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## HAVING NEWCOMERS IN DIVERSE TEAMS: THE EFFECTS OF SUBGROUP IDENTIFICATION AND ESTABLISHED FAULTLINES ON NEWCOMER INFORMATION SEEKING AND TEAM CREATIVITY

by

Xing Liu

Bachelor of Arts Tianjin Foreign Studies University, 2006

Master of Arts Tianjin Foreign Studies University, 2009

Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Philosophy in

**Business Administration** 

Darla Moore School of Business

University of South Carolina

2020

Accepted by:

Sherry M. B. Thatcher, Major Professor

Paul D. Bliese, Committee Member

Mark A. Maltarich, Committee Member

Sali Li, Committee Member

Cheryl L. Addy, Vice Provost and Dean of the Graduate School

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## DEDICATION

This dissertation is dedicated to my husband who is my best friend, my greatest

support, my biggest comfort, and who keeps me strong and watches me succeed.

## ACKNOWLEDGEMENTS

I sincerely thank my advisor Sherry Thatcher, committee members Paul Bliese, Mark Maltarich, and Sali Li for their guidance, help, support, and encouragement during my doctoral studies and the dissertation process. I would like to thank Lynn McFarland and Nichelle Carpenter for their help with data collection for my dissertation. Finally, I am also grateful to my coauthors Elizabeth Ravlin, Robert Ployhart, Jeff Savage, Jason Kautz, Jieun Park, and Christina Hymer for their support in different research projects.

## ABSTRACT

The current literature has demonstrated the importance of newcomers' information seeking on their socialization in teams and the consequences of newcomers on team outcomes such as team creativity. However, there is limited knowledge on the antecedents of newcomer information seeking and team creativity in diverse teams after the entry of a newcomer. In this dissertation, with a focus on newcomers in diverse teams, I investigated two phenomena at the individual level and team level, respectively. At the individual level, I explored the influence of newcomers' subgroup identification on information seeking via their feelings of psychological safety and the role of their perceived established faultlines and conflict that exist among team incumbents. I investigated these relationships using longitudinal data over three time periods on a sample of 72 newcomers in multiple organizations in various industries in the U.S. Results of data analyses showed that newcomers' subgroup identification and team identification jointly impact their psychological safety. Additionally, I demonstrated that task-related information seeking and social information seeking are two separate processes that may have distinct antecedents.

At the team level, I explored the relationship between established faultlines, information elaboration between incumbents and newcomers, and team creativity. Specifically, I investigated the direct relationships between established faultlines, incumbents' knowledge sharing with the newcomer, incumbents' reflective reframing on the newcomer's ideas, and team creativity. Additionally, I examined the indirect effects

v

of established faultlines on team creativity via incumbents' knowledge sharing and reflective reframing. I collected data through conducting an experiment with a sample of 197 undergraduate students composing 40 teams from the business school at a large university in the U.S. I found that team incumbents' knowledge sharing with the newcomer and their reflective reframing on the newcomer's unique insights were positively related to team creativity. This finding provides support to the idea that a key to team creativity upon the entry of a newcomer is team incumbents' interaction with the newcomer. This dissertation contributes to the literatures on newcomer information seeking, member change associated with newcomers in teams, and team faultlines by building our knowledge on newcomers' information seeking and team creativity.

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### CHAPTER 1

#### INTRODUCTION

Nowadays organizations face an increased prevalence of teams (Spoelma & Ellis, 2017), particularly diverse teams (Srikanth, Harvey, & Peterson, 2016; van Knippenberg & Mell, 2016), a constant churn of mobile employees and the resulting changes of membership in teams (Argote & Ingram, 2000). In general, member change in teams can be caused by the entry of new employees (i.e., newcomers) or the departure of employees (i.e., employee turnover), which is usually followed by the entry of newcomers as a result of an effort to minimize workload burden on remaining team members. Although researchers have become increasingly aware of the importance of understanding member change associated with newcomers in teams (e.g., Ellis, Nifadkar, Bauer, & Erdogan, 2017), these is little knowledge about the individual-level and team-level processes and outcomes related to having newcomers in diverse teams. Research has provided consistent evidence showing that team diversity impacts team processes such as team conflict and information exchange between team members, which in turn affect team outcomes such as team performance, decision making, and team creativity (e.g., Srikanth et al., 2016; van Knippenberg & Mell, 2016). These findings indicate that social dynamics among members in diverse teams are much more complex than those among members in homogenous teams. However, most research on team diversity implicitly assumes that team membership is stable and also overlooks the significance of understanding the individual-level and team-level processes associated with newcomers.

Therefore, in this dissertation, I investigate the individual-level and team-level processes and outcomes associated with the entry of newcomers in diverse teams. Very broadly, I am interested in understanding the following two phenomena: (1) newcomers' proactive adjustment in diverse teams (individual level), and (2) the consequence of the entry of newcomers in diverse teams (team level).

At the individual level, newcomer socialization or adjustment in a team is a process where a newcomer acquires knowledge, skills, and abilities related to his or her job, builds connections with others, and transits from being an outsider to an insider of the team (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007; Ellis, Bauer, Mansfield, Erdogan, Truxillo, & Simon, 2015). Newcomers' adjustment experiences have impacts on their job attitudes, performance, and turnover (Bauer et al. 2007; Saks, Uggerslev, & Fassi, 2007). An important component of this adjustment process is newcomers' proactive information seeking through which newcomers make sense of their tasks and their team (De Vos & Freese, 2011; Morrison, 1993; Saks, Gruman, & Cooper-Thomas, 2011). Information seeking has been demonstrated to positively influence newcomers' adjustment outcomes such as task mastery, job performance, job satisfaction, social adjustment, and turnover intention (Bauer et al., 2007; Kammeyer-Mueller, Wanberg, Rubenstein, & Song, 2013; Nifadkar & Bauer, 2016; Nifadkar, Tsui, & Ashforth, 2012; Saks, Gruman, & Cooper-Thomas, 2011; Tan, Au, Cooper-Thomas, Aw, 2016; Yu & Davis, 2016). Prior studies have explored the antecedents of newcomer information seeking (e.g., curiosity, Harrison, Sluss, & Ashford, 2011; proactive personality, Kammeyer-Mueller, Livingston, & Liao, 2011; desire for control, Ashford & Black, 1996; and learning goal orientation, Tan et al., 2016). However, there is limited

knowledge about the unique antecedents of information seeking for newcomers who enter diverse teams. One exception is Kammeyer-Mueller and colleagues' (2011) study that examines the relationship between newcomers' demographic similarity with their team and their information seeking. Therefore, in this dissertation, I conducted an empirical study to explore the antecedents of newcomer information seeking in diverse teams. Specifically, with a focus on newcomer information seeking from team incumbents, this study investigates how newcomers' identification with a subgroup of team incumbents affects their information seeking. In this dissertation, team incumbents refer to individuals who are part of the team before the entry of a newcomer and have achieved socialization in the team, meaning that they are no longer newcomers (also called "old-timers", e.g., Rink, Kane, Ellemers, & van der Vegt, 2013, 2017). I argue that subgroup identification has an indirect relationship with newcomer information seeking via their feelings of psychological safety. Additionally, I argue that newcomers' sensemaking of the social structure and social relations among team incumbents affects the subgroup identification–psychological safety–information seeking relationship.

At the team level, a growing body of evidence shows that teams can benefit from having newcomers in terms of team performance (Arrow & McGrath, 1993; Baer, Leenders, Oldham, & Vadera, 2010; Gorman, & Cooke, 2011; Hirst, 2009; Lewis, Belliveau, Herndon, & Keller, 2007; Nemeth & Ormiston, 2007; Perretti & Negro, 2007). In particular, this line of research suggests member change associated with newcomers has a stimulating effect on team creativity (e.g., Choi & Thompson, 2005; Gruenfeld, Martora, & Fan, 2000; Ziller, Behringer, & Goodchilds, 1962). Some researchers argue that because newcomers are often numeric minorities in teams they may prompt members to view things from different perspectives and stimulate cognitive effort in developing new ideas through providing dissenting or unique insights (i.e., minority dissent; Choi & Levine, 2004; Gruenfeld & Fan, 1999; Gruenfeld et al., 2000; Levine, Choi, & Moreland, 2003). Other research suggests that the entry of newcomers is likely to stimulate team creativity above and beyond the effect of newcomers' dissenting ideas and teams may benefit from having newcomers through the interaction between newcomers and team incumbents (Choi & Thompson, 2005; Gorman, & Cooke, 2011; Phillips, Liljenquist, & Neale, 2009). However, there is limited knowledge on the antecedents of the interaction between newcomers and team incumbents or how such interactions influence creativity of teams, particularly diverse teams. In this dissertation, I argue that the established social structure among team incumbents affects the social interaction between newcomers and team incumbents, which in turn influences team creativity.

Overall, this dissertation makes several contributions to the current literature on newcomers in teams. First, at the individual level, rather than emphasizing the importance of newcomers' demographic similarity with their team, I explain how newcomers' identification with a subgroup of team incumbents influences their information seeking. When an individual becomes a new member of a team, it often takes time for the person to develop identification with the overall team. However, according to self-categorization theory, a newcomer may quickly identify with a subgroup of incumbents with whom the person shares more similarities compared to other incumbents in the team. Identifying with a group of similar others allows individuals to feel more confident in the appropriateness of their personal perceptions, attitudes, and behaviors (Hogg 2000), anticipate supports and help from those others, and feel psychologically

safe (Lau & Murnighan, 2005). Thus, newcomers' identification with a subgroup of team incumbents will be positively related to their feelings of psychological safety. Psychological safety is a feeling of being able to behave without the fear of negative consequences (Kahn, 1990). When newcomers feel psychologically safety, they will be less worried about being rejected or viewed negatively by team incumbents (i.e., social cost of information seeking, Kammeyer-Mueller et al., 2010; Miller & Jablin, 1991), leading to more information seeking. Therefore, I hypothesize that newcomers' subgroup identification is positively related to their information seeking from team incumbents via their feelings of psychological safety.

Second, I emphasize the consequences of established social structure among team incumbents at both the individual and team levels. Specifically, I focus on established faultlines among team incumbents. Faultlines in teams refer to dividing lines that split a team into two or more subgroups based on team members' multiple attributes (adapted from Lau & Murnighan, 1998). Current faultline research has focused on understanding the consequences of faultlines that exist within the whole team and assumes no changes in team membership. Building on the conceptualization of faultlines as a sensemaking structure (Antino, Rico, & Thatcher, 2019), I argue that established faultlines that exist among team incumbents allows the newcomer to make sense of the social structure among team incumbents. Specifically, I argue that newcomers' perception of established faultlines moderates the subgroup identification–psychological safety–information seeking relationship. I argue that if a newcomer identifies with a subgroup of team incumbents and believes that the subgroup is associated with strong established faultlines among team incumbents, the newcomer will view the subgroup as cohesive and

supportive, leading to enhanced psychological safety, which promotes information seeking. If the newcomer identifies with a subgroup of incumbents and perceives weak established faultlines among those incumbents, the newcomer will believe that the subgroup is low in cohesion because some incumbents in the subgroup may also belong to another subgroup (i.e., the subgroups overlap with each other). Such a belief of low subgroup cohesion will result in a decrease of psychological safety, which leads to less information seeking.

At the team level, when there is subgroup division among incumbents caused by strong established faultlines, team incumbents are more likely to compete for resources with members belonging to other subgroups (Choi & Sy, 2010; Zhang & Guler, 2019) and be more aware of their status (Antino et al., 2019). The competition between subgroups will motivate incumbents to interact with the newcomer and utilize his or her unique knowledge and ultimately promote team creativity (Cooper, Rockmann, Moteabbed, & Thatcher, in press). In addition, I propose that information elaboration (exchange, discussion, and integration of ideas, knowledge, and insights relevant to a team's task, van Knippenberg, De Dreu, & Homan, 2004) between incumbents and the newcomer is the mechanism underlying the relationship between established faultlines and team creativity. In particular, I hypothesize that incumbents' knowledge sharing with the newcomer or their reflective reframing on the newcomer's ideas (i.e., respectfully attentive to and build upon the newcomer's idea; Hargadon & Bechky, 2006) will mediate the relationship between established faultlines and team creativity.

As a third contribution, I explain how conflict among team incumbents provide unique social information to newcomers that influences the subgroup identification–

psychological safety-information seeking relationship. Prior team research focuses mainly on conflict that is experienced by a team (e.g., Johnson & Avolio, 2019; Lee, Choi, & Kim, 2018; Wombacher & Felfe, 2017). Some research has demonstrated that observing conflicts that occur among others increases an individual's anxiety (Dadds & Powell, 1991). Therefore, I argue that newcomers' perceived conflict that occurs among team incumbents will influence the subgroup identification-psychological safetyinformation seeking relationship. When newcomers identify with a subgroup of incumbents and believe that team incumbents have a lot of conflict and tension, newcomers may be uncertain about how they should behave and interact with those incumbents. In addition, they will be anxious about the negative consequences of their behaviors, and worried about being potentially involved in any future conflicts. As a result, their subgroup identification will not lead to a strong feeling of psychological safety. Therefore, I hypothesize that the subgroup identification-psychological safetyinformation seeking relationship will be weakened when newcomers perceive high-level conflict and will be strengthened when newcomers perceive low-level conflict.

Hypotheses were tested in two empirical studies. Individual-level hypotheses that focus on newcomer information seeking, as summarized in Figure 1.1, were tested using longitudinal data over three time periods on a sample of 72 newcomers in multiple organizations in various industries in the U.S. Team-level hypotheses were tested using data collected from an experiment with a sample of 197 undergraduate students composing 40 teams from the business school at a large university in the U.S. Figure 1.2 summarizes the hypothesized relationships at the team level. Below I outline the structure of the dissertation.

In Chapter 2, I present a comprehensive review of the newcomer literature with a focus on newcomer information seeking and newcomers' impact on teams. I begin the literature review with a brief introduction of newcomer socialization and information seeking, followed by a summary of the impact of information seeking on newcomers' job-related outcomes. I then introduce the antecedents of newcomer information seeking that have been explored in prior studies. The rest of the chapter is centered on a review of newcomers' impact on teams, which covers both positive and negative impacts on teams and factors (team and newcomer characteristics) that affect such influences.

In Chapter 3, I first review the literature on team faultlines, covering topics such as definition of team faultlines, faultline strength, impacts of team faultlines on teams, and factors that influence the impacts of team faultlines. Following a review of faultline studies, I propose the idea of established faultlines in teams that experience the entry of newcomers and discuss their importance for understanding newcomer information seeking and the impact of newcomers on team creativity.

In Chapter 4, I present the empirical study where I explored the effect of newcomers' subgroup identification on their information seeking, the underlying mechanism, and the role of newcomers' perception of established faultlines and conflict among team incumbents. I begin this chapter by providing a brief introduction of the study. I then present my hypotheses and explain the theoretical rationale of each hypothesis, followed by an introduction of the method I used (i.e., a three-wave newcomer survey that was Internet-based) to test those hypotheses. I explain the sample I had and the measurements I used. At the end of this chapter, I explain my data analysis approach and report the results of data analyses.

In Chapter 5, I present the empirical study that explores how established faultlines affect team creativity upon the entry of a newcomer in a team. I begin this chapter by providing a brief introduction of the study. I present my hypotheses and explain the theoretical rationale of each hypothesis, followed by an introduction of the method I used (i.e., an experiment using student teams) to test those hypotheses, including the sample, procedure, and measurements. At the end of this chapter, I introduce my data analysis approach and report the results of data analyses.

In Chapter 6, which begins with a summary of the overall findings of the two empirical studies, I discuss the theoretical implications for literatures on newcomer information seeking, member change associated with newcomers, and team faultlines as well as practical implications. I then discuss limitations of this dissertation and provide directions of future research, followed by a brief conclusion of the dissertation.



Figure 1.1 Hypothesized Relationships at the Individual Level



Figure 1.2 Hypothesized Relationships at the Team Level

### CHAPTER 2

#### A REVIEW OF THE NEWCOMER LITERATURE

The goal of this dissertation is to explore newcomer information seeking and its impact on team creativity in diverse teams. Therefore, in this chapter, I review the literatures on newcomer information seeking and newcomers' impacts on teams.

#### 2.1. AN OVERVIEW OF NEWCOMER INFORMATION SEEKING

Newcomer information seeking is a type of proactive behavior that is critical for newcomers to adjust to their new work environments (Morrison, 1993). Prior research has consistently demonstrated the positive impacts of newcomer information seeking on adjustment outcomes such as job satisfaction, task mastery, job performance, social adjustment, and turnover intention (Bauer et al., 2007; Kammeyer-Mueller et al., 2013; Nifadkar & Bauer, 2016; Nifadkar et al. , 2012; Saks, Gruman, & Cooper-Thomas, 2011; Tan et al., 2016; Yu & Davis, 2016). Additionally, recent studies have explored the antecedents of newcomer information seeking, such as newcomers' personality (Kammeyer-Mueller et al., 2011), desire for control (Ashford & Black, 1996), learning goal orientation (Tan et al., 2016), and coworker and supervisor support (Kammeyer-Mueller et al., 2013; Nifadkar et al., 2012).

