0.00

E2.	0.84	0.06	14.55	0.00
E4.	0.38	0.05	7.56	0.00
E5.	0.36	0.04	8.79	0.00
E6.	0.42	0.05	8.67	0.00
E7.	0.34	0.05	6.57	0.00
E9.	0.29	0.07	4.34	0.00
E10.	0.31	0.05	6.00	0.00
E11.	0.24	0.06	4.05	0.00
E13.	0.72	0.07	10.82	0.00
E14.	0.62	0.07	8.91	0.00
E15.	0.47	0.05	9.35	0.00
E16.	0.77	0.06	12.11	0.00
E17.	0.74	0.06	12.38	0.00
E18.	0.47	0.07	7.04	0.00

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Covariances

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	<u>Estimate</u>	<u>SE</u>	<u>z-value</u>	<u>P(&gt; z )</u>
I-S	0.86	0.02	35.09	0.00
I-P	0.69	0.05	14.75	0.00
I-E	0.40	0.06	6.43	0.00
S-P	0.68	0.05	14.81	0.00
S-E	0.44	0.06	7.26	0.00
P-E	0.49	0.06	7.90	0.00

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Variances

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<u>Item</u>	<u>Estimate</u>	<u>SE</u>	<u>z-value</u>	<u>P(&gt; z )</u>
I1.	0.39	0.04	10.43	0.00
I2.	0.42	0.04	10.12	0.00
I3.	0.38	0.04	9.86	0.00

I4.	0.75	0.07	10.34	0.00
I5.	0.49	0.05	10.36	0.00
I6.	0.51	0.05	9.95	0.00
I7.	0.52	0.05	10.20	0.00
I8.	0.41	0.05	9.11	0.00
I9.	0.66	0.07	10.10	0.00
I11.	0.51	0.05	10.14	0.00
I12.	0.46	0.05	9.57	0.00
I13.	0.38	0.04	10.04	0.00
I14.	0.61	0.06	10.54	0.00
I16.	0.35	0.03	10.29	0.00
I18.	0.59	0.06	10.29	0.00
S1.	0.73	0.07	10.22	0.00
S2.	0.45	0.05	9.80	0.00
S3.	0.73	0.07	10.39	0.00
S4.	0.44	0.04	10.17	0.00
S5.	0.60	0.06	10.07	0.00
S6.	0.69	0.07	10.13	0.00
S12.	1.07	0.10	10.65	0.00
S13.	0.34	0.03	10.57	0.00
S14.	0.35	0.03	10.51	0.00
S15.	0.38	0.04	10.49	0.00
S16.	0.54	0.05	10.52	0.00
S17.	0.50	0.05	10.52	0.00
S18.	0.51	0.05	10.45	0.00
S19.	0.37	0.04	9.43	0.00
S20.	0.53	0.05	9.99	0.00

S21.	0.56	0.06	9.94	0.00
S22.	0.55	0.06	9.97	0.00
S23.	0.54	0.05	10.02	0.00
S24.	0.41	0.04	9.68	0.00
P1.	0.94	0.09	10.64	0.00
P3.	0.59	0.06	9.99	0.00
P4.	0.84	0.08	10.32	0.00
P7.	0.36	0.04	9.72	0.00
P8.	0.81	0.08	10.26	0.00
P10.	0.69	0.07	10.29	0.00
P13.	0.84	0.08	10.23	0.00
P15.	0.82	0.08	10.37	0.00
P16.	0.43	0.04	9.96	0.00
P17.	0.31	0.03	9.60	0.00
P18.	0.37	0.04	9.34	0.00
P21.	0.36	0.04	9.99	0.00
P22.	0.39	0.04	9.76	0.00
P23.	0.68	0.07	10.13	0.00
E1.	0.34	0.04	8.76	0.00
E2.	0.35	0.04	8.54	0.00
E4.	0.45	0.04	10.32	0.00
E5.	0.28	0.03	10.18	0.00
E6.	0.39	0.04	10.19	0.00
E7.	0.51	0.05	10.41	0.00
E9.	0.89	0.09	10.55	0.00
E10.	0.52	0.05	10.45	0.00
E11.	0.68	0.06	10.57	0.00