#### 2.1.1. Newcomers' Socialization and Information Seeking

Changing jobs is increasingly common for today's workforce. The topic of newcomer adjustment has drawn extensive attention from researchers in different fields, such as social identity and organizational socialization, and has been an increasingly

important topic in the newcomer literature (Bauer & Erdogan, 2014). Newcomers' socialization or adjustment is a process in which newcomers acquire knowledge, skills, and abilities related to their new jobs, make connections with others in their team and organization, and transition from being an outsider to an insider of their team (Bauer et al. 2007; Ellis et al., 2015). Newcomers' socialization and adjustment experience has impacts on their job attitudes, job performance, and turnover (Bauer et al., 2007; Saks et al., 2007). An important component of this adjustment process is newcomers' proactive information seeking through which newcomers make sense of their team and organization (De Vos & Freese, 2011; Morrison, 1993; Saks et al., 2011).

When entering their teams and starting their new job, newcomers need to cope with the uncertainty associated with their job roles, expected behaviors and attitudes, and social relationships with others (Katz, 1980; Katz & Kahn, 1978). During the early stage of assimilation and socialization, information from the insiders – management, supervisors, and incumbent team members– serves to assist newcomers in dealing with the uncertainty they may experience through clarifying job roles, familiarizing them with the culture, processes, and people in their team and organization, and orienting them to organizational practices (De Vos & Freese, 2011; Li, Harris, Boswell, & Xie, 2011). Although organizations endeavor to orient newcomers through information dissemination during their entry, feelings of information inadequacies are common for newcomers (Miller & Jablin, 1991). Thus, newcomers' proactive efforts to seek information are of pivotal importance with respect to uncertainty reduction, resulting in not only role clarity but also social acceptance (Bauer et al., 2007).

Newcomer information seeking mainly takes two forms: information seeking that aims at performing tasks (i.e., task-related information seeking) and those that aim at social assimilation in their teams (i.e., social information seeking, Ashford & Black, 1996; Ashforth et al., 2007; Bauer, & Green, 1998; Bauer et al., 2007; Fang, Duffy, & Shaw, 2011). Additionally, newcomers may seek information in overt (i.e., asking questions about their tasks and their teams) or covert ways (e.g., observing how others do their job and when they get rewarded or punished). Researchers have shown that overt information seeking is more effective than covert information seeking with respect to the clarity and relevance of the information that newcomers receive (Harrison et al., 2011; Miller & Jablin, 1991; Morrison, 1993; Nifadkar et al., 2012). Therefore, the rest of this review focuses on newcomers' overt information seeking, which I refer to hereinafter as information seeking for the purpose of simplicity.

2.1.2. Impacts of Information Seeking on Newcomers' Job-Related Outcomes

Newcomers who engage in more information seeking are more successful in acquiring adequate information and are more likely to achieve positive adjustment outcomes such as high task performance, task mastery, role clarity, job satisfaction, social adjustment, and are more willing to stay in their teams (Bauer et al., 2007; Kammeyer-Mueller et al., 2013; Nifadkar & Bauer, 2016; Nifadkar et al., 2012; Saks et al., 2011; Tan et al., 2016; Yu & Davis, 2016). Specifically, some research demonstrates that taskrelated information seeking influences organizational insiders' perception of newcomers' commitment to task mastery, which affects the extent that insiders provide task information to newcomers and ultimately impact newcomers' task performance and task mastery (Ellis et al., 2017). They further found that social information seeking is related

to the extent that newcomers are evaluated as committed to building connections with insiders and fitting in their team and organization, which impact their social adjustment and intention to stay in the organization.

The information that newcomers gather through information seeking has been viewed as their social capital (Fang et al., 2011) and their information seeking has been demonstrated to affect the structural and resource attributes of their social networks within their organization and work team (Fang et al., 2011). In addition, information seeking has been found to promote newcomers' learning behaviors (Tan et al., 2016), and their social exchange with leaders, which in turn decreases their psychological strain and turnover intentions and increases their extra-role behaviors (Zheng, Wu, Eisenberger, Shore, Tetrick, & Buffardi, 2016).

#### 2.1.3. Antecedents of Newcomer Information Seeking

Newcomers' individual attributes have been found to influence newcomer information seeking. For example, empirical evidence suggests that newcomers' personality or disposition (e.g., curiosity, Harrison, et al., 2011; proactive personality; Kammeyer-Mueller et al., 2011), desire for control (Ashford & Black, 1996), and learning goal orientation (Tan et al., 2016) are positively associated with their information seeking. In addition, researchers also found that newcomers' age similarity with their team decreases information seeking and their similarity with the team with respect to gender and education increases their information seeking (Kammeyer-Mueller et al., 2011).

Other antecedents of newcomer information seeking examined in prior literature include coworker and supervisor support, anticipated organizational support, relationship

conflict, and newcomers fit with their organization. Specifically, the support newcomers receive from supervisors and coworkers is positively related to their information seeking (Kammeyer-Mueller et al., 2013; Nifadkar et al., 2012). Zhang and colleagues (2016) further demonstrated that newcomers' anticipated organizational support is positively related to their information seeking from supervisors. Additionally, Nifadkar and Bauer (2016) found that newcomers' relationship conflict with their coworkers negatively impacts their information seeking through increasing their anxiety in socializing with coworkers. In contrast, such relationship conflict with coworkers positively impacts their information seeking from supervisors through promoting relationship building with these supervisors. Finally, from the perspective of person-environment (PE) fit, Yu and Davis (2016) found that employees seek information most frequently when there is a misfit between organizational supplies for autonomy and newcomers' personal needs. They argued that when there is a PE misfit, newcomers are motivated to achieve PE fit through proactive behaviors such as information seeking.

#### 2.2. AN OVERVIEW OF NEWCOMERS' IMPACTS ON TEAMS

Generally, scholars have found or theorized that the entry of newcomers have positive impacts on team processes (e.g., high team reflection and low team conflict, Arrow & McGrath, 1993; Gruenfeld & Fan, 1999), and outcomes (e.g., high team performance and team creativity, Baer et al., 2010; Choi & Thompson, 2005; Gorman, & Cooke, 2011). However, some studies have demonstrated newcomers' negative influences on teams, such as low task focus (Levine & More land, 1999), disrupted team routines (Pisano, Bohmer, & Edmondson, 2001), impaired team cognition (Lewis et al., 2007), and low team performance (Rink & Ellemers, 2015). In addition, scholars have

examined factors that moderate the effects of newcomers on teams, such as team characteristics (e.g., Choi & Levine, 2004; Hansen & Levine, 2009; Hirst, 2009; Lewis et al., 2007) and newcomer characteristics (e.g., Bunderson, van der Vegt, & Sparrowe, 2014; Kane & Rink, 2015; Rink & Ellemers, 2009). I now discuss in detail the current state of research on newcomers' impacts on teams.

#### 2.2.1. Newcomers' Positive Impacts on Teams

Newcomers' impact on team outcomes was first explored by Ziller and Behrigner (1960) who demonstrated that teams with newcomers perform better than teams with stable membership in creative tasks. Subsequent research largely confirmed the positive influence of newcomers on team creativity or innovation (Baer et al., 2010; Choi & Thompson, 2005; Gruenfeld, Martorana, & Fan, 2000; Nemeth & Ormiston, 2007; Perretti & Negro, 2007; Ziller et al., 1962). For example, Choi and Thompson (2005) found that the entry of new members increases the creativity of incumbent team members, indicating that adding new members in teams can exert direct influence on incumbent team members. Other research suggests that adding new members in teams can enhance teams' task orientation (Choi & Thompson, 2005; Ziller et al., 1962), decrease the time and efforts teams spend on dealing with conflict (Arrow & McGrath, 1993), increase and diversify teams' knowledge base through acquiring new members' novel perspectives, knowledge, and expertise (Kane, Argote, & Levine, 2005; Levine & Choi, 2004; Levine, Choi, & Moreland, 2003). In addition, the presence of newcomers in teams has been demonstrated to stimulate incumbent team members to reflect on processes related to task execution (Arrow & McGrath, 1993; Feldman, 1994; Gruenfeld

& Fan, 1999) and consider or make changes in team structure or processes (Kane et al., 2005; Levine & Choi, 2004).

One theoretical explanation for the positive impacts of newcomers on team performance, particularly team creativity, is that because newcomers are often numeric minorities in teams they can exert minority influence on their teams through providing dissenting or unique ideas (i.e., minority dissent; Choi & Levine, 2004; Gruenfeld et al., 2000; Levine et al., 2003). Minority dissent prompts members to view things from different perspectives and embrace new approaches to task execution (Dooley & Fryxell, 1999; Levine et al., 2003; Nijstad & De Dreu, 2012). Additionally, minority dissent enhances team problem solving (Nahavandi & Aranda, 1994) although it may lead to team members' negative perceptions and feelings about their team (Nemeth & Ormiston, 2007; van der Vegt et al., 2010). For example, Nemeth and Ormistion (2007) found that while team membership stability is positively associated with team cohesion, morale, and perceived team creativity, having newcomers in teams (i.e., changing membership) has a positive impact on teams' actual creativity even though such teams experience more negative perceptions and feelings such as perceiving the team environment as less friendly and comfortable. Additionally, newcomers can positively impact team outcomes regardless of whether their ideas are perceived correct or adopted in the final decision (Nemeth, 1986; Schulz-Hardt, Brodbeck, Mojzisch, Kerschreiter, & Frey, 2006). For example, in a study that examines how temporary membership changes influence team creativity, Gruenfeld and colleagues (2000) demonstrated that members who temporarily leave their team of origin to visit another team and then return to their team of origin have a positive impact on the creativity of their team of origin. However, they also found

that the ideas of these members are actually less likely to be adopted by their team of origin, they are perceived as having less contribution on team performance and more argumentative than before they left. These findings imply that such team members have impacts on team creativity in indirect ways rather than through direct influence.

Some researchers suggest that newcomers' unique ideas themselves are not adequate for teams to benefit in terms of their team creativity or team performance, meaning that newcomers have an impact on team outcomes above and beyond their viewpoints or the unique knowledge they possess (Choi & Thompson, 2005; Phillips et al., 2009). For example, Phillips and colleagues (2009) found that although teams with socially dissimilar (out-group) newcomers are less confident in their performance and perceive their interactions with those newcomers as less effective, these teams actually perform better than teams with socially similar newcomers (in-group newcomers). They argued that, instead of influencing team performance through directly bringing novel perspectives to their teams, such newcomers indirectly enhance group performance through changing the behaviors of incumbent team members such as motivating incumbent team members to reconcile divergent opinions. In another study, Choi and Thompson (2005) found that teams that receive new ideas, rather than new members with those ideas, do not significantly differ from teams that experience no member change (i.e., stable teams) with respect to team creativity. In contrast, teams that have newcomers with unique ideas perform better in creativity than those stable teams. This finding indicates that newcomers are likely to stimulate team creativity through their interactions with incumbent team members (Choi & Thompson, 2005). Supporting this idea, Hirst (2009) demonstrated that having newcomers in teams is related to more open discussion

within teams. Similarly, Gorman and Cooke (2011) found that teams with newcomers experience longer intra-team communication than stable teams. They pointed out that although adding new members in teams initially leads to an increase in time and efforts team members spend on communication, this communication experience may create an interaction-based learning process that enhances shared cognition within teams (e.g., shared team- or task-related knowledge), which will ultimately increase team effectiveness.

In sum, the entry of newcomers can have positive effects on team creativity. Some researchers have suggested that newcomers can stimulate team creativity through providing dissenting ideas. Other researchers have argued that newcomers may contribute to team creativity above and beyond their dissenting ideas. Recent research has called for studies that explore the role of the interactions between newcomers and team incumbents on team creativity.

#### 2.2.2. Newcomers' Negative Impacts on Teams

Some research suggests that having newcomers may have negative impacts on teams because it requires team members to spend time and efforts socializing new team members, distracts them from focusing on their tasks, and disrupts their social and task routines (Goodman & Leyden, 1991; Levine & More land, 1999; Pisano et al., 2001). Lewis et al. (2007) explored the effect of newcomers (in the form of member replacement) on team cognition and team performance. Their finding suggests that having newcomers in teams can lead to inefficient processes around transactive memory systems (i.e., the encoding, storage, and retrieval processes related to a team or the team's task, Wegner, 1987) and ultimately harm team performance. Rink and Ellemers (2015)

demonstrated that newcomer entry is associated with team members' increased selfconcern and personal contribution which do not benefit team performance.

In sum, although the majority of the literature demonstrates the positive effects of newcomers on team creativity, some research has shown that newcomers may have negative influence on team performance in non-creative tasks. The entry of newcomers may disrupt team routines and the transactive memory systems in teams.

2.2.3. Factors that Influence Newcomers' Impacts on Teams

Although research has shown the positive impacts of having newcomers in teams on team processes and outcomes, it doesn't mean that such positive impacts can be always found in teams that experience the entry of new members. Prior research has demonstrated the role of team characteristics (e.g., Choi & Levine, 2004; Hansen & Levine, 2009; Hirst, 2009; Lewis et al., 2007) and newcomer characteristics (e.g., Rink & Ellemers, 2009; Bunderson et al., 2014; Kane & Rink, 2015) in affecting newcomers' impacts on teams.

Regarding the role of team characteristics, research has shown that newcomers' impact on teams is contingent on factors such as team tenure, team reflection, teams' expectation on newcomers, and teams' performance history. For example, Hirst (2009) found that newcomers' effect on team processes and outcomes is influenced by team tenure such that newcomers have a positive impact on team communication and performance in newly formed teams, but a negative effect on communication and performance in long-serving teams. In another study, Lewis and colleagues (2007) demonstrated that teams benefit from having newcomers in terms of team cognition and performance only when team incumbents are instructed to reflect on each other's

knowledge and expertise. Some researchers demonstrated that newcomers have greater influence on team decisions regarding task strategies when teams work on an assigned rather than self-chosen strategy of task execution and have a history of failure in task completion (Choi & Levine, 2004). The reason is that teams are less committed to their task strategies when these strategies are assigned to them and lead to a failure. Additionally, newcomers have been found to have greater influence on their teams when incumbent team members have lower performance expectations on these newcomers (Hansen & Levine, 2009).

Recent research has also explored how newcomer characteristics impact team outcomes. Rink and Ellemers (2009) found that whether a newcomer joins a team temporarily or permanently influences their impact on team performance. When newcomers join their teams temporarily, they may have a greater positive impact on team performance as they shared more unique ideas than newcomers who join their teams permanently. However, the entry of such temporary newcomers may trigger team conflict. In a longitudinal study using student teams that examined the effect of newcomer status on team performance, Bunderson et al. (2014) found that newcomers' status was positively related to the performance of their new teams when their teams of origin have performance advantage over their new teams. In addition, newcomers' language-based identity strategy influences newcomers' impact on teams' work routines. Newcomers have greater influence on teams' work routines when they utilize an integrating (with a focus on the collective team identity) versus a differentiating (with an emphasis on personal identity and differentiation from incumbent team members) language-based strategy (Kane & Rink, 2015).

In sum, prior research has reconciled the mixed findings regarding the relationship between the entry of newcomers and team outcomes by exploring the influence of team and newcomer characteristics on such relationship. This line of research has shown that newcomers' impact on teams is contingent on factors such as team tenure, teams' expectation on newcomers, whether newcomers join their team temporarily or permanently, and newcomers' status in their new team.

### CHAPTER 3

#### TEAM FAULTLINES AND ESTABLISHED FAULTLINES

One major contribution of this dissertation is a focus on the consequences of established social structure among team incumbents at both the individual and team levels. Specifically, I focus on the role of established faultlines among team incumbents. In this chapter, I first present a review of the team faultlines literature. I then propose the idea of established faultlines in teams that experience the entry of newcomers and discuss the importance of established faultlines for understanding newcomer information seeking and team creativity upon the entry of newcomers.

#### 3.1. AN OVERIVEW OF TEAM FAULTLINES

#### 3.1.1. Team Faultlines: Definition and Faultline Strength

Research on team faultlines is a branch of the broader diversity literature which has traditionally focused on a single dimension of diversity (e.g., gender). Providing a novel perspective, *team faultlines* are dividing lines that split a team into two or more subgroups based on the alignment of multiple individual attributes across team members (adapted from Lau & Murnighan, 1998). The concept of faultlines enables researchers to move beyond examining team diversity that is based on a single individual attribute or a simple aggregation of multiple attributes and focus on the alignment among those attributes. Additionally, its emphasis on subgroup divisions within teams allows researchers to better understand the impact of diversity on team outcomes through a focus on dynamics within and across subgroups (Thatcher & Patel, 2012). Early research on

team faultlines mainly focused on faultlines associated with surface-level attributes, such as gender, race, and age (e.g., Bezrukova & Uparna, 2009; Gibson & Vermeulen, 2003; Thatcher, Jehn, & Zanutto, 2003). Recent studies have also investigated team faultlines associated with deep-level individual attributes, such as educational background, functional background, goal types, personality, and status (e.g., Bezrukova, Thatcher, Jehn, & Spell, 2012; Carton & Cummings, 2012; Cooper et al., 2014; Ellis, Mai, & Christian, 2013; Kulkarni, 2015; Ren, Gray, & Harrison, 2015). Teams can have faultlines that are dormant (e.g., Lau & Murnighan, 2005; Thatcher et al., 2003) or activated (e.g., Jehn & Bezrukova, 2010; Pearsall, Ellis, & Evans, 2008). Dormant faultlines refer to an objective alignment of individual attributes among team members and can become activated when team or organizational context triggers team members' social categorization based on salient attributes (Jehn & Bezrukova, 2010; Lau & Murnighan, 1998).

Teams may differ from each other regarding the strength of their faultlines which reflects the extent to which teams have distinct subgroups based on multiple individual attributes across team members (Lau & Murnighan, 1998; Thatcher et al., 2003). The more individual attributes are aligned, the stronger the faultlines are. A perfect alignment of attributes exists when a subset of team members can be labeled by the same set of social categories simultaneously, resulting in homogenous subgroups that are distinct from each other. For example, in a four-member team where there are two under-30 Asian females, and two over-40 White males, the team members' gender, race and age perfectly align, resulting in the existence of a faultline that divides the team into two homogenous subgroups. In this example, the team's composition of demographic
attributes gives rise to a very strong demographic faultline. In contrast, when team members' individual attributes loosely align, the team has weak faultlines such that the team can be divided into subgroups in multiple ways.

## 3.1.2. Impacts of Team Faultlines on Teams

Research on faultlines is mainly grounded on social identity theory (Brewer, 2001; Tajfel, 1978), self-categorization theory (Turner, 1985; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), and the similarity-attraction paradigm (Byrne, 1971). According to social identity theory and self-categorization theory, subgroup formation is the process of intra-group social categorization, during which individuals categorize themselves and others into subgroups on the basis of relevant individual attributes (Hogg & Terry, 2000). Subgroup formation is associated with the development of individuals' subgroup identification, which evokes a "we" versus "they" distinction between members of their own subgroups and those of others (Ferguson & Porter, 2013). As detailed by Thatcher and Patel (2012), early research on team faultlines (1998-2011) investigated the impact of faultlines on a number of team processes and outcomes. In general, strong faultlines have negative impacts on team performance (e.g., Bezrukova et al., 2009), team processes such as conflict and cohesion (e.g., Choi & Sy, 2010; Jehn & Bezrukova, 2010), team behaviors such as information elaboration (e.g., Meyer, Shemla, & Schermuly, 2011), team attitudes such as satisfaction (e.g., Rico, Molleman, Saánchez-Manzares, & van der Vegt, 2007), and emergent states such as trust and respect (e.g., Cronin, Bezrukova, Weingart, & Tinsley, 2011).

Recent faultlines research has continued to provide support for the negative effect of strong faultlines on team performance (Bezrukova, Spell, Caldwell, & Burger, 2016;

Crucke & Knockaert, 2016; Ellis et al., 2013; Meyer & Schermuly, 2012) and found negative impacts of strong faultlines on other team outcomes such as team decisionmaking (Chiu & Staples, 2013; Spoelma & Ellis, 2017) and organizational outcomes. For example, Bezrukova et al. (2016) used a multilevel perspective to differentiate between team-level faultlines and organization-level faultlines in Major League Baseball teams. They found that, by increasing distrust and conflict as well as limiting communication among members, team-level and organization-level faultlines decrease team and organizational performance, respectively. Moreover, with an emphasis on the context of social enterprise, Crucke and Knockaert (2016) showed that strong faultlines are negatively associated with board service performance because strong faultlines lead to communication hindrance and limited information elaboration.

Recent studies have also continued to investigate the relationship between faultlines and team processes and behaviors that influence team performance. These studies have provided further support for the negative impacts of strong faultlines on team processes such as team conflict (Chiu & Staples, 2013; Crucke & Knockaert, 2016; Lim, Busentitz, & Chidambaram, 2013; Spoelma & Ellis, 2017), status conflict (Antino et al., 2019), cohesion (Schölmerich, Schermuly, & Deller, 2016), information sharing and exchange (Jiang et al., 2012; Lim et al., 2013), knowledge acquisition (Qu & Liu, 2017), and team members' social interactions (Jiang et al., 2012). Recent research has also demonstrated a negative relationship between strong faultlines and some team behaviors, such as task learning (Rupert, Blomme, Dragt, & Jehn, 2016) and process learning (Rupert et al., 2016), and team emergent states, such as trust (Oliverira & Scherbaum, 2015) and respect (Oliverira & Scherbaum, 2015).

In addition, researchers have found that strong faultlines reduce team members' job satisfaction (Gover & Duxbury, 2012) and loyal behaviors (Chung, Liao, Jackson, Subramony, Colakoglu, & Jiang, 2015), and increase social loafing (Meyer, Schermuly, & Kauffeld, 2016; Schölmerich et al., 2016), absenteeism (Gover & Duxbury, 2012), and derogation toward out-group members (Stanciu, 2017). For example, focusing on demographic and informational faultlines, Jiang and colleagues (2012) found that strong informational faultlines (i.e., faultlines associated with educational background) decreases task-related information sharing, and that strong demographic faultlines (i.e., faultlines associated with nationality) hampers social interactions (friendship behaviors) among team members. In a recent study that focused on activated faultlines, Antino and colleagues (2019) demonstrated that the strength of activated faultlines has a negative impact on team performance through increasing intra-team status conflict. They found that activated faultlines drive status conflict via threatening team justice climate.

Although the majority of recent faultlines studies demonstrated the negative impacts of faultlines on team outcomes, some studies point to the possibility that faultlines may have a positive impact on performance. For example, Ellis and colleagues (2013) found a positive relationship between faultline strength and team creativity. Recent studies provide more nuanced knowledge on the impact of faultlines on team outcomes. For instance, Chen and colleagues (2017) explored the nonlinear relationship between faultline strength and team performance, and found an inverted U-shaped relationship between faultline strength and team performance. Their findings indicate that teams may actually benefit more from moderate faultlines than weak or strong faultlines.

## 3.1.3. Factors that Influence the Impact of Faultlines

Researchers have examined various factors that affect the relationship between faultlines and team performance, such as team-related factors (e.g., balance of subgroup size and number of subgroups, Carton & Cummings, 2013; Xie, Wang, & Qi, 2015; team structure clarity, Antino et al., 2019), work-related factors (e.g., relationship conflict, task conflict, process conflict, task type, goal structure, and task motivation, task-relevant information sharing and exchange; Adair, Liang, & Hideg, 2017; Chiu & Staples, 2013; Ellis, Mai, & Christian, 2013; Meyer & Schermuly 2012; Rico, Sánchez-Manzares, Antino, & Lau, 2012), leadership-related factors (e.g., leaders' diversity beliefs, leaders' characteristics, and leaders' membership in a faultline-based subgroup; Georgakakis, Greve, & Ruigrok, 2017; Meyer, Shemla, Li, & Wegge, 2015; Schölmerich, Schermuly, & Deller, 2017), network factors (e.g., the nature of social ties; Ren et al., 2015), and environmental factors (e.g., environmental dynamism; Cooper, Patel, & Thatcher, 2014).

For instance, focusing on the effects of configurational properties (i.e., the number and balance of subgroups), Carton and Cummings (2013) examined how subgroups caused by faultlines influence performance. They showed that teams with two identity-based subgroups perform worse than teams with any other number of subgroups, but the number of subgroups is positively related to team performance. Furthermore, while an increasing balance of identity-based subgroups is negatively related to team performance, an increasing balance of knowledge-based subgroups is positively related to team performance. Moreover, Antino and colleagues (2019) found that team structure clarity affects the relationship between activated faultlines and team justice climate. Their finding suggests that clear team structure provides certainty or legitimacy around status,

which alleviates the negative impact of activated faultlines on team justice climate. Additionally, Rupert et al. (2016) considered the role of faultline distance (i.e., the divergence between the subgroups) to investigate the relationship between informational faultline strength and task learning, process learning, and team transactive memory. They found that when faultline distance is small, faultline strength is positively related to task learning, process learning, and transactive memory. When faultlines distance is large, the relationship between faultline strength and task learning is negligible, while the relationship between faultline strength and process learning or transactive memory is found to be negative (but not statistically significant).

Ellis and colleagues (2013) examined the role of task type in the relationship between goal faultlines and performance. They found that groups with goal faultlines perform more poorly in terms of their routine task performance than groups with specific and difficult goals or groups with do-your-best-goals. However, they also showed that goal faultlines have a positive effect on groups' creative task performance. In addition, Meyer et al. (2015) argued that when organizational crisis trigger faultlines in teams, whether a team member's subgroup includes the team leader plays a critical role in the relationship between faultline strength and individual performance. They found that in the crisis years, strong faultlines decrease individual team members' performance, and the negative effect is amplified when the team leader is not in a team member's subgroup. When a team leader exists in a team member's subgroup, the detrimental effect of faultlines is weakened. In another study, Ren et al. (2015) took a network perspective to emphasize the important role of social ties (i.e., actual network patterns among team members) in the relationship between faultlines and team outcomes. Their results showed

that faultlines and networks jointly impact team performance. Faultlines decrease team performance when there are animosity social ties across the subgroups. Faultlines increase team performance when friendship ties across subgroups exist. Lastly, Cooper et al. (2014) focused on environmental contexts and found that informational faultlines in top management teams positively affects firm performance under low environmental dynamism, high environmental complexity, and high environmental munificence. In summary, recent studies showed that strong faultlines generally have a negative influence on teams, but these harmful effects can be ameliorated by diverse factors.

## 3.2. ESTABLISHED FAULTLINES IN TEAMS WITH NEWCOMERS

Under the assumption of stable team membership, prior research on team faultlines investigates the effect of faultline strength from the perspective of a team as a whole. This means faultlines have been conceptualized to exist among all members of a team based on relevant individual attributes. However, when a newcomer enters a team, during the socialization process, team incumbents are viewed as "insiders" and the newcomer is viewed as an "outsider" who will become an "insider" after he or she is fully socialized in the team (Li et al., 2011). In other words, there is likely to be a natural division between the incumbent team members and the newcomer, particularly during the first few months when the newcomer is still making sense of work roles and the team and is in the middle of achieving socialization.

Due to this natural division between team incumbents and a newcomer, during the socialization process, the newcomer and incumbents may not focus on making sense of the whole team. Instead, they may focus on making sense of each other. For example, the newcomer needs to know how incumbent team members work together, how they

interact with each other, and how their interpersonal relationships with each other look like (Katz, 1980; Katz & Kahn, 1978). With respect to team incumbents, they may be interested in the newcomer's competency in performing the tasks, whether the person can collaborate with others, and how they should interact with the newcomer. Therefore, conceptualizing faultlines that are based on multiple attributes across all team members (incumbents and newcomers) may not best serve the purpose of understanding the role of faultlines on newcomers' information seeking targeted at incumbent team members and their impact on team creativity during the process in which incumbents and newcomers are still making sense of each other.

As a result, in this dissertation, I develop the concept of established faultlines or faultlines that exist among incumbent team members and define it as the dividing lines that split the team incumbents into two or more subgroups based on the alignment of multiple individual attributes (adapted from Lau & Murnighan, 1998). The consideration of established faultlines allows me to understand the subgroup division and dynamics among incumbent team members and investigate how perceptions of existing social interaction patterns among these "insiders" may influence newcomer information seeking and shape incumbents' interaction with the newcomer, which is likely to affect team outcomes such as team creativity. Specifically, In Chapter 4, I explore the effect of newcomers' subgroup identification on their information seeking and the role of newcomers' perceived established faultlines and conflict.

## CHAPTER 4

# NEWCOMER INFORMATION SEEKING: SUBGROUP IDENTIFICATION, PERCEIVED ESTABLISHED FAULTLINES, AND PERCEIVED CONFLICT

Newcomer information seeking from incumbent team members is a key component of their socialization and adjustment in their team and organization (De Vos & Freese, 2011; Morrison, 1993; Saks et al., 2011). Prior studies have consistently demonstrated the positive impacts of newcomer information seeking on their adjustment outcomes such as task mastery, job performance, job satisfaction, social adjustment, and turnover intention (Bauer et al., 2007; Kammeyer-Mueller et al., 2013; Nifadkar & Bauer, 2016; Nifadkar et al., 2012; Saks et al., 2011; Tan et al., 2016; Yu & Davis, 2016). Therefore, it is important to understand when newcomers are more likely to seek information or knowledge from incumbents in their team and why. As reviewed in Chapter 2, prior studies on the antecedents of newcomers' information seeking have demonstrated the impacts of individual characteristics (e.g., personality; Harrison et al., 2011) and team or organizational contexts (e.g., coworker support and relationship conflict; Kammeyer-Mueller et al., 2013; Nifadkar et al., 2012; Nifadkar & Bauer, 2016). There is limited knowledge on the influence of newcomers' identification within their team on their information seeking.

In a team context, identification refers to a feeling of belonging within a team (Ashforth, Sluss, & Harrison, 2007). Newcomers may identify with the team as a whole or identify with a subset of team members (Cooper et al., in press). Team identification

has been viewed as an important outcome of newcomers' successful socialization (Ashforth & Saks, 1996; Ashforth et al., 2007), implying that it takes time for newcomers to take on the team's goals and values and define themselves in terms of their team. However, self-categorization theory suggests that in order to reduce uncertainty individuals may categorize themselves as a member of similar others when they enter a team (Brewer, 2001, Turner 1985, Turner et al., 1987), which is referred to as subgroup identification in team diversity literature and has been demonstrated to influence how individuals interact with team members (e.g., Carton & Cummings, 2012; Thatcher & Patel, 2012). Therefore, this study investigates how newcomers' identification with a subgroup of team incumbents affects their information seeking. Specifically, as identifying with a group of similar others provides a supportive and psychologically safe environment for individuals (Hogg, 2000; Lau & Murnighan, 2005), I examine the mediating role of newcomers' psychological safety on the relationship between their subgroup identification and information seeking. Additionally, I investigate the moderating role of newcomers' perceived established faultlines and conflict among team incumbents in affecting the subgroup identification-psychological safety-information seeking relationship. The hypotheses were tested using longitudinal data over three time periods on a sample of 72 newcomers in organizations in various industries in the U.S.

## 4.1. THEORY DEVELOPMENT

4.1.1. Newcomers' Subgroup Identification and Information Seeking: The Mediating Role of Psychological Safety

According to self-categorization theory, individuals are motivated to identify with a group of similar others in order to reduce subjective uncertainty (Brewer, 2001, Turner,

1985, Turner, et al., 1987). The motive of uncertainty reduction comes from individuals' desire to reduce ambiguity about their place in the social world, meaning who they are, how they should behave, and what they should expect from others (Hogg & Abrams, 1993; Hogg & Mullin, 1999; Hogg & Terry, 2000). Thus, after being part of a team, a newcomer may quickly identify with a subset of team incumbents with whom the person shares more similarities compared to other team incumbents. When individuals see similar others as in-groups (i.e., members of "us" rather than "them"), they have favorable feelings, attitudes, and perceptions towards those in-groups and feel comfortable and safe interacting and communicating with those in-groups (Hogg and Terry 2000; Turner 1985; Turner et al., 1987). Identifying with others who possess and display similar cognitive and behavioral patterns also allows individuals to feel more confident in the appropriateness of their personal perceptions, attitudes, and behaviors (Hogg 2000), anticipate support and help from those others, and feel psychologically safe (Lau & Murnighan, 2005). In addition, the feeling of being psychologically safe that is associated with the belongingness to a subgroup is likely to spill over to the team level, meaning that individuals may feel safe interacting with others in the team as a whole (Lau & Murnighan, 2005). Psychological safety is defined as "feeling able to show and employ one's self without fear of negative consequences to self-image, status, or career" (Kahn, 1990: 708). In work team contexts, when individuals feel psychologically safe, they are more likely to engage in interpersonal risk-taking (Edmondson, 1999).

Although information seeking is beneficial for newcomers in helping them adjust to their jobs and teams, it is also costly and involves interpersonal risks. Newcomers' perceived social cost of seeking information is believed to be one of the major factors

that affect the extent that they engage in information seeking (Kammeyer-Mueller et al., 2010; Miller & Jablin, 1991), which is done during their social interactions with others in their team. According to social exchange theory, social cost is embedded in any type of social exchange and is defined as the cost associated with the loss or denial of social rewards, which are the resources desired and valued by people (Blau, 1964; Roloff, 1981). During interpersonal interactions, costs are incurred when people do not receive social rewards, receive the obverse of the rewards, or miss a chance for a better social exchange (Roloff, 1981).

For newcomers, social rewards of seeking information include the information they need and the positive feelings they have during and after seeking information, such as personal attraction, social acceptance into the team, social approval, and respect from others (Blau, 1964; Miller & Jablin, 1991). Building on this, a newcomer's social cost is associated with information seeking and may consist of the denial of information requests and negative feelings (relational costs), such as lack of personal attraction to another, not being accepted by the group, social disapproval, and not being respected by others. For example, engaging in information seeking is likely to bring newcomers into the spotlight and signal to others that they lack the knowledge or expertise to complete their tasks (Miller & Jablin, 1991). When there is a perceived high social cost associated with information seeking, newcomers become cautious and hesitant in seeking information (Kammeyer-Mueller et al., 2010; Williams & O'Reilly, 1998). Conversely, when newcomers perceive low social cost, they will be more willing to seek information from others.