E13.	0.67	0.07	9.84	0.00
E14.	0.83	0.08	10.16	0.00
E15.	0.43	0.04	10.10	0.00
E16.	0.55	0.06	9.52	0.00
E17.	0.48	0.05	9.45	0.00
E18.	0.81	0.08	10.37	0.00
I.	1.00			
S.	1.00			
P.	1.00			
E.	1.00			

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*Note.*  $N = 227$

**Appendix K: 63-Item CFA Results – One Factor Model**

<i>63-Item One Factor Model - CFA Results</i>				
Latent Variables				
<u>Item</u>	<u>Estimate</u>	<u>SE</u>	<u>z-value</u>	<u>P(&gt; z )</u>
I1.	0.36	0.04	8.12	0.00
I2.	0.48	0.05	9.45	0.00
I3.	0.50	0.05	9.85	0.00
I4.	0.47	0.06	7.25	0.00
I5.	0.42	0.05	8.18	0.00
I6.	0.57	0.06	9.73	0.00
I7.	0.51	0.06	9.28	0.00
I8.	0.70	0.06	11.27	0.00
I9.	0.52	0.07	7.95	0.00
I11.	0.51	0.06	9.17	0.00
I12.	0.64	0.06	10.59	0.00
I13.	0.48	0.05	9.83	0.00
I14.	0.32	0.05	5.96	0.00
I16.	0.38	0.04	8.74	0.00
I18.	0.45	0.06	7.81	0.00
S1.	0.56	0.07	8.31	0.00
S2.	0.63	0.06	10.72	0.00
S3.	0.49	0.06	7.73	0.00
S4.	0.53	0.05	10.33	0.00
S5.	0.56	0.06	8.73	0.00
S6.	0.63	0.07	9.43	0.00
S12.	-0.18	0.07	-2.56	0.01
S13.	0.30	0.04	7.56	0.00

S14.	0.35	0.04	8.49	0.00
S15.	0.38	0.04	9.08	0.00
S16.	0.41	0.05	8.14	0.00
S17.	0.41	0.05	8.60	0.00
S18.	0.48	0.05	9.65	0.00
S19.	0.65	0.06	11.00	0.00
S20.	0.60	0.06	9.89	0.00
S21.	0.65	0.06	10.26	0.00
S22.	0.64	0.06	10.30	0.00
S23.	0.56	0.06	8.99	0.00
S24.	0.60	0.06	10.17	0.00
P1.	0.10	0.07	1.48	0.14
P3.	0.40	0.06	7.00	0.00
P4.	0.41	0.06	6.34	0.00
P7.	-0.38	0.05	-8.22	0.00
P8.	-0.31	0.07	-4.68	0.00
P10.	-0.26	0.06	-4.36	0.00
P13.	0.47	0.06	7.22	0.00
P15.	0.29	0.06	4.55	0.00
P16.	0.30	0.05	6.04	0.00
P17.	0.32	0.04	7.28	0.00
P18.	0.41	0.05	8.43	0.00
P21.	0.22	0.05	4.68	0.00
P22.	0.28	0.05	5.72	0.00
P23.	0.35	0.06	5.76	0.00
E1.	0.34	0.06	5.36	0.00
E2.	0.38	0.07	5.69	0.00



E4.	0.31	0.05	6.33	0.00
E5.	0.43	0.04	11.24	0.00
E6.	0.51	0.05	11.52	0.00
E7.	0.32	0.05	6.25	0.00
E9.	0.41	0.06	6.32	0.00
E10.	0.41	0.05	8.37	0.00
E11.	0.21	0.06	3.60	0.00
E13.	0.28	0.07	3.87	0.00
E14.	0.19	0.07	2.62	0.01
E15.	0.42	0.05	8.20	0.00
E16.	0.42	0.07	6.09	0.00
E17.	0.41	0.07	6.26	0.00
E18.	0.46	0.07	7.01	0.00