I argue that when a newcomer identifies with a subgroup of incumbents, the person will feel psychologically safe in interacting with team incumbents in general and have little fear of the negative consequences of his or her behaviors and actions. Therefore, newcomers will perceive low social costs associated with seeking information from team incumbents. Newcomers may believe that incumbents would view their questions favorably and expect a positive response from those incumbents (Schlenker & Leary, 1982), and thus engage in more information seeking (Chen, Sharma, Edinger, Shapiro, & Farh, 2011; Edmondson, 1999). This explains why individuals seek information more frequently from those they feel close to (Settoon & Adkins, 1997), when they perceive more support from others, or feel that they are accepted by organizational insiders (e.g., incumbents in their teams, their supervisors, or the management; Bauer et al., 2007; Kammeyer-Mueller et al., 2013). Conversely, when the newcomer feels psychologically unsafe in the team as a result of not identifying with a subgroup of incumbents, the person will be more attentive to the potential social cost of seeking information from those incumbents and perceive that there is high cost of information seeking and high risk of being denied or looked down upon by incumbents, leading to little engagement in seeking information. Therefore, I hypothesize that

Hypothesis 1: Newcomers' subgroup identification will be positively related to
their information seeking from team incumbents via their feelings of psychological safety.
4.1.2. The Role of Perceived Established Faultlines

Faultlines research suggests that subgroups caused by strong faultlines have high within-subgroup similarity and between-subgroup distinction (Lau & Murnighan, 1998). Those highly homogenous subgroups are more united and are likely to provide subgroup

members a more cohesive, supportive, and psychologically safe environment than subgroups that are associated with weaker faultlines (Lau & Murnighan, 2005). Thus, if a newcomer identifies with a subgroup of incumbents in the team and perceives that the subgroup is a result of strong faultlines (that could be based on any multiple individual attributes), the newcomer will tend to perceive the subgroup as cohesive and supportive. This means that if the newcomer anticipates that one incumbent in that subgroup will provide positive responses to his or her requests of information and show favorable attitudes towards him or her, the newcomer is likely to believe that others in the subgroup would provide similar responses and hold similar attitudes.

Conversely, weak faultlines can split a team in multiple ways, causing the resulting subgroups to overlap with each other (Lau & Murnighan, 1998). As a result, some team members, if not all, are likely to belong to more than one subgroup. When a newcomer identifies with a subgroup of incumbents in the team and perceives that the subgroup is a result of weak faultlines, the person is likely to believe that some of the incumbents within that subgroup, if not all, would also belong to another one or more subgroups and may not perceive the subgroup as cohesive and supportive. This means that if the newcomer anticipates that one incumbent in that subgroup will provide positive responses to the newcomers' requests of information and show favorable attitudes towards him or her, the newcomer may not expect all incumbents in the subgroup to respond to his or her information requests in the same positive way.

The above arguments suggest that when a newcomer identifies with a subgroup of team incumbents, the perception of strong established faultlines may increase their feelings of psychological safety that are caused by their belongingness to the subgroup,

and, conversely, the perception of weak established faultlines among incumbents may decrease their feelings of psychological safety. The role of perceived established faultiness is summarized in the following hypothesis.

Hypothesis2: The indirect positive relationship between newcomers' subgroup identification and information seeking via their psychological safety will be moderated by their perceived established faultlines such that the indirect relationship will be strengthened when newcomers perceive strong established faultlines and will be weakened when newcomers perceive weak established faultlines.

## 4.1.3. The Role of Perceived Conflict

Research on conflict suggests that when individuals engage in interpersonal conflict with their coworkers, the conflict is positively related to those individuals' depression, stress, and anxiety (Jehn & Mannix, 2001; Gamero, Gonzalez-Roma, & Peiro, 2008), and negatively related to their self-esteem (Frone, 2000) and feelings of psychological safety (Carmeli, Brueller, & Dutton, 2009). Additionally, conflict has negative consequences on individuals' well-being even when they are not directly or indirectly involved in the conflict. Research has shown that observing conflict that occurs between others increases the observer's anxiety (Dadds & Powell, 1991). As a newcomer in a team, an individual has little knowledge about how incumbents usually work together as a team, their performance history, or interpersonal relationships among incumbents. When newcomers perceive high-level conflict among team incumbents, their subgroup identification may not lead to a strong feeling of psychological safety because they may become uncertain about how they should behave and interact with team incumbents, anxious about the negative consequences of their behaviors, and worried about being

potentially involved in any future conflicts among incumbents. Low-level psychological safety will in turn impede newcomers' information seeking because they will perceive the social cost of information seeking as very high.

When newcomers perceive low-level conflict among team incumbents, they tend to form an impression that team incumbents in general have good and healthy relationships with each other. As a result, identifying with a subgroup of incumbents will lead to a stronger feeling of psychological safety because they will experience little anxiety in their sensemaking of the relationships among team incumbents and they are more certain that being close to a subgroup of incumbents will not trigger negative feelings and perceptions of other team incumbents. Therefore, I hypothesize that

Hypothesis 3: The indirect positive relationship between newcomers' subgroup identification and information seeking via their psychological safety will be moderated by their perceived conflict among incumbents such that the indirect relationship will be weakened when newcomers perceive high-level conflict and will be strengthened when newcomers perceive low-level conflict.

#### 4.2 METHOD

#### 4.2.1. Sample

I tested these hypotheses using data collected from business school alumni at a large public university in the United States. These alumni were undergraduate students who graduated in spring 2019 and started their job in fall 2019 and became newcomers in organizations in various industries such as retail, software, insurance, and healthcare. Students were contacted through emails before their graduation to gather information about their exact job start dates. Data was collected in three waves through Internet-based

surveys with a gap of two weeks between each round of data collection. Such a two-week interval allows me to collect data for different variables in a temporal order that is consistent with the hypothesized model and at the same time minimize potential common method bias and reduce respondent fatigue (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Data on subgroup identification, group identification, perceptions of team conflict, and established faultlines was collected at time 1 (at the end of the 4<sup>th</sup> week after participants started their job and became a newcomer of their team). Newcomers' psychological safety was measured in all three surveys. Data on newcomers' information seeking was collected at time 3. For the first two surveys, participants were awarded a \$5 electronic gift card for their participation in each survey. They were awarded a \$15 electronic gift card for their participation in the last survey.

The first survey was sent to 210 newcomers who had joined their organizations one month before the administration of the first survey. Among these 210 newcomers, 106 completed the first survey (respond rate= 50.48%). Three participants were removed from the sample because they did not perceive themselves working in a team. Among the remaining 103 participants, 92 completed survey 2 (respond rate= 89.32%) and 83 completed the last survey (respond rate= 90.22%). Because Hypothesis 3 is about the role of newcomers' perceived established faultlines, I excluded participants who reported having less than three team incumbents. Therefore, the final sample consisted of 72 newcomers. Within the final sample, 31 were males, 41 were females, and the average age was 22.67 (SD=2.52). With regard to the race makeup, 88.89% were Caucasian, 4.17% were Asian or Pacific Islander, 1.39% were Hispanic or Latino, 2.78% were African American, and 1.39% identified with other races.

# 4.2.2. Measures

Subgroup identification. Subgroup identification was measured with four items adapted from Ellemers, Kortekaas, & Ouwerkerk (1999) by changing the reference from group to subgroup. Sample items are "In my team, I fit well into a subgroup of incumbents who are just like me" and "In my team, I belong to a subgroup of incumbents who I feel are very similar to me". All items were measured using a 5-point Likert-type scale (1= "strongly disagree"; 5= "strongly agree"). The Cronbach's alpha for the subgroup identification scale was 0.91.

*Perceived established faultlines*. Perceived established faultlines were measured with three items adapted from Jehn & Bezrukova (2010) by changing the focus from team to incumbents in a team. The three items are "I perceive incumbents in my team as being split up into different subgroups", "I perceive incumbents in my team as being divided into different subgroups", and "I perceive incumbents in my team as containing at least two informal subgroups". All items were measured using a 5-point Likert-type scale (1= "*strongly disagree*"; 5= "*strongly agree*"). The Cronbach's alpha for the perceived established faultlines scale was 0.86.

*Perceived conflict.* An 11-item scale developed by Jehn (1995, 1997) was used to measure newcomers' perceived conflict among team incumbents. Four items were used to measure relationship conflict. Sample items are "How much friction is there among incumbents of your team" and "How much emotional conflict is there among incumbents of your team". Task conflict was measured with four items, such as "How often do incumbents in your team disagree about opinions regarding the work being done" and "How much conflict is there among incumbents in your team disagree about opinions regarding the work being done" and

do". Three items were used to measure process conflict. Sample items are "How often do incumbents in your team disagree about who should do what" and "how frequently do incumbents in your team disagree about the way to complete team tasks". All items were measured using a 5-point Likert-type scale (1 = "None"; 5 = "A lot"). The Cronbach's alpha for the perceived conflict scale was 0.89.

*Psychological safety*. Psychological safety was measured with four items with the highest item correlations from Edmondson (1999). Sample items are "If I make a mistake on this team, it is often held against me (reversed item)" and "It is safe to take a risk on this team". All items were measured using a 5-point Likert-type scale (1= "*strongly disagree*"; 5= "*strongly agree*"). The Cronbach's alpha for the psychological safety scale was 0.65.

Information seeking. Data on both task-related information seeking and social information seeking was collected. The task-related information seeking items have a focus on job performance or the technical aspects of the job, and the social information seeking items have a focus on social relationships or the social aspects of the job. Task-related information seeking was measured with three items adapted from VandeWalle, Ganesan, Challagalla, and Brown (2000). Sample items are "How frequently do you ask incumbents in your team for feedback about your overall job performance" and "How frequently do you ask incumbents in your team for information about what is expected of you regarding the technical aspects of your job". Social information seeking was measured with three items also adapted from VandeWalle et al. (2000). Sample items are "How frequently do you ask incumbents in your team for feedback about the appropriateness of your social interactions in the team" and "How frequently do you ask

incumbents in your team for information about what is expected of you regarding the social aspects of your job". All items were measured using a 5-point Likert-type scale (1= *"Almost never"*; 5= *"Very frequently"*). The Cronbach's alpha for the information seeking scale was 0.84.

*Control variables.* As prior studies demonstrated that newcomers' proactive personality correlates with their information seeking (e.g., Ellis et al., 2017), I included proactive personality as a control variable. Proactive personality was measured with six items with the highest factor loadings from Bateman and Crant (1993). Sample items are "Nothing is more exciting than seeing my ideas turn into reality" and "I am always looking for better ways to do things". The Cronbach's alpha for proactive personality scale was .70. I also controlled for newcomers' team identification. Team identification was measured with four items adapted from Ellemers et al. (1999). Sample items are "I feel that I fit well in my team" and "My team as a whole is an important reflection of who I am". All items were measured using a 7-point Likert-type scale (1="strongly disagree"; 7= "strongly agree"). The Cronbach's alpha for the subgroup identification scale was .89. Finally, I controlled for psychological safety at time 1 and information seeking at time 2 to remove within-person variance in these two variables. Adding these two control variables allows me to provide cleaner estimates of the hypothesized relationships. 4.2.3. Analytical Approach

I conducted Ordinary Least Squares Regression models to test the hypothesized relationships using the bootstrapping approach recommended by Hayes (2013, 2015) with 5000 resamples. Specifically, in order to test Hypothesis 1, which proposed that newcomers' subgroup identification is positively related to their information seeking

from team incumbents via their feelings of psychological safety, I ran a mediation model. Regarding Hypothesis 2, which proposed that the indirect positive relationship between newcomers' subgroup identification and information seeking via their psychological safety is moderated by their perceived established faultlines, I ran a first-stage moderated mediation model. Both mediation and moderated mediation models were ran using the "Mediation" R package developed by Tingley, Yamamoto, Hirose, Keele, and Imai (2014). The moderating effect of perceived established faultlines on the subgroup identification—psychological safety—information seeking relationship was tested through comparing the indirect effects of subgroup identification on information seeking with values of perceived established faultline that were one standard deviation below the mean and one standard deviation above the mean.

Similarly, in order to test Hypothesis 3, which proposed that the indirect positive relationship between newcomers' subgroup identification and information seeking via their psychological safety is moderated by their perceived conflict among team incumbents, I ran a first-stage moderated mediation model. The moderating effect of perceived conflict among team incumbents on the subgroup identification— psychological safety—information seeking relationship was tested through comparing the indirect effects of subgroup identification on information seeking when perceived conflict among team incumbents was one standard deviation below the mean and one standard deviation above the mean. All of the analyses were run in R 3.6.2.

#### 4.3. RESULTS

Table 4.1 presents the means, standard deviations, and correlations of the variables. Newcomers' proactive personality was positively correlated with their

information seeking at time 3 (r= .31, p< .01). Unexpectedly, at Time 1, which is four weeks after the job start date, the mean level of participants' team identification was relatively high (M=5.63, SD=1.00) and positively correlated with subgroup identification (r= .61, p< .01), suggesting that an individual could be high on both team identification and subgroup identification simultaneously. Team identification was positively correlated with psychological safety at time 1 (r= .28, p< .01) and time 2 (r= .42, p< .01), and information seeking at time 2 (r= .40, p< .01) and time 3 (r= .43, p< .01).

Subgroup identification was positively correlated with psychological safety at time 1 (r= .36, p< .01) and time 2 (r= .24, p< .05), and information seeking at time 2 (r=.35, p<.01). The correlation between subgroup identification with information seeking at time 3 did not meet the 95% threshold for statistical significance (r=.23, p > .05). In addition, the correlation between perceived established faultlines and perceived conflict among team incumbents was not statistically significant at .05 level (r=.19, p>.05), suggesting that when newcomers perceive strong faultlines among team incumbents they may not necessarily perceive high conflict among these incumbents at the same time. The correlation between psychological safety at time 2 and information seeking at time 3 did not meet the 95% threshold for statistical significance (r= .16, p > .05). The correlation between psychological safety at time 2 and information seeking at time 2 was not statistically significant at .05 level either (r= .21, p> .05). As expected, perceived conflict was negatively correlated with psychological safety at time 1 (r= -.34, p < .01) and time 2 (r = -.30, p < .05). Psychological safety at time 1 was positively correlated with psychological safety at time 2 (r= .53, p<.01). Information seeking at time 2 was positivity correlated with information seeking at time 3 (r= .59, p<.01).

#### 4.3.1. Hypothesis Tests

Hypothesis 1 predicted that newcomers' subgroup identification is positively related to their information seeking from team incumbents via their feelings of psychological safety. As shown in Table 4.2, the indirect effect of subgroup identification on information seeking was not significant ( $\beta = .01, p = .58, 95\%$  CI<sub>Boot</sub>= [-.03, .06]). Additionally, the indirect effect of subgroup identification on task-related information seeking ( $\beta = .00, p = .96, 95\%$  CI<sub>Boot</sub> = [-.06, .07]) or social information seeking ( $\beta = .01, \beta = .01$ ) p=.61, 95%  $CI_{Boot}$  = [-.03, .07]) was not significant either. Thus, Hypothesis 1 was not supported. With regard to the direct relationships shown in the table, team identification was positively related to psychological safety ( $\beta$ = .22, SE= .07, p= .00). Proactive personality and team identification were positively related to information seeking ( $\beta = .39$ , SE=.17, p=.02;  $\beta=.27$ , SE=.11, p=.02, respectively). In addition, team identification was positively related to social information seeking ( $\beta$ =.32, SE=.14, p=.02). However, subgroup identification was negatively related to social information seeking ( $\beta$ = -.29, SE=.14, p=.04). Proactive personality was positively related to task-related information seeking ( $\beta$ = .50, SE= .21, p= .02).

In order to test Hypothesis 2 regarding the moderating effect of perceived established faultlines on the subgroup identification–psychological safety–information seeking relationship, as shown in Table 4.3, I ran a moderated mediation model. In the first step, I tested the interacting effect of subgroup identification and perceived established faultlines on psychological safety, and it was not statistically significant ( $\beta$ = -.01, *SE*= .08, *p*= .93). Although this result indicates that the moderating effect of psychological safety on the subgroup identification–psychological safety–information seeking relationship will not be statistically significant at .05 level, I continued to test the moderated mediation model in order to demonstrate the complete results. In the second step, I tested the indirect effect of subgroup identification with perceived established faultlines (PEF) at different levels, which are 1 standard deviation below the mean ( $\beta_{low}$ ) PEF = . 01, p=.55, 95% CI<sub>Boot</sub> = [-.03, .07]) and 1 standard deviation above the mean ( $\beta_{high}$ PEF = .01, p= .53, 95%  $CI_{Boot} = [-.03, .09]$ ) In the final step, I tested whether these two indirect effects of subgroup identification with perceived established faultlines at different levels were significantly different from each other. The test results indicated that the difference between these two indirect effects was not significant ( $\beta_{low PEF}$  - $\beta_{high PEF}$  = -.00, p = .92, 95% CI<sub>Boot</sub> = [-.08, .07]). In addition, as shown in Table 4.4 and Table 4.5, the moderating effect of perceived established faultlines on the subgroup identificationpsychological safety-task-related information seeking relationship ( $\beta_{low PEF}$  - $\beta_{high PEF}$  = -.00, p=.99, 95% Cl<sub>Boot</sub>= [-.10, .10]) or the subgroup identification-psychological safetysocial information seeking relationship ( $\beta_{low PEF} - \beta_{high PEF} = -.00, p = .95, 95\%$  CI<sub>Boot</sub>= [-.09, .07]) was not significant either. Thus, Hypothesis 2 was not supported.

As shown in Table 4.6, the same three-step approach was also used to test Hypothesis 3, which proposed the moderating effect of perceived conflict among incumbents on the subgroup identification–psychological safety–information seeking relationship. In the first step, I tested the interacting effect of subgroup identification and perceived conflict on psychological safety, and it was not significant ( $\beta$ = .05, *SE*= .15, *p*= .73). Although this result indicates that the moderating effect of psychological safety on the subgroup identification–psychological safety–information seeking relationship will not be statistically significant at .05 level, I continued to test the moderated

mediation model in order to demonstrate the complete results. In the second step, I tested the indirect effect of subgroup identification with perceived conflict at different levels, which are 1 standard deviation below the mean ( $\beta_{low conflict}$ = .01, p= .59, 95% *CI*<sub>Boot</sub>= [-.03, .09]) and 1 standard deviation above the mean ( $\beta_{high conflict}$ = .01, p= .77, 95% *CI*<sub>Boot</sub>= [-.04, .07]). In the final step, I tested whether these two indirect effects of subgroup identification with perceived conflict at different levels were significantly different from each other. The test result indicated that the difference between these two indirect effects was not significant ( $\beta_{low conflict} - \beta_{high conflict} = .00, p = .93, 95\%$  *CI*<sub>Boot</sub>= [-.08, .08]).

Additionally, I also tested the moderating effect of the three types of conflict respectively. As shown in Table 4.7 and Table 4.8, neither the moderating effect of perceived task conflict ( $\beta_{low task conflict} - \beta_{high task conflict} = -.00, p = .97, 95\%$  *CI<sub>Boot</sub>=* [-.10, .10]) nor perceived process conflict ( $\beta_{low process conflict} - \beta_{high process conflict} = .00, p = .99, 95\%$  *CI<sub>Boot</sub>=* [-.11, .10]) on the subgroup identification – psychological safety – task-related information seeking relationship was statistically significant. The moderating effect of perceived relationship conflict on the subgroup identification – psychological safety – task-related information seeking relationship was not significant either ( $\beta_{low relationship}$  *conflict* –  $\beta_{high relationship conflict} = -.00, p = .96, 95\%$  *CI<sub>Boot</sub>=* [-.10, .09]; See Table 4.9). Therefore, Hypothesis 3 was not supported. Finally, unexpectedly, perceived relationship conflict was positively related to social information seeking ( $\beta$ = 1.90, *SE*= .80, *p*= .02).

## 4.4. SUPPLEMENTAL ANALYSES

# 4.4.1. Reliability of Psychological Safety Scale

The four items that were used to measure psychological safety were from a widely used, well-acknowledged psychological safety scale developed by Edmondson (1999). The complete scale has been reported to have a very high reliability (e.g., Cronbach's alpha=.90 in Hu, Erdogan, Jiang, & Bauer's (2018) study on psychological safety, team information sharing and team creativity). However, the Cronbach's alpha of the psychological safety items used at time 2 was only .65. In order to understand more about how the psychological safety measure behaved in this study, I examined the reliability of the measure across the three surveys (psychological safety was measured at all three time points). Result showed that the Cronbach's alpha of the psychological safety measure was .39 at time 1, .65 at time 2, and increased to .72 at time 3, indicating that the reliability of the psychological safety measure improved over time in this study. 4.4.2. Subgroup Identification, Team Identification, and Psychological Safety

Previous faultlines research suggests that belonging to a subgroup increases individuals' psychological safety within their subgroup (Roussin, MacLean, & Rudolph, 2016) and even within their team (Lau & Murnighan, 2005). In addition, some researchers found that team identification moderates the effect of faultlines on team performance and argued that strong team identification may serve as the glue that improves coordination between subgroups (Bezrukova, Jehn, Zanutto, & Thatcher, 2009). However, we have limited knowledge on how subgroup identification and team identification work together to influence individuals' perceptions and feelings such as psychological safety. Because the main focus of this study is newcomers' subgroup identification and their perception of the established faultlines among team incumbents, team identification was included in prior mediation and moderated mediated models as a control variable. In this section, I examined the moderating effect of team identification on the relationship between newcomers' subgroup identification and their psychological

safety. Because newcomers' subgroup identification and team identification were both positively correlated with their psychological safety, as shown in Table 4.1, I expect that team identification will enhance the positive relationship between subgroup identification and psychological safety such that the relationship will be stronger when team identification is strong than it is weak.

As shown in Figure 4.1, result of a post-hoc linear regression model that included the interaction term (subgroup identification × team identification) indicates that subgroup identification was positively related to psychological safety when team identification is high and was negatively related to psychological safety when team identification is low.

## 4.4.3. The Diversity of Newcomers' Information Source

The current literature on newcomers' information seeking focuses on newcomers' actual behaviors of information seeking, which have been operationalized as the frequency of seeking task-related and/or social information. In this study, due to the focus on newcomers' subgroup identification and their perceptions of established faultlines and conflict among team incumbents, another important outcome to investigate is the diversity of newcomers' information source. In this study, newcomers' information source is the team incumbents from whom a newcomer seeks task-related and social information. When the newcomer identifies with a subgroup of team incumbents who share similarity with him/her, although the newcomer may feel psychologically safe to ask questions or seek feedback, the information seeking will be constrained, meaning that the newcomer only seek information within the subgroup rather than within the entire team. As a result, a possible consequence of high subgroup identification is seeking

information from a relatively homogeneous subset of team incumbents (i.e., low diversity of information source). I collected data on diversity of newcomers' information source (hereinafter referred as source diversity) at time 3 (which is two months after the start date) in the last survey.

Source diversity was measured using two items on a 5-point Likert-type scale (1= "*strongly disagree*"; 5= "*strongly agree*"). The items are "The team incumbents from whom I frequently sought information or feedback in the past four weeks are different from each other", and "The team incumbents from whom I frequently sought information or feedback in the past four weeks are similar to each other". The Cronbach's alpha for the scale was .57. Source diversity (M=2.85, SD=.66) was negatively correlated with proactive personality (r= -.44, p< .01), team identification (r= -.27, p< .05), and information seeking at time 3 (r= -.36, p< .01), and was not correlated with subgroup identification (r= -.17, p> .05), perceived established faultlines (r= -.23, p> .05).

I tested the direct effect of newcomers' subgroup identification on their source diversity and found that subgroup identification was not significantly related to source diversity ( $\beta$ = -.01, *SE*= .13, *p*> .05) when controlled for their team identification (at time 1) and information seeking (at time 3). Unexpectedly, information seeking at time 3 was negatively related to source diversity ( $\beta$ = -.24, *SE*= .11, *p*< .05). This finding suggests that the more frequently newcomers sought information from team incumbents, the more likely that these incumbents shared a lot of similarities with each other.

Variable	М	SD	1	2	3	4	5	6	7	8
1. Proactive Personality T1	3.93	.47								
2. Team Identification T1	5.63	1.00	.15							
3. Subgroup Identification T1	3.32	.89	.09	.61**						
4. PEF <i>T1</i>	2.90	.86	04	.01	02					
5. Perceived Conflict T1	1.59	.43	09	17	17	.19				
6. Psychological Safety T1	3.86	.50	.02	.28**	.36**	07	34**			
7. Psychological Safety T2	3.81	.57	.05	.42**	.24*	13	30*	.53**		
8. Information Seeking T2	2.66	.85	.12	.40**	.35**	.20	.08	.15	.21	
9. Information Seeking T3	3.28	.93	.31**	.43**	.23†	.09	.03	.11	.16	.59**

Table 4.1 Means, Standard Deviations, and Correlations of Variables in Chapter 4

Note: PEF=Perceived established faultlines.  $^{\dagger} p < 0.10$ ;  $^{*} p < 0.05$ ;  $^{**} p < 0.0$ 

Models and Variables	β	SE	t	р	95% IC
Model on psychological safety T2					
Proactive personality T1	00	.12	04	.97	
Team identification T1	.22	.07	3.12	.00	
Subgroup identification T1	10	.08	-1.31	.19	
Psychological safety T1	.54	.12	4.63	.00	
Model on information seeking T3					
Proactive personality T1	.39	.17	2.31	.02	
Team identification T1	.27	.11	2.41	.02	
Subgroup identification T1	14	.12	-1.21	.23	
Psychological safety T1	.04	.19	.22	.82	
Psychological safety T2	09	.18	51	.61	
Information seeking T2	.51	.10	4.96	.00	
Model on task-related information seeking					
<i>T3</i>					
Proactive personality T1	.50	.21	2.41	.02	
Team identification T1	.18	.13	1.38	.17	
Subgroup identification T1	.09	.15	.61	.54	
Psychological safety T1	04	.24	16	.87	
Psychological safety T2	00	.22	01	.99	
Task-related information seeking T2	.31	.12	2.64	.01	
Model on social information seeking T3					
Proactive personality <i>T1</i>	.29	.20	1.41	.16	
Team identification <i>T1</i>	.32	.14	2.34	.02	
Subgroup identification T1	29	.14	-2.09	.04	
Psychological safety T1	.04	.23	.15	.88	
Psychological safety T2	08	.21	37	.71	
Social information seeking T2	.57	.09	6.11	.00	
Indirect effects					
Subgroup identification – psychological	.01			.58	03/ .06
safety –information seeking					
Subgroup identification –psychological	.00			.96	06/ .07
safety task-related information					
seeking					
Subgroup identification –psychological	.01			.61	03/ .07
safetysocial information seeking					

Table 4.2 Subgroup Identification, Psychological Safety, and Information Seeking

Note: N=72.  $^{\dagger} p < 0.10$ ;  $^{*} p < 0.05$ ;  $^{**} p < 0.01$ 

Models and Variables	β	SE	t	р	95%IC
Model on psychological safety T2					
Proactive personality T1	01	.12	07	.94	
Team identification <i>T1</i>	.22	.07	3.09	.00	
Subgroup identification T1	09	.23	37	.71	
PEF T1	05	.27	17	.87	
Psychological safety T1	.53	.12	4.48	.00	
Subgroup identification <i>T1</i> × PEF <i>T1</i>	01	.08	10	.93	
Model on information seeking T3					
Proactive personality T1	.42	.17	2.44	.02	
Team identification <i>T1</i>	.24	.11	2.12	.04	
Subgroup identification T1	.30	.34	.88	.38	
PEF T1	.51	.39	1.31	.20	
Psychological safety T1	.08	.20	.41	.68	
Psychological safety T2	10	.18	58	.57	
Information seeking T2	.54	.11	5.04	.00	
Subgroup identification <i>T1</i> × PEF <i>T1</i>	03	.13	25	.80	
Indirect Effect at the values of					
PEF					
2.04	.01			.55	03/ .07
3.76	.01			.53	03/ .09
Indirect effect (PEF=2.04)-Indirect effect (PEF=3.76)	00			.92	08/ .07

Table 4.3 Subgroup Identification, Perceived Established Faultlines, Psychological Safety, and Information Seeking

Note: N=72. PEF=Perceived established faultlines.  $^{\dagger}p < .10$ ;  $^{*}p < .05$ ;  $^{**}p < .01$ 

Models and Variables	β	SE	t	р	95%IC
Model on psychological safety T2					
Proactive personality T1	01	.12	07	.94	
Team identification T1	.22	.07	3.09	.00	
Subgroup identification T1	09	.23	37	.71	
PEF T1	05	.27	17	.87	
Psychological safety T1	.53	.12	4.48	.00	
Subgroup identification <i>T1</i> × PEF <i>T1</i>	01	.08	10	.93	
Model on task-related information seeking					
<i>T3</i>					
Proactive personality T1	.51	.20	2.56	.01	
Team identification T1	.16	.13	1.19	.24	
Subgroup identification T1	.76	.41	1.87	.07	
PEF T1	.73	.47	1.57	.12	
Psychological safety T1	.03	.24	.12	.90	
Psychological safety T2	04	.22	19	.85	
Task-related information seeking T2	.34	.12	2.95	.00	
Subgroup identification <i>T1</i> × PEF <i>T1</i>	25	.14	-1.78	.08	
Indirect effect at the values of					
PEF					
2.04	.00			.86	06/ .07
3.76	.00			.85	07/ .09
Indirect effect (PEF=2.04)-Indirect effect (PEF=3.76)	00			.99	10/ .10

Table 4.4 Subgroup Identification, Perceived Established Faultlines, Psychological Safety, and Task-Related Information Seeking

Note: N=72. PEF=Perceived established faultlines.  $^{\dagger}p < .10$ ;  $^{*}p < .05$ ;  $^{**}p < .01$ 

Models and Variables	β	SE	t	р	95%IC
Model on psychological safety T2					
Proactive personality T1	01	.12	07	.94	
Team identification T1	.22	.07	3.09	.00	
Subgroup identification T1	09	.23	37	.71	
PSEF T1	05	.27	17	.87	
Psychological safety T1	.53	.12	4.48	.00	
Subgroup identification <i>T1</i> × PEF <i>T1</i>	01	.08	10	.93	
Model on social information seeking					
Proactive personality T1	.30	.21	1.45	.15	
Team identification <i>T1</i>	.31	.14	2.19	.03	
Subgroup identification T1	15	.42	35	.73	
PEF T1	.22	.47	.46	.65	
Psychological safety T1	.05	.24	.20	.84	
Psychological safety T2	07	.22	31	.76	
Social information seeking T2	.57	.10	5.67	.00	
Subgroup identification <i>T1</i> × PEF <i>T1</i>	05	.14	36	.72	
Indirect Effect at the values of					
PEF					
2.04	.01			.70	03/ .07
3.76	.01			.64	03/ .09
Indirect effect (PEF=2.04)- Indirect effect (PEF=3.76)	00			.95	09/ .07

Table 4.5 Subgroup Identification, Perceived Established Faultlines, Psychological Safety, and Social Information Seeking

Note: N=72. PEF=Perceived established faultlines.  $^{\dagger}p < .10$ ;  $^{*}p < .05$ ;  $^{**}p < .01$ 

Models and Variables	β	SE	t	р	95%IC
Model on psychological safety					
Proactive personality T1	01	.12	12	.90	
Team identification <i>T1</i>	.22	.07	3.07	0.00	
Subgroup identification T1	19	.25	74	.46	
Perceived conflict <i>T1</i>	30	.49	62	.54	
Psychological safety T1	.50	.12	4.00	.00	
Subgroup identification <i>T1</i> ×Perceived conflict <i>T1</i>	.05	.15	.34	.73	
Model on information seeking					
Proactive personality T1	.40	.17	2.37	.02	
Team identification T1	.24	.11	2.15	.04	
Subgroup identification T1	.44	.36	1.22	.23	
Perceived conflict T1	1.19	.70	1.70	.09	
Psychological safety T1	.08	.20	.42	.67	
Psychological safety T2	08	.18	43	.67	
Information seeking T2	.54	.11	5.06	.00	
Subgroup identification $T1 \times$ Perceived conflict $T1$	37	.22	-1.69	.10	
Indirect effect at the values of					
Perceived conflict					
1.16	.01			.59	03/ .09
2.02	.01			.77	04/ .07
Indirect effect (perceived conflict=1.16)- Indirect effect (perceived conflict=2.02)	.00			.93	08/ .08
Note: N=72. $p < .10$ ; $p < .05$ ; $p < .01$					

Table 4.6 Subgroup Identification, Perceived Conflict, Psychological Safety, and Information Seeking

Models and Variables	β	SE	t	р	95%IC
Model on psychological safety T2					
Proactive personality T1	03	.12	22	.83	
Team identification <i>T1</i>	.26	.07	3.09	.00	
Subgroup identification T1	21	.25	84	.40	
Perceived task conflict T1	28	.41	67	.50	
Psychological safety T1	.51	.12	4.24	.00	
Subgroup identification $T1 \times$ Perceived task conflict $T1$	.05	.13	.42	.67	
Model on task-related information seeking					
<i>T3</i>					
Proactive personality T1	.49	.21	2.82	.03	
Team identification <i>T1</i>	.17	.14	1.24	.22	
Subgroup identification T1	.25	.45	.55	.58	
Perceived task conflict T1	.13	.73	.18	.86	
Psychological safety T1	05	.25	22	.83	
Psychological safety T2	01	.23	06	.95	
Task-related information seeking T2	.31	.12	2.60	.01	
Subgroup identification <i>T1</i> × Perceived task conflict <i>T1</i>	09	.23	39	.70	
Indirect effect at the values of					
Perceived task conflict					
1.26	.00			.88	07/ .11
2.25	.00			.99	07/ .06
Indirect effect (task conflict=1.26)-	00			.97	10/ .10
Indirect effect (task conflict=2.25)					
Note: N=72. $^{\dagger}p < .10$ ; $^{*}p < .05$ ; $^{**}p < .01$					

Table 4.7 Subgroup Identification, Perceived Task Conflict, Psychological Safety, and Task-Related Information Seeking

Models and Variables	β	SE	t	р	95%IC
Model on psychological safety T2					
Proactive personality T1	01	.12	06	.95	
Team identification <i>T1</i>	.23	.07	3.20	.00	
Subgroup identification T1	22	.22	-1.00	.32	
Perceived process conflict T1	35	.42	83	.41	
Psychological safety T1	.49	.12	3.97	.00	
Subgroup identification <i>T1</i> × Perceived	.07	.12	.56	.58	
process conflict <i>T1</i>					
Model on task-related information seeking					
<i>T3</i>					
Proactive personality T1	.51	.21	2.49	.02	
Team identification T1	.17	.13	1.26	.21	
Subgroup identification T1	.56	.40	1.42	.16	
Perceived process conflict T1	.73	.73	1.00	.32	
Psychological safety T1	05	.24	19	.85	
Psychological safety T2	02	.22	10	.92	
Task-related information T2	.33	.12	2.81	.01	
Subgroup identification <i>T1</i> × Perceived process conflict <i>T1</i>	29	.22	-1.32	.19	
Indirect effect at the values of					
Perceived process conflict					
1.15	.00			.84	06/ .10
2.22	.00			.94	07/ .07
Indirect effect (process conflict=1.15)-	.00			.99	11/ .10
Indirect effect (process conflict=2.22)					
Note: N=72. $^{\dagger}p < .10$ ; $^{*}p < .05$ ; $^{**}p < .01$					

Table 4.8 Subgroup Identification, Perceived Process Conflict, Psychological Safety, and Task-Related Information Seeking

Models and Variables	β	SE	t	р	95%IC
Model on psychological safety T2					
Proactive personality T1	02	.12	13	.90	
Team identification T1	.21	.07	2.93	.01	
Subgroup identification T1	01	.23	06	.95	
Perceived relationship conflict T1	.09	.48	.19	.85	
Psychological safety T1	.52	.13	4.13	.00	
Subgroup identification $T1 \times$	06	.15	42	.68	
Perceived relationship conflict T1					
Model on social information seeking <i>T3</i>					
Proactive personality T1	.24	.20	1.22	.23	
Group identification T1	.39	.13	2.93	.01	
Subgroup identification T1	.36	.38	.93	.36	
Perceived relationship conflict T1	1.90	.80	2.40	.02	
Psychological safety T1	.18	.23	.78	.44	
Psychological safety T2	06	.20	31	.76	
Social information seeking T2	.56	.10	5.92	.00	
Subgroup identification $T1 \times$	47	.25	-1.84	.07	
Perceived relationship conflict T1					
Indirect effect at the values of					
Perceived relationship conflict T1					
1.16	.01			.72	03/ .06
2.02	.01			.71	04/ .10
Indirect effect (relationship	00			.96	10/ .09
conflict=1.16)-Indirect effect					
(relationship conflict=2.02)					
Note: N=72. $^{\dagger}p < .10$ ; $^{*}p < .05$ ; $^{**}p < .01$					

Table 4.9 Subgroup Identification, Perceived Relationship Conflict, Psychological Safety, and Social Information Seeking


Figure 4.1 Moderating Effect of Team Identification on the Relationship between Newcomers' Subgroup Identification and Psychological Safety.