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Variances

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<u>Item</u>	<u>Estimate</u>	<u>SE</u>	<u>z-value</u>	<u>P(&gt; z )</u>
I1.	0.36	0.03	10.49	0.00
I2.	0.44	0.04	10.42	0.00
I3.	0.45	0.04	10.39	0.00
I4.	0.79	0.08	10.53	0.00
I5.	0.48	0.05	10.49	0.00
I6.	0.58	0.06	10.40	0.00
I7.	0.52	0.05	10.43	0.00
I8.	0.60	0.06	10.28	0.00
I9.	0.80	0.08	10.50	0.00
I11.	0.54	0.05	10.43	0.00
I12.	0.60	0.06	10.33	0.00
I13.	0.41	0.04	10.39	0.00

I14.	0.58	0.06	10.57	0.00
I16.	0.34	0.03	10.46	0.00
I18.	0.62	0.06	10.50	0.00
S1.	0.84	0.08	10.48	0.00
S2.	0.56	0.05	10.32	0.00
S3.	0.75	0.07	10.51	0.00
S4.	0.44	0.04	10.35	0.00
S5.	0.75	0.07	10.46	0.00
S6.	0.78	0.08	10.42	0.00
S12.	1.05	0.10	10.64	0.00
S13.	0.29	0.03	10.51	0.00
S14.	0.30	0.03	10.47	0.00
S15.	0.31	0.03	10.44	0.00
S16.	0.47	0.05	10.49	0.00
S17.	0.42	0.04	10.46	0.00
S18.	0.42	0.04	10.40	0.00
S19.	0.55	0.05	10.30	0.00
S20.	0.63	0.06	10.39	0.00
S21.	0.66	0.06	10.36	0.00
S22.	0.64	0.06	10.36	0.00
S23.	0.69	0.07	10.44	0.00
S24.	0.58	0.06	10.37	0.00
P1.	0.94	0.09	10.65	0.00
P3.	0.63	0.06	10.54	0.00
P4.	0.82	0.08	10.56	0.00
P7.	0.39	0.04	10.48	0.00
P8.	0.88	0.08	10.60	0.00

P10.	0.75	0.07	10.61	0.00
P13.	0.80	0.08	10.53	0.00
P15.	0.85	0.08	10.61	0.00
P16.	0.49	0.05	10.57	0.00
P17.	0.37	0.04	10.53	0.00
P18.	0.44	0.04	10.47	0.00
P21.	0.44	0.04	10.60	0.00
P22.	0.49	0.05	10.58	0.00
P23.	0.74	0.07	10.58	0.00
E1.	0.83	0.08	10.59	0.00
E2.	0.90	0.09	10.58	0.00
E4.	0.49	0.05	10.56	0.00
E5.	0.23	0.02	10.28	0.00
E6.	0.30	0.03	10.25	0.00
E7.	0.53	0.05	10.56	0.00
E9.	0.82	0.08	10.56	0.00
E10.	0.45	0.04	10.48	0.00
E11.	0.69	0.07	10.63	0.00
E13.	1.10	0.10	10.62	0.00
E14.	1.18	0.11	10.64	0.00
E15.	0.48	0.05	10.48	0.00
E16.	0.96	0.09	10.57	0.00
E17.	0.85	0.08	10.56	0.00
E18.	0.82	0.08	10.54	0.00
F	1.00			