# CHAPTER 5

# THE EFFECTS OF ESTABLISHED FAULTLINES ON TEAM CREATIVITY: THE ROLE OF INFORMATION ELABORATION

As highlighted in Chapter 1, research on team member change associated with newcomers suggests that teams may benefit from having newcomers in terms of team performance, particularly in creative tasks (e.g., Ziller et al., 1962; Choi & Thompson, 2005; Gruenfeld et al., 2000), through the interactions between team incumbents and the newcomer (Choi & Thompson, 2005; Gorman, & Cooke, 2011; Phillips et al., 2009). However, it is not clear which specific team processes are critical in helping teams benefit from having newcomers and when teams are more likely to benefit from the entry of newcomers. Such knowledge will help managers to maximize team outcomes such as team creativity and innovation in the current turbulent business environment where employees are highly mobile. Therefore, I conduct an empirical study to explore the antecedents of team creativity when teams experience the entry of newcomers. Specifically, I investigate the relationship between established faultlines among team incumbents and team creativity after a newcomer enters the team and the mechanism underlying the relationship.

Using social identity theory and self-categorization theory as the theoretical framework, I hypothesize that established faultlines are related to team creativity after the entry of a newcomer such that the stronger the established faultlines, the more creative the team is. Building on prior faultline research, I propose that when there is subgroup

division among team incumbents caused by strong established faultiness, incumbents belonging to one subgroup are more likely to compete for resources with incumbents belonging to another subgroup. The competition between subgroups will motivate incumbents to interact with the newcomer and utilize the newcomer's unique knowledge and ultimately promote team creativity. In addition, I propose that information elaboration between incumbents and the newcomer mediates the relationship between established faultlines and team creativity. In particular, I hypothesize that two aspects of information elaboration– incumbents' knowledge sharing with the newcomer and incumbents' reflective reframing on the newcomer's ideas (i.e., respectfully attentive to and build upon the newcomer's idea; Hargadon & Bechky, 2006) will mediate the relationship between established faultlines and team creativity. The hypotheses were tested using data collected from an experiment with a sample of 197 undergraduate students composing 40 teams from a business school at a large university in the U.S.

#### 5.1. THEORY DEVELOPMENT

#### 5.1.1. Established Faultlines and Team Creativity

Based on social identity theory and self-categorization theory, faultline researchers have theorized that in teams with strong faultlines, individuals are more likely to identify with faultline-based subgroups and have biased attitudes and perceptions towards members who belong to other subgroups (i.e., inter-subgroup bias). Such intersubgroup bias may lead to the lack of interactions or negative interactions between team members who belong to different faultline-based subgroups, which in turn can result in conflict, ineffectiveness of information exchange, and difficulty in generating and integrating different perspectives (Thatcher & Patel, 2012). Supporting this theorizing of

the detrimental mechanism of strong faultlines, prior research has demonstrated that team faultlines affect the interaction patterns among team members and team outcomes (Liu, Park, Hymer, & Thatcher, 2019; Thatcher & Patel, 2012). In general, strong faultlines have been found to increase conflict, decrease cohesion, impede information or knowledge exchange and processing among team members (Chiu & Staples, 2013; Crucke & Knockaert, 2016; Lim et al., 2013; Schölmerich et al., 2016), and impair team performance (Bezrukova et al., 2016; Crucke & Knockaert, 2016; Ellis et al., 2013; Meyer & Schermuly, 2012), and decision-making (Chiu & Staples, 2013; Spoelma & Ellis, 2017). However, evidence on the effect of faultlines on team creativity is limited and mixed. Some researchers theorized that faultlines are positively related to team creativity through increasing psychological safety and subgroup support (Bezrukova & Uparna, 2009; Nishii & Goncalo, 2008). In support of this theorized relationship, some researchers found that teams with strong faultlines perform better in creative tasks than teams with weak faultlines (Ellis et al., 2013). However, some researchers found a negative effect of strong faultlines on team creativity (Pearsall, Ellis, & Evans, 2008). There is also evidence suggesting that the effect of faultlines on team creativity is dependent on whether the team is under threat or not (Spoelma & Ellis, 2017) or the motivation of the team (Qu & Liu, 2017).

With a focus on the faultlines among incumbents of a team and the assumption that teams may benefit from having newcomers through the interactions between incumbents and newcomers, I propose that established faultlines will influence the extent that teams benefit from having newcomers in team creativity. Research on coalitions suggests that when coalitions result in divisions within a team, they often cause

competition for resources between different coalitions (Polzer, Mannix, & Neale, 1998). In addition, researchers argued that strong (demographic or network) faultlines may lead to competition or a concern for power distribution between different subgroups (Choi & Sy, 2010; Zhang & Guler, 2019). This may be explained by individuals' need for selfenhancement. According to social identity theory, individuals of a team are motivated to be positively distinct from other teams to satisfy their fundamental need for selfenhancement (Tajfel, 1974, Turner, 1987). Therefore, when there are strong faultlines among team incumbents, different faultline-based incumbent subgroups are more likely to compete with each other for resources in order to achieve self-enhancement (i.e., having more power or higher status). Because newcomers are expected to bring new and unique perspectives into the team, they are likely to be viewed by incumbents as potential resources that can help them obtain more power or higher status (Cooper et al., in press). Thus, when working on creative tasks, the divisive subgroups of incumbents caused by strong faultlines are likely to be more motivated to interact with the newcomer in an attempt to absorb new and unique ideas, which are valuable resources to complete creative tasks.

In contrast, because there are more overlapping between subgroups of incumbents associated with weak faultlines (i.e., each incumbent may belong to multiple subgroups), those subgroups of incumbents are less competitive toward each other. As a result, the incumbents as a whole are less motivated to interact with newcomers to obtain new ideas relevant to their task. Based on the idea that teams benefit from having newcomers through the interactions between incumbents and newcomers, teams with strong

established faultlines are more likely to benefit from having newcomers in their performance on creative tasks.

*Hypothesis 1: Established faultlines will be positively related to team creativity when teams experience the entry of newcomers.* 

5.1.2. The Role of Information Elaboration between Team Incumbents and Newcomers

Creativity and innovation are the foundation of organizations' competitive advantage (Acar, Tarakci, & van Knippenberg, 2019). Team creativity is more than the sum of individual team members' creativity and requires knowledge exchange and sharing among team members (Dong, Bartol, Zhang, & Li, 2017). Categorizationelaboration model suggests that teams benefit from members' diverse and unique ideas in performing creative or innovative tasks through members' information elaboration (van Knippenberg et al., 2004). This notion is generally supported by the empirical evidence in the last decade (van Knippenberg, 2017). Information elaboration within teams refers to the exchange, discussion, and integration of ideas, knowledge, and insights relevant to a team's task (van Knippenberg et al., 2004). Empirical and meta-analytic evidence shows that communication among team members is positively related to team innovation (Boies, Fiset, & Gill, 2015; Hülsheger, Anderson, & Salgado, 2009). In addition, social networks have been typically viewed as sources of diverse information that stimulates creativity and innovation (e.g., Zhou, Shin, Brass, & Choi, 2009). Research on the relationship between social network and team creativity has important implications for the role of information elaboration on team creativity (van Knippenberg, 2017). For example, density of team communication network, team internal and external social ties have been found to predict team creativity (Chen, 2009; Jia, Shaw, Tsui, & Park, 2014;

Perry-Smith & Shalley, 2014). Additionally, research suggests that external communication would need to stimulate and facilitate internal information elaboration to influence team creativity (Han, Han, & Brass, 2014).

Incumbents' knowledge sharing. Grounded on the idea that teams benefit from having newcomers in terms of team creativity through the interactions between team incumbents and newcomers, I propose that the information elaboration between incumbents and newcomers is a critical team process through which teams may benefit from newcomers' unique and novel ideas. In particular, in this study, I focus on two particular aspects of information elaboration –knowledge sharing and reflective reframing. Knowledge sharing has been found to predict team innovation or team creativity by studies conducted in different countries such as China, Korea, and Germany (e.g., Hu & Randel, 2014; Hu, Ou, Chiou, & Lin, 2012; Jiang, Gu, & Wang, 2014; Jin & Sun, 2010; Kessel, Kratzer, & Schultz, 2012; Sung & Choi, 2012). Knowledge sharing (or exchange) among team members is the foundation of team information elaboration. Without knowledge sharing, discussion and integration of diverse insights would not occur. In this study, I specifically focus on incumbents' knowledge sharing with a newcomer in a team. When a newcomer enters a team, the individual is very likely to have little understanding of the specific tasks that the team has been working on and where the team is in doing those tasks and how team members usually work together. Team incumbents' knowledge sharing about the team's tasks, goals, and strategies to achieve those goals will help the newcomer make sense of the tasks and how the team works together in general. Additionally, incumbents' knowledge sharing may be perceived by the newcomer as a signal of being accepted and supported by the team and

therefore stimulates and motivates the newcomer to speak up and share their unique insights, which may stimulate subsequent divergent thinking. Incumbents' knowledge sharing may sometimes be a response to a newcomer's questions about the task, the team's strategy to complete the task, or how members usually work together and collaborate. In this case, incumbents' knowledge sharing can be viewed as a helping behavior, which has been found to promote team creativity (Hargadon & Bechky, 2006).

Hypothesis 2a: Incumbents' knowledge sharing with the newcomer will be positively related to team creativity.

When there are subgroup divisions among incumbents caused by strong faultlines, as I argued earlier, incumbents may have more concerns for power and status distribution and are likely to compete for resources. When a newcomer enters the team, those incumbents are more likely to compete for the unique knowledge or insights that the newcomer has through initiating conversations with the newcomer about the tasks they are working on than incumbents of teams that have weak faultlines. They are more likely to start talking and interacting with the newcomer through explaining the tasks, the team's goals and strategies, the progress of individual tasks, or the problems and challenges they have in order to provide enough task-related information to the newcomer so that the newcomer can share his or her thoughts and insights that are different from what the incumbents have already known or thought of. In addition, by proactively interacting with the newcomer through sharing knowledge about the task, the incumbents are likely to build a good relationship with the newcomer because the newcomer is also motivated to acquire the knowledge and is likely to perceive incumbents' knowledge sharing as support and help. Therefore, when there are strong

faultlines among incumbents, those incumbents are more likely to be motivated to share task-related knowledge with the newcomer in order to obtain and utilize the newcomer's unique insights and build a good relationship with the newcomer.

Hypothesis 2b: Established faultlines will be positively related to incumbents' knowledge sharing with the newcomer.

*Hypothesis 2c: The relationship between established faultlines and team creativity will be mediated by incumbents' knowledge sharing with the newcomer.* 

*Team incumbents' reflective reframing*. Reflective reframing is a process where team members make new sense of what they already know by mindfully attending to and building upon the comments and actions of others (Hargadon & Bechky, 2006; Weick & Roberts, 1993; Weick, Sutcliffe, & Obstfeld, 1999). Although reflective reframing is unnecessary for simple and routine tasks, it has been found to influence team performance on complex, creative tasks (Ellis et al., 2013). In this study, I focus specifically on team incumbents' reflective reframing on the newcomer's unique insights. When incumbents engage in reflective reframing on the newcomers' ideas, they attach new meanings to the ideas they already have which may lead to the development of subsequent novel ideas (Hargadon & Bechky, 2006). With the help of reflective reframing, incumbents' insights not only shape the interactions between them and the newcomer but also are likely to be shaped by those interactions (Hargadon & Bechky, 2006). New ways of thinking may be stimulated and group thinking may be prevented by reflectively reframing on the newcomer's ideas (Ellis et al., 2013). In addition, the relationship between incumbents' reflective reframing on the newcomer's ideas and team creativity is also implied by the findings of research on minority influence. This line of

research suggests that minority dissent may stimulate divergent thinking and changes the way team members think although those dissenting ideas are not usually directly included in the final decision (Nemeth, 2003; Mucchi-Faina, Maass, & Volpato, 1991; Nemeth, Personnaz, Personnaz, & Goncalo, 2004). Therefore, I hypothesize that

*Hypothesis 3a: Team incumbents' reflective reframing on the newcomer's ideas will be positively related to team creativity.* 

When there is potential competition for utilizing the newcomer's unique knowledge, knowing what the unique ideas the newcomer has is not enough, because those ideas may or may not be directly useful. Once the newcomer shares his or her original idea about the tasks, in order to win the competition for resources, incumbents of teams that have strong faultlines will be motivated to build upon the newcomers' ideas and turn those ideas into insights that are more meaningful and helpful for the tasks. Additionally, these incumbents may develop more divergent thinking on the basis of newcomers' ideas. As subgroups caused by strong faultlines provide a subgroup environment with stronger support and more psychological safety (Lau & Murnighan, 2005), the incumbents are likely to engage in more reflective reframing on the newcomer's unique or dissenting ideas because they have less concerns for the negative outcomes of reframing, such as being disliked or criticized by other incumbents. Therefore, I hypothesize that

*Hypothesis 3b: Established faultlines will be positively related to incumbents' reflective reframing on the newcomer's ideas.* 

Hypothesis 3c: The relationship between established faultlines and team creativity will be mediated by incumbents' reflective reframing on the newcomer's ideas.

# 5.2 METHOD

## 5.2.1. Sample

I tested the hypothesized relationships through conducting an experiment. A total of 197 undergraduate students in 40 teams were recruited from the business classes at a large university in the U.S. The experiment was done in a behavioral lab of the business school. The student participants consisted of 72 males (36.55%), 125 females (63.45%), and the average age was 20.09 years (SD= 1.71). With regard to the race makeup of the sample, 72.08% were Caucasian, 14.21% were Asian, 7.61% were Hispanic or Latino, and 6.09% were African American.

Among the 40 teams, 21 teams were randomly assigned to the strong faultline condition and 19 were randomly assigned to the weak faultline condition. Each team experienced the entry of a newcomer in the middle of the experiment. In each session, I restricted the total number of available slots for students to sign up for so that there was a maximum of two teams in the lab. Limiting the number of teams in each session helps to maximize the quality of the experiment, particularly the quality of the video recordings of team discussions.

#### 5.2.2. Procedure and tasks

When signing online for the experiment, participants were asked to complete a short online survey on their demographic background (e.g., age, sex, major, work experience, team experience) and personality. Upon arrival at the behavioral lab, participants were randomly assigned to work on a creativity task either in a team or independently. Participants who were randomly selected to work on the task independently were assigned to join a team in the middle of the experiment, meaning that

they became a newcomer of a team later in the experiment. In addition, teams were randomly assigned to either the strong or weak faultlines condition.

Team size (including the newcomer) ranged from four to seven, depending on the total number of students who actually showed up for each session of the experiment. For example, when there were a total of ten students showing up for a session, two of them were randomly assigned to work on the task independently at the beginning and then became a newcomer of a team later. The other eight students were randomly assigned to to two four-person teams. In another case, when seven students showed up for a session, one of them was randomly assigned to work on the task independently at the beginning and became a newcomer to a six-person team later in the experiment. The other six students were asked to work as a team throughout the experiment.