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*Note.*  $N = 227$

### Appendix L: 20-Item CFA Results – One Factor Model

<i>20-Item One Factor Model - CFA Results</i>				
Latent Variables				
<u>Item</u>	<u>Estimate</u>	<u>SE</u>	<u>z-value</u>	<u>P(&gt; z )</u>
I8.	0.77	0.06	12.99	0.00
I12.	0.77	0.06	13.57	0.00
I9.	0.56	0.06	8.99	0.00
I6.	0.53	0.06	9.08	0.00
I3.	0.55	0.05	11.33	0.00
S19.	0.77	0.05	14.17	0.00
S21.	0.77	0.06	13.01	0.00
S24.	0.74	0.05	13.75	0.00
S2.	0.71	0.06	12.91	0.00
S22.	0.66	0.06	11.01	0.00
P18.	0.37	0.05	7.46	0.00
P3.	0.42	0.06	7.54	0.00
P23.	0.36	0.06	5.93	0.00
P13.	0.47	0.06	7.45	0.00
P22.	0.29	0.05	5.84	0.00
E2.	0.23	0.07	3.46	0.00
E1.	0.23	0.06	3.63	0.00
E16.	0.32	0.07	4.61	0.00
E17.	0.29	0.07	4.41	0.00
E13.	0.10	0.07	1.35	0.18
Variances				
<u>Item</u>	<u>Estimate</u>	<u>SE</u>	<u>z-value</u>	<u>P(&gt; z )</u>

I8.	0.49	0.05	9.87	0.00
I12.	0.43	0.04	9.71	0.00
I9.	0.72	0.07	10.57	0.00
I6.	0.63	0.06	10.56	0.00
I3.	0.38	0.04	10.24	0.00
S19.	0.37	0.04	9.50	0.00
S21.	0.50	0.05	9.87	0.00
S24.	0.38	0.04	9.65	0.00
S2.	0.44	0.04	9.89	0.00
S22.	0.59	0.06	10.29	0.00
P18.	0.47	0.04	10.71	0.00
P3.	0.60	0.06	10.71	0.00
P23.	0.76	0.07	10.82	0.00
P13.	0.79	0.07	10.71	0.00
P22.	0.51	0.05	10.82	0.00
E2.	0.97	0.09	10.93	0.00
E1.	0.88	0.08	10.92	0.00
E16.	1.04	0.10	10.88	0.00
E17.	0.93	0.09	10.89	0.00
E13.	1.16	0.11	10.97	0.00
F	1.00			

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*Note.* F = Single Factor

### Appendix M: Descriptive Statistics for Existing Scale Measures

<i>Descriptive Statistics for Existing Scale Measures</i>						
<u>Measure</u>	<u>N</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>SD</u>	
BFAS - Neuroticism	250	1.05	4.95	2.72	0.67	
BFAS - Extraversion	250	1.55	4.60	3.38	0.60	
Job Satisfaction	250	1.30	4.90	3.45	0.59	
Psychological Safety	250	1.86	5.00	3.55	0.63	
Psychological Collectivism (Concern)	250	1.00	5.00	3.98	0.72	
Perceived Organizational Support	250	1.00	7.00	4.63	1.31	
TDS (Real Team)	250	1.00	5.00	3.93	0.76	
TDS (Satisfaction with Growth Opportunities)	250	1.83	4.83	3.62	0.64	
TDS (Clear)	248	1.00	5.00	3.92	0.98	
TDS (Challenging)	248	1.00	5.00	3.09	0.92	
TDS (Size)	250	1.50	5.00	3.55	0.80	
TDS (Skills)	250	2.00	5.00	3.63	0.77	
TDS (Autonomy/Judgment)	250	1.00	5.00	3.28	0.84	
TDS (Group Norms)	250	1.67	5.00	3.87	0.82	
TDS (Coaching Availability)	250	1.00	5.00	3.03	0.99	
TDS (Quality of Team Interaction)	250	1.00	5.00	3.89	0.82	
TDS (Satisfaction with Team Relationships)	250	1.00	5.00	3.85	0.83	
TWLQ	250	1.89	9.00	5.43	1.20	

*Note.*  $N = 241$