Following prior research (e.g., Homan, Buengeler, Eckhoff, Ginkel, & Voelpel, 2015; Robert & Cheung, 2010), the creative task (either as an individual or team task) used in this study is to generate original ideas and develop a marketing plan for the business school. The task was chosen for this study because it is a more realistic representation of creative tasks in real-life settings compared to typical team brainstorming tasks (Amabile, 1982). Specifically, participants were asked to write a script for a short radio commercial and design a flyer for the business school. Some guidelines were provided to the participants. For example, they were told that both the script and flyer should contain slogans, catch phrases, or other advertising elements or designs that will make the school distinctive and attractive to a nationality diverse population. They were told that their scripts and flyers should be both novel and useful (Taggar, 2002). Participants were asked to respond in writing and/or drawings and finish

the task in 30 minutes. In the middle of the task, each participant who was first required to work on the task independently was assigned to a team and became a newcomer of the team. This means, before joining the team, the newcomer was asked to do the same creative task as an individual task. Upon the entry of the newcomer, each team was told that they have a newcomer joining the team who will now complete the task together with them. At the end of the experiment, each team submitted their script and flyer. All team communication and discussions were videotaped. Each participant received \$16 in the form of a pre-paid gift card and extra credit from their instructor of a management course for their participation.

# 5.2.3. Manipulation of Established Faultlines

Established faultlines were manipulated through providing participants how they are different from (or similar to) each other with respect to their personality. Specifically, in the strong faultline condition, participants were told that among all participants who did the personality survey people generally fit into one of two big personality categories. Half of the team were told that they generally fit into category 1 and the other half of the team were told that they generally fit into category 2. Such personality information was provided verbally in front of the whole team so that each team member was aware of how they were different from (or similar to) each other. In order to reinforce the manipulation, participants who were told belonged to the same personality category were asked to sit together at the same side of a table so that the two subgroups sat on different sides of the table. In addition, prior to working on the creativity task, teams were asked to work on a warm-up exercise. Specifically, participants in the strong faultlines condition were asked to talk with their subgroup members and find out their shared personality traits.

In the weak faultlines condition, participants were told that all members in the team belong to the same personality category. Teams were asked to sit in a circle. Additionally, regarding the warm-up exercise, participants were asked to talk with other team members and find out the shared personality traits within their team. After the warm-up activity, participants in both the weak faultlines and strong faultlines conditions were asked to complete a survey about their perception of the personality faultlines in their team.

#### 5.2.4. Measures

*Team creativity*. Following prior research (Ellis et al., 2013), both novelty and usefulness of each team's radio commercial script and the design of a flyer were measured. This approach is consistent with the definition of creative ideas as ideas that are both novel and useful (Shalley, 1991; Zhou & Oldham, 2001; Zhou & Shalley, 2011). Specifically, novelty was measured on a 5-point Likert-type scale (1= "*not at all novel*"; 5= "*extremely novel*") for each team's radio commercial script and the design of a flyer, respectively. Two independent raters assessed the usefulness of the flyer and radio script in three ways on a 5-point Likert-type scale: the overall usefulness (1= "*not at all useful*"; 5= "*extremely useful*"), the extent to which the designs contain slogans, catch phrases, or other advertising elements that will make the school distinctive (1= "*not at all distinctive*"; 5= "*extremely distinctive*"), the extent to which the design is attractive to a nationality-diverse population (1= "*not at all attractive*"; 5= "*extremely attractive*"). Each team's usefulness.

The two independent raters who coded team creativity had a background of business administration and were blind to the conditions. Both raters were female (aged 21 and 22, respectively). Interrater reliability was .65 for flyer novelty, .70 for script novelty, .86 for flyer usefulness, and .73 for script usefulness, respectively, and was calculated using Cronbach's alpha. I also measured interrater reliability using ICC (1). The ICC(1) was .45 for flyer novelty, .49 for script novelty, .71 for flyer usefulness, and .55 for script usefulness, respectively. Following previous creativity research (e.g., Zhou & Shalley, 2011; Ellis et al., 2013), a composite team creativity measure was created by multiplying each team's novelty score and usefulness score and then averaging across the two sub-tasks (i.e., the script and the flyer). The *z*-score of the composite creativity measure was used in data analyses.

*Knowledge sharing*. A coding scheme for team incumbents' knowledge sharing with the newcomer was adapted from the approach used in prior research (Homan, van Knippenberg, Van Kleef, & De Dreu, 2007). The two raters first coded each idea category shared by incumbents with the newcomer. They then coded the number of sentence-like unit incumbents used to explain each idea category. The final knowledge sharing score equals the total number of sentence-like unit incumbents used to explain all the idea categories they shared with the newcomer. The raters assessed team incumbents' knowledge sharing through coding the videotapes of team communication.

*Reflective reframing*. Team incumbents' reflective reframing on the newcomer's ideas was evaluated with a coding scheme adapted from Ellis et al. (2013). First, an idea category list that contains all the broad idea categories discussed by participants was developed. Each time a newcomer's idea is mentioned that triggers an idea from a team

incumbent belonging to a different idea category was coded as one incident of reflective reframing. This coding scheme is consistent with Hargadon and Bechky's (2006) definition of reflective reframing that reflective reframing occurs when team incumbents' comment on the newcomer's ideas and subsequently provide a new insight based on those ideas of the newcomer. The raters assessed team incumbents' reflective reframing through coding the videotapes of team communication.

*Control variables*. As participants were randomly assigned to different established faultlines conditions and the number of members in each team was dependent on the total number of participants who actually showed up for each session of the experiment, teams were different in their size and team demographic composition. Therefore, I included team size and demographic faultlines as control variables. Demographic faultlines were measured using the approach proposed by Thatcher et al. (2003) which limits the number of subgroups to two and calculated using the "asw.cluster" package in R.

# 5.2.5. Manipulation check

After participants were assigned to teams and before they started to work on their team task, participants' faultline perception was assessed with three items adapted from Jehn & Bezrukova (2010). Sample items are "I perceive my team as being split up into different subgroups based on personality type" and "I perceive my team as being divided into different subgroups based on personality type". All items were measured on a 5-point Likert-type scale (1= "*strongly disagree*"; 5= "*strongly agree*). The Cronbach's alpha for faultline perception scale was .88. The ICC(1) of ICC(2) for personality faultline perception were .60 and .85, respectively, and warranted team aggregation. Teams in the strong faultline condition (M= 3.42, SD= 0.87) indicated a significantly

greater mean level of faultline perception than did teams in the weak faultline condition (M=2.58, SD=0.67), F(1, 40)=11.42, p<.01.

# 5.2.6. Analytic Approach

I conducted hierarchical regression analyses to test the direct effects of established faultlines on team creativity (Hypothesis 1) and information elaboration (Hypotheses 2b and 3b), and the direct impact of information elaboration on team creativity (Hypotheses 2a and 3a). Specifically, one set of models tested the direct effect of established faultlines and information elaboration on team creativity (Hypotheses 1, 2b, and 3b). To test these hypothesized direct relationships, the control variable, team size, was entered in Step 1, established faultlines were entered in Step 2, and knowledge sharing (reflective reframing) was entered in Step 3. The other set of models tested the direct effect of established faultlines on information elaboration (Hypotheses 2a and 3a). To test these hypothesized direct relationships, the control variable, team size, was entered in Step 1, and established faultlines were entered in Step 2. Because the control variable demographic faultlines was not significantly correlated with all other variables, it was not included in these models.

In order to test the indirect effect of established faultlines on team creativity via information elaboration between team incumbents and newcomers, I conducted Ordinary Least Squares Regression models using the bootstrapping approach recommended by Hayes (2013, 2015) with 5000 resamples. Mediation models were ran using the "Mediation" R package developed by Tingley, Yamamoto, Hirose, Keele, and Imai (2014). All analyses were ran in R 3.6.2. 5.3. RESULTS

Table 5.1 presents the means, standard deviations, and correlations of the variables. Unexpectedly, established faultlines were not significantly correlated with knowledge sharing (r= -.14, p> .05), reflective reframing (r= -.07, p> .05), or team creativity (r= -.08, p> .05). As expected, team creativity was significantly correlated with knowledge sharing (r= .41, p< .05) and reflective reframing (r= .43, p< .01). Regarding the control variables, the correlation between team size and team creativity was statistically significant (r= .40, p< .01). As demographic faultlines were not significantly correlated with other variables at .05 level, this variable was not included in later hierarchical regression models and mediation models.

### 5.3.1. Hypothesis Tests

Hierarchical regression analyses were used to test the hypothesized direct relationships in this study. Hypothesis 1 predicted that established faultlines will be positively related to team creativity after a newcomer enters a team. As shown in Table 5.2, the relationship between established faultlines and team creativity was not statistically significant ( $\beta$ = -.35, *SE*= .29, *p*> .05). Therefore, Hypothesis 1 was not supported. Hypothesis 2a predicted that incumbents' knowledge sharing with the newcomer will be positively related to team creativity. As the relationship between knowledge sharing and team creativity was statistically significant ( $\beta$ = .20, *SE*= .08, *p*< .05), Hypothesis 2a was supported. In Hypothesis 2b, I proposed that established faultlines will be positively related to incumbents' knowledge sharing with the newcomer. As the relationship between established faultlines and knowledge sharing was not statistically significant ( $\beta$ = -.52, *SE*= .62, *p*> .05), Hypothesis 2b was not supported.

As a result, the indirect effect of established faultlines on team creativity via incumbents' knowledge sharing with newcomers (Hypothesis 2c) is not expected to be statistically significant. This is supported by the result of the mediation model ( $\beta$ = -.10, p= .44, 95% *CI*= [-.50, .13]). Therefore, Hypothesis 2c was not supported.

Hypothesis 3a predicted that team incumbents' reflective reframing on the newcomer's ideas will be positively related to team creativity. As shown in Table 5.3, the relationship between reflective reframing and team creativity was statistically significant ( $\beta$ = .27, *SE*= .09, *p*< .01). Therefore, Hypothesis 3a was supported. In Hypothesis 3b, I proposed that established faultlines will be positively related to incumbents' reflective reframing on the newcomer's ideas. As the relationship between established faultlines and reflective reframing was not statistically significant ( $\beta$ = .19, *SE*= .51, *p*> .05), Hypothesis 3b was not supported. As a result, the indirect effect of established faultlines on team creativity via incumbents' reflective reframing on the newcomer's ideas (Hypothesis 3c) is not expected to be statistically significant. This is supported by the result of the mediation model ( $\beta$ = -.06, *p*= .44, 95% *CI*= [-.30, .08]). Therefore, Hypothesis 3c was not supported.

## 5.4. SUPPLEMENTAL ALYSES

In order to rule out other aspects of the information elaboration between team incumbents and the newcomer that may impact team creativity after the entry of a newcomer, I also collected data on team incumbents' proactive information seeking from the newcomer and their direct adoption of the newcomer's ideas. Regarding information seeking, the two raters coded the total number of times when a team incumbent asked the newcomer's ideas about the task. In addition, the two raters counted the total number of

ideas that were shared by the newcomer and were directly adopted by the team in their final flyer and script.

I conducted linear regression analyses to test how incumbents' information seeking and idea adoption are related to team creativity. Results showed that neither incumbents' information seeking from the newcomer ( $\beta$ = .22, *SE*= .12, *p*> .05) nor their direct adoption of the newcomer's ideas ( $\beta$ = .07, *SE*= .06, *p*> .05) was significantly related to team creativity.

Variable	М	SD	1	2	3	4	5	6
1. Team Size	4.95	0.88						
2. Demographic Faultlines	0.78	0.31	0.12					
3. Established Faultlines	0.52	0.51	0.12	-0.04				
4. Knowledge Sharing	2.65	1.79	0.03	0.03	-0.14			
5. Reflective Reframing	1.22	1.47	-0.01	0.21	-0.07	0.06		
6. Team Creativity	0.00	1.00	0.40**	0.17	-0.08	0.41*	0.43**	

 Table 5.1 Means, Standard Deviations, and Correlations of Variables in Chapter 5

Note: N=40.  $^{\dagger}p < 0.10$ ;  $^{*}p < 0.05$ ;  $^{**}p < 0.01$ 

Variables		Team Creativity	Knowledge Sharing		
	Step 1	Step 2 (H1)	Step 3 (H2a)	Step 1	Step 2 (H2b)
Team size	.46** (.17)	.49*** (.17)	.32†(.17)	.06 (.37)	.11 (.37)
Established Faultlines		35 (.29)	21(.28)		52 (.62)
Knowledge Sharing			.20* (.08)		
$\mathbb{R}^2$	.16	.19	.26	.00	.03
Adjusted R <sup>2</sup>	.14	.15	.19	03	04
$\Delta R^2$	.16	.03	.07	.00	.03

Table 5.2 Established Faultlines, Knowledge Sharing, and Team Creativity

Note: N=40. Standard errors in parentheses.  $^{\dagger}p < 0.10$ ;  $^{*}p < 0.05$ ;  $^{**}p < 0.01$ 

Variables		Team Creativit	Reflective Reframing		
	Step 1	Step 2	Step 3 (H3a)	Step 1	Step 2 (H3b)
Team size	.46** (.17)	.49** (.17)	.34* (.16)	02 (.30)	.01 (.31)
Established Faultlines		35 (.29)	26 (.27)		19 (.51)
Reflective Reframing			.27** (.09)		
$\mathbb{R}^2$	.16	.19	.29	.00	.00
Adjusted R <sup>2</sup>	.14	.15	.23	03	06
$\Delta R^2$	.16	.03	.20	.00	.00

Table 5.3 Established Faultlines, Reflective Reframing, and Team Creativity

Note: N=40. Standard errors in parentheses.  $^{\dagger}p < 0.10$ ;  $^{*}p < 0.05$ ;  $^{**}p < 0.01$ 

# CHAPTER 6

## DISCUSSION

With a focus on newcomers in diverse teams, this dissertation extends literatures on newcomers' information seeking, member change associated with newcomers in teams, and team faultlines by building our knowledge on newcomers' information seeking and team creativity after the entry of a newcomer. I explored how newcomers' subgroup identification influences their information seeking (individual level) and how established faultlines among team incumbents influence the information elaboration between incumbents and the newcomer, which in turn impacts team creativity (team level).

At the individual level, I hypothesized that newcomers' subgroup identification has a positive indirect relationship with information seeking via their feelings of psychological safety. Unexpectedly, the hypothesized indirect relationship was not statistically significant. I further hypothesized that newcomers' perceived established faultlines moderate the subgroup identification–psychological safety–information seeking relationship such that the indirect relationship would be strengthened when newcomers perceive strong established faultlines and would be weakened when newcomers perceive weak established faultlines. Additionally, I argued that newcomers' perceived conflict among incumbents moderates the subgroup identification–psychological safety– information seeking relationship such that the indirect relationship would be weakened when newcomers perceive high-level conflict among incumbents and would be

strengthened when newcomers perceive low-level conflict. Neither of the hypothesized conditional indirect relationships was statistically significant.

At the team level, I investigated the relationship between established faultlines, information elaboration between incumbents and the newcomer, and team creativity. Specifically, I hypothesized that established faultlines has positive relationships with team creativity and information elaboration (knowledge sharing and reflective reframing). However, these hypothesized direct relationships were not statistically significant. In addition, I examined the direct effect of information elaboration between incumbents and the newcomer on team creativity and found that incumbents' knowledge sharing with the newcomer and their reflective reframing on the newcomer's ideas were positively related to team creativity. Finally, I proposed the indirect relationship between established faultlines and team creativity via information elaboration. Unexpectedly, the hypothesized indirect relationship was not supported.

In the following sections of this chapter, I first discuss the theoretical and practical implications of this dissertation. I then discuss the limitations of the dissertation and directions for future research. At the end of this chapter, I present a brief conclusion of the dissertation.

#### 6.1. THEORETICAL IMPLICATIONS

This dissertation contributes to the literatures on newcomers' information seeking, member change associated with newcomers in teams, and team faultlines in five ways. First, findings regarding the antecedents of information seeking provides a more nuanced understanding of information seeking processes in general. Specifically, I found that newcomers' proactive personality was significantly related to their task-related

information seeking but not social information seeking. Newcomers' team identification was positively related to social information seeking but not task-related information seeking. While newcomers' subgroup identification was negatively related to social information seeking, their perceived conflict among incumbents was positively related to social information seeking (but not task-related information seeking). These findings provide evidence that newcomers' task-related information seeking and social information seek are two different processes and have distinct antecedents. Future research should explore these two types of information seeking as two separate information seeking processes. Additionally, the finding that team identification and subgroup identification have opposite effects on social information seeking highlights the need to explore the distinct mechanisms through which team identification and subgroup identification influence social information seeking. Finally, the positive relationship between newcomers' perceived conflict among incumbents and social information seeking suggests that social information seeking may be fostered by an increased need to better understand what is going on in their team rather than a high level of psychological safety.

Second, this dissertation provides evidence that the direction of the relationship between newcomers' subgroup identification and psychological safety depends on their level of team identification. Newcomers' subgroup identification was found to be positively related to information seeking when their team identification was high. When their team identification was low, their subgroup identification was negatively related to psychological safety. This finding extends the current understanding of psychological safety by showing that when individuals view themselves as part of a team,

belongingness to a subgroup of similar others strengthens their feeling of being secure and safe within the whole team. This suggests that the feeling of being safe within a subgroup may spill over to the overall team. In addition, the unexpected positive correlation between newcomers' team identification and subgroup identification encourages future research to explore these two different but closely related identification processes. One interesting direction of research is to examine whether the relationship between subgroup identification and team identification depends on individuals' tenure in their teams.

Third, the finding regarding newcomers' information source diversity opens the door for exploring from whom newcomers actually seek information. Prior studies on newcomer information seeking predominantly focus on the frequency of information seeking behaviors (e.g., Nifadkar & Bauer, 2016; Tan, Au, Cooper-Thomas, Aw, 2016; Yu & Davis, 2016). However, seeking information from incumbents does not necessarily means that newcomers can get complete and high-quality information, particularly information about their team (i.e., social information). Each team member may have a biased view of their team as a whole, other team members, or the supervisor. If a newcomer frequently seeks information from a same incumbent or several incumbents who are similar to each other, the person is likely to gain a biased view about their team. The findings regarding the diversity of incumbents from whom a newcomer seeks information revealed that proactive newcomers tend to seek information from a relatively homogeneous subset of team incumbents. Additionally, when newcomers have strong identification with their team, they tend to seek information from a relatively

homogeneous subset of team incumbents. Future research should further investigate these relationships and explore the underlying mechanisms to answer the "Why" question.

Fourth, in response to the call for exploring how interactions between incumbents and newcomers impact team creativity (e.g., Choi & Thompson, 2005), this dissertation extends current research on the impact of newcomers on team creativity by providing knowledge on how teams benefit from having newcomers in team creativity. Specifically, findings of this dissertation suggest that information elaboration between team incumbents and newcomers is one of the key processes that impact team creativity when teams have newcomers. In particular, this dissertation identifies two major aspects of information elaboration between incumbents and newcomers that are critical for team creativity, namely, incumbents' knowledge sharing with the newcomer and incumbents' reflective reframing on the newcomer's novel ideas. In addition, the finding that incumbents' direct adoption of newcomers' ideas was not significantly related to team creativity indicates that in order for teams to benefit from having newcomers, it is important for incumbents to go beyond simply adopting the newcomer's ideas and develop novel perspectives based on the newcomer's insights. Although this dissertation did not find support for the effect of established faultlines on the information elaboration between team incumbents and newcomers, it opens the door for future research to explore antecedents of such information elaboration in teams with newcomers.

Last but not least, this dissertation extends the current literature on team faultlines by proposing a unique conceptualization of faultlines which exist in teams that experience the entry of newcomers. Instead of conceptualizing faultlines as dividing lines that exist within the whole team (e.g., Lau & Murnighan, 1998; Thatcher et al., 2003),

this dissertation focuses on the established faultlines that exist among incumbent team members. Building on the idea of Antino et al. (2019: 1445) that faultlines are "informal sense-making structures through which team members interpret their social reality", I argue that established faultlines also allow newcomers to make sense of the social structure that exists among team incumbents. By viewing newcomers as still "outsiders" of their team, this dissertation provides a novel perspective of understanding the consequences of faultlines. Building on this perspective, future research could explore how faultlines within teams may be perceived by members of other teams and their consequences on inter-team interactions, for example, within multiteam systems.

#### 6.2. PRACTICAL IMPLICATIONS

This dissertation also has important practical implications. First, results of this dissertation show that when onboarding new employees, managers should promote newcomers' team identification so that they can quickly become familiar with their team environment. In addition, based on the results, we suggest that managers should be aware that promoting new employees' belongingness to their team may not necessarily increase their proactive efforts to get feedback or suggestions that are related to their task from incumbents. This means managers should provide enough resources for their new employees to fully understand their task and actively provide performance feedback.

Second, findings of this dissertation also suggest that managers should ensure that their new employees can get information from diverse incumbents so that these newcomers will not be biased in their understanding about how people in the team work together and relate to each other and how newcomers are expected to behave in the team. Managers can assign incumbents as mentors to their new employees and rotate these

newcomers among several different mentors, who are different in gender, age, tenure in the team, position, or other characteristics.

Finally, this dissertation provides managers with novel knowledge about how to promote team creativity when their teams have newcomers. Specifically, no matter the new employees are hired to replace members who left the team or add unique perspectives or expertise to the team, managers should encourage team incumbents to provide a detailed and complete introduction of their current work approach, where they are in their task, the framework they use, the feedback they get from managers or customers, and how they work together as a team. Additionally, managers should pay attention to how their teams utilize newcomers' unique ideas and encourage team incumbents to go beyond simply adopting the newcomers' unique insights.

## 6.3. LIMITATIONS AND FUTURE DIRECTIONS

There are some opportunities for future research to address the limitations of this dissertation. First, data collected in the empirical study that investigates the effect of newcomers' subgroup identification on information seeking was potentially biased because all of the data was collected from the newcomers. In this regard, future research will benefit by employing multiple sources of information. For example, instead of focusing on newcomers' perceived established faultlines, future research could investigate the effect of activated established faultlines among team incumbents on newcomers' information seeking using the activated faultlines measure developed by Antino et al. (2019). In this way, we can obtain a more comprehensive understanding about how a team's social reality among its incumbents impacts newcomers' perceptions

and behaviors. Additionally, future studies could also use behaviorally coded indicators of conflict among team incumbents and newcomers' information seeking.

Second, the finding that the reliability of the psychological safety measure used in this dissertation increased over time suggests that the four items from Edmondson's scale (1999) may not be the best measurement of newcomers' psychological safety, particularly within the first month after they enter their team. One reason could be that the focus of some of these items such as making mistakes and taking a risk in a team is not relevant for newcomers who just join a team and start their job. Another reason might be that half of the items used in the dissertation were reverse coded. Future studies could track newcomers' psychological safety using the complete scale and examine how the items hold together over time. Future research could also develop a newcomer psychological safety scale that best captures newcomers' feeling of being safe and being willing to explore within their new job without the fear of negative consequences.

Third, another potential limitation related to timing is the measurement of team identification. In the newcomer information seeking study, participants reported relatively high level of team identification (M=5.63, SD=1.00) in the first survey which was sent out at the end of the fourth week after participants started their job. This finding implies that in order to have a complete knowledge about how newcomers' subgroup identification and team identification are related to each other and how they jointly impact newcomers' psychological safety, future research should track newcomers' subgroup and team identification from the start date of their job using experience sampling method. This allows researchers to capture the trajectory of subgroup and team identification and explore whether team identification is more salient earlier on in the

socialization process and subgroup identification is more salient later on in the process. By tracking the development of team and subgroup identification, researchers can also explore how the relationship between team identification and subgroup identification and their impacts on newcomer information seeking change over time.

Fourth, regarding the experiment where I investigated team creativity when teams experience the entry of newcomers, one limitation is the manipulation of established faultlines. Established faultlines were manipulated using information about participants' personality type. An ideal manipulation would create faultlines based on both deep-level individual attributes such as personality, value, or goal and demographic characteristics such as gender to make the strong faultlines more visible and more likely to be activated. Future research could also manipulate faultlines that are be more relevant to creative tasks. For example, faultlines that are associated with different background information about the tasks, or different perspectives of understanding or approaches the tasks.

Finally, the effect of established faultlines on creativity of teams that experience newcomers was investigated using a laboratory experiment. One limitation of this method is the limited time that team members spend before a newcomer enters the team. When conducting the experiment, one challenge was to balance the amount of time that team incumbents spent together on discussing ideas about the task and the room that were left for the newcomer to contribute to the task. Future research could use a student simulation that allows the introduction of newcomers to established teams in which participants have already spent several weeks working together on a team project. For example, researchers could transfer one member in each team to another team so that each team would experience a member change associated with having a newcomer.

# 6.4. CONCLUSION

The current literature on newcomers has demonstrated the importance of newcomers' information seeking on their socialization to teams and the consequences of newcomers on team outcomes such as team creativity. However, there is limited knowledge on the antecedents of newcomer information seeking in diverse teams and antecedents of the creativity of such diverse teams after the entry of a newcomer. In this dissertation, with a focus on newcomers in diverse teams, I investigated two phenomena at the individual level and team level, respectively. At the individual level, I explored the influence of newcomers' subgroup identification on information seeking via their feeling of psychological safety and the role of their perceived established faultlines and conflict that exist among team incumbents. By investigating these relationships using longitudinal data, I showed that newcomers' subgroup identification and team identification jointly impact their psychological safety and that task-information seeking and social information are two separate processes that have distinct antecedents. At the team level, I explored the relationship between established faultlines, information elaboration between incumbents and newcomers, and team creativity. Results showed that team incumbents' knowledge sharing with the newcomer and their reflective reframing on the newcomer's unique insights have positive effects on team creativity. This finding provides support to the idea that the key to team creativity upon the entry of a newcomer is team incumbents' interactions with the newcomer. Overall, this dissertation extends our knowledge on newcomers' information seeking, member change associated with newcomers in teams, and team faultlines.

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## APPENDIX A

### SURVEY ITEMS FOR CHAPTER 4

#### General/demographic information

Please check or fill in the appropriate information:

Full Name: \_\_\_\_\_

Sex: Male Female

Age: \_\_\_\_\_

Start date of this job (mm/dd/yyyy):

Job title\_\_\_\_\_

What department do you work for in your current organization (e.g., marketing, HR,

etc.)?\_\_\_\_\_

What is your race/background?

a. Caucasian

- b. African American
- c. Asian/Pacific Islander
- d. Hispanic/Latino
- e. Other

Country where you grew up \_\_\_\_\_

City / State where you grew up \_\_\_\_\_

Full time work experience: \_\_\_\_\_ years, \_\_\_\_\_ months

Part-time work experience \_\_\_\_\_ years, \_\_\_\_\_ months

Is this the only job offer you got? Yes No Which of the following best describes your role in the organization you currently work for?

Upper Management	Middle Management	Junior Management	
Administrative Staff	Support Staff	Trained Professional	
Consultant	Skilled Laborer	Researcher	
Temporary Employee	Self-employed/Partner	Other	

Which of the following categories best describe the industry you currently work in?

Agriculture, Forestry, Fishing and Hunting	Utilities
Computer and Electronics Manufacturing	Wholesale
Transportation and Warehousing	Software
Broadcasting	Real Estate, Rental and Leasing
Primary/Secondary (K-12) Education	Health Care and Social Assistance
Hotel and Food Services	Legal Services
Homemaker	Religious
Mining	Construction
Retail	Publishing
Telecommunications	Information Services and Data Processing
Finance and Insurance	College, University, and Adult Education
Arts, Entertainment, and Recreation	Government and Public Administration
Scientific or Technical Services	Military
Other Manufacturing	Other Information Industry
Other Industry	

### **Team membership**

A team is a group of people with complementary skills who work interdependently toward collective goals. Members of a team also usually report to the same supervisor. (Note that work teams may be geographically dispersed.)

Are you part of a team in your current job?

Yes No

#### Team size

How many people are there in your team (including you)?

### Number of other numbers

As you just started this new job and joined your team one or two months ago, you are typically viewed as a newcomer of your team. Newcomers are usually those who have been in a new job for less than 12 months. Others in your team have been part of the team for a while and are typically viewed as incumbents.

How many newcomers are there in your team (including you)?

#### **Proactive Personality**

Below are phrases that describe people's behaviors. Please select the option that best describes you as you usually are.

- 1. Nothing is more exciting than seeing my ideas turn into reality.
- 2. If I see something I don't like, I fix it.
- 3. No matter what the odds, if I believe in something I will make it happen.
- 4. I love being a champion for my ideas, even against others' opposition.
- 5. I am always looking for better ways to do things.
- 6. If I believe in an idea, no obstacle will prevent me from making it happen.

#### Job Efficacy

Below are phrases describing perceptions of job-related abilities. Please select the option that best describes how you honestly see yourself in your current job right now.

- 1. I am able to achieve the goals which are set for me.
- I am confident that I can perform effectively on the different tasks expected of me.
- 3. Even when things are tough I can perform well.
- 4. I am able to successfully overcome many challenges that I have in my job.

#### **Subgroup Identification**

Below are phrases describing perceptions of relationship with incumbents (i.e., individuals who have been part of a team for more than 12 months). Please select the option that best describes how you honestly see your relationship with incumbents in your team right now.

- 1. In my team, I fit well into a subgroup of incumbents who are just like me.
- In my team, I belong to a subgroup of incumbents who I feel are very similar to me.
- In my team, I identify with a subgroup of incumbents who I feel are very similar to me.
- 4. In my team, there is a subgroup of incumbents that is an important reflection of who I am.

#### **Team Identification**

Below are phrases describing perceptions of team connections. Please select the option that best describes how you honestly see yourself in your team right now.

- 1. I feel that I fit well in my team.
- 2. I feel that I belong to my team.
- 3. I identify with other members in my team.
- 4. My team as a whole is an important reflection of who I am.

#### **Perceived Established Faultlines**

Below are phrases describing relationships among incumbents (i.e., individuals who have been part of a team for more than 12 months). Please select the option that best describes how you honestly see those incumbents in your team right now.

- 1. I perceive incumbents in my team as being split up into different subgroups.
- 2. I perceive incumbents in my team as being divided into different subgroups.
- 3. I perceive incumbents in my team as containing at least two informal subgroups.

#### **Psychological Safety**

Below are phrases describing feelings of working with your team members. Please select the option that best describes how you honestly feel right now in your team.

- 1. If I make a mistake on this team, it is often held against me.
- 2. It is safe to take a risk on this team.
- 3. It is difficult to ask other members of this team for help.
- 4. Working with members of this team, my unique skills and talents are valued and utilized.

#### **Perceived Conflict**

Below are phrases describing conflict in teams. Please select the option that best describes how you honestly see the conflicts among the <u>incumbents</u> in your team right now.

- 1. How much friction is there among old timers in your team?
- 2. How much are personality conflicts evident among incumbents in your team?
- 3. How much tension is there among incumbents in your team?
- 4. How much emotional conflict is there among incumbents in your team?
- 5. How often do incumbents in your team disagree about opinions regarding the work being done?
- 6. How frequently are there conflicts about ideas among incumbents in your team?
- 7. How much conflict is there among incumbents in your team regarding the work they do?
- 8. To what extent are there differences of opinion among incumbents in your team?
- 9. How often do incumbents in your team disagree about who should do what?
- 10. How frequently do incumbents in your team disagree about the way to complete team tasks?
- 11. How much conflict is there among incumbents in your team regarding the delegation of tasks?

#### **Information Seeking**

On a scale of 1-5, please select the option that best describes how you honestly see yourself engage in the following activities in the past two weeks (Incumbents are individuals who have been part of a team for more than 12 months).

- 1. How frequently do you ask incumbents in your team for feedback about your overall job performance?
- 2. How frequently do you ask incumbents in your team for information about what is expected of you regarding the technical aspects of your job?

- 3. How frequently do you ask incumbents in your team for feedback about the technical aspects of your job?
- 4. How frequently do you ask incumbents for feedback about the appropriateness of your social interactions in the team?
- 5. How frequently do you ask incumbents in your team for information about what is expected of you regarding the social aspects of the job?
- 6. How frequently do you ask incumbents in your team for feedback about the social aspects of your job?

# **Source Diversity**

Please select the option that best describes the extent that you feel the incumbents from which you frequently seek information are similar to each other.

Not similar at all	2	Somewhat similar	4	Very similar
1				5

## APPENDIX B

### SURVEY ITEMS FOR CHAPTER 5

#### General/demographic information

Please check or fill in the appropriate information:

Full me: \_\_\_\_\_

Sex: Male Female

Age: \_\_\_\_\_

What is your race/background?

- a. Caucasian
- b. African American
- c. Asian/Pacific Islander
- d. Hispanic/Latino
- e. Other

#### **Proactive Personality**

To what extent do you agree with each statement about you as you generally are now, not

as you wish to be in the future?

- 1. Nothing is more exciting than seeing my ideas turn into reality.
- 2. If I see something I don't like, I fix it.
- 3. No matter what the odds, if I believe in something I will make it happen.
- 4. I love being a champion for my ideas, even against others' opposition.
- 5. I am always looking for better ways to do things.

6. If I believe in an idea, no obstacle will prevent me from making it happen.

### **Big Five Personality**

To what extent do you agree with each statement about you as you generally are now, not

as you wish to be in the future? In general I...

- 1. Am the life of the party
- 2. Sympathize with others' feelings
- 3. Get chores done right away
- 4. Have frequent mood swings
- 5. Have a vivid imagination
- 6. Don't talk a lot
- 7. Am not interested in other people's problems
- 8. Often forget to put things back in their proper place
- 9. Am relaxed most of the time
- 10. Am not interested in abstract ideas
- 11. Talk to a lot of different people at parties
- 12. Feel others' emotions
- 13. Like order
- 14. Get upset easily
- 15. Have difficulty understanding abstract ideas
- 16. Keep in the background
- 17. Am not really interested in others
- 18. Make a mess of things
- 19. Seldom feel blue

20. Do not have a good imagination

# **Faultline Perception**

To what extent do you agree with the following statement?

- 1. I perceive my team as being split up into two subgroups of team members based on personality type.
- 2. I perceive my team as being divided into two subgroups of team members based on personality type.
- 3. I perceive my team as not containing any subgroups